

DEVELOPMENT IN THE SHADOW

**STUDIES IN
UKRAINIAN ECONOMICS**

I.S. KOROPECKYJ

The Russian occupation of Ukraine under the tsarist and communist regimes has exerted a decisive influence on the development of Ukrainian economics. The present collection of essays, written over a ten-year period, explores some of the pertinent issues. The 1917 Revolution can be taken as a logical dividing point for comparing the impact of the two different political and economic systems on the performance of Ukraine's economy and the welfare of its population.

It appears that the effect of the Soviet regime was in general harmful to Ukraine. Relative to other Soviet republics, its economic growth was one of the lowest and income per capita deteriorated. Despite the inferior performance of the Ukrainian economy, the Soviet regime continued year in year out the unrequited transfer of part of the national income from Ukraine to other regions of the USSR in greater amounts than its tsarist predecessor. Geopolitical considerations were the primary motivation. Analysis of most of the period since World War II suggests that, in order to achieve Soviet political and military goals, Ukrainian authorities had to be left without any real decision-making power, despite official propaganda to the contrary.

In order to integrate Ukraine into the Russian Empire/USSR, it was not enough to control its economy completely: its intellectual base had to be destroyed as well. Before 1917 the imperial establishment tended to appropriate the contributions of Ukrainian scholars to economics—a practice that has continued under the Soviets.

The overall conclusion of this study is that Moscow's administration of the Ukrainian economy, regardless of the system in place, has been detrimental to its performance and to the population's welfare, and dangerous to the survival of the Ukrainian nation itself.

**Development in the Shadow:
Studies in Ukrainian Economics**

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I.S. Koropeckyj

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Development in the Shadow: Studies in Ukrainian Economics

It is a piece of idle sentimentality that truth, merely as truth, has any inherent power denied to error or prevailing against the dungeon and the stake. Men are not more zealous for truth than they often are for error.... The real advantage which truth has consists in this, that when the opinion is true, it may be extinguished once, twice, or many times, but in the course of ages there will generally be found persons to rediscover it.

John Stuart Mill

Світлій пам'яті моїх батьків,
о. Володимира та Софії з Татомирів Коропецьких

Preface

The essays in this collection are related not only thematically but also methodologically. Underlying the analysis of economic problems in all of them are two basic values. The first is that each nation has an inherent right to be politically independent of other nations. The second is the right of each nation to make its own economic decisions and to enjoy the fruits of its labour. Thus these essays fall into the realm of Political Economy.

The past and present political and economic conditions of Ukraine justify this approach to the study of its economy. Since Ukraine was a part of the Russian Empire and, subsequently, of the USSR, it has been deprived of its basic political right for about three centuries. Consequently, economic decisions have been made by Moscow (Petersburg) governments not in the interest of Ukraine but with the entire Russia/USSR in mind. This can be clearly seen in the fact that a part of Ukraine's national income has been continuously transferred to other regions of Russia/USSR.

The political status of Ukraine is a factor of such overriding importance and its effect on economic performance and population welfare so predominant that its analysis must serve as a starting point for study of all problems of Ukrainian economy. Not all of them can be discussed here. The following have been addressed in this collection. (1) Since Ukraine was a part of two different economic and political systems, divided by the 1917 Revolution, the question is whether there was any difference in the treatment of its economy. The empirical investigation in Part I suggests that no significant difference can be discerned. (2) While under the Tsarist regime no pretension was made as to the status of Ukraine, the postrevolutionary leaders have attempted to convince the public home and abroad that the nation is an independent Soviet republic. Part II shows that this was not the case with respect to economic decision-making. (3) Finally, greatness of a nation can be determined by the achievements of its people in all fields of human endeavour. Without such progress a nation is condemned to perish. Under the Russian Empire achievements of Ukrainian scholars, including economists,

were ascribed to the Russian nation, as is shown in Part III. After the Revolution, only the label was changed from Russian to Soviet. There is but one conclusion to be drawn from the discussion in all three parts: as long as Ukraine is ruled from Moscow and not from Kiev, regardless of the political and economic system, the effect on Ukraine's economy and its people will continue to be negative.

In writing these essays over the past ten years, I benefited from the help of many colleagues. Responsibility for any facts cited or views expressed in this book, however, lies solely with me. I would like to express my gratitude, in particular, to the following for reading parts of this volume at various stages of my work and for offering advice: Holland Hunter, Aron Katsenelinboigen, Leslie Kool, Fyodor Kushnirsky, Frederic Pryor, Ingrid Rima, and Peter Wiles. Other colleagues, Osyp Danko, Zbigniew Fallenbuchl, James Gillula, David Good, Robert Lewis, Vasyl Markus, Oleksander Ohloblyn, Stephen Rapawy, and Bohdan Yasinsky were helpful with their suggestions on specific points. My thanks go to my son Roman for always giving me judicious advice and providing me with bibliographical assistance promptly. Above all, I am grateful to my daughter Sophia for her continuous help as a research assistant, editor and translator. She is also a budding economist against whose fresh knowledge I could test problems as they arose. I wish to thank the Canadian Institute of Ukrainian Studies, University of Alberta, and especially its former Director Manoly Lupul and the present Director Bohdan Krawchenko for financial aid in preparation of this manuscript and Temple University for a travel grant, lower teaching load, and secretarial help.

Most of the essays in this volume were published previously. Two of them were translated from Ukrainian and some editorial and minor updating changes were made in all of them. Specifically, individual chapters appeared in the following publications: Chapter 1 as "The Ukrainian Economy Prior to World War I and at the Present," in *Collectivization and Its Impact on the Ukrainian Population and on Soviet Agricultural Productivity*, Hearing before the Committee on Agriculture, Nutrition, and Forestry, United States Senate (Washington, D.C.: U.S. Government Printing Office, 1984); parts of Chapter 1 and 3 as "A Century of Moscow-Ukraine Economic Relations: An Interpretation," *Harvard Ukrainian Studies*, December 1981; Chapter 5 as "Economic Prerogatives," in *The Ukraine within the USSR: An Economic Balance Sheet* (New York: Praeger Publishers, 1977); Chapter 6 as "Academic Economics in the Nineteenth-Century Ukraine," in *Selected Contributions of Ukrainian Scholars to Economics* (Cambridge: Distributed by Harvard University Press for Harvard Ukrainian Research Institute, 1984); Chapter 7 as "Ukrainskyi ekonomist Ivan Vernadsky," in *Journal of Ukrainian Studies*, Winter 1984; Chapter 8 as "Ivan Vernadsky: un ucraino dell'ottocento studioso del pensiero economico italiano," *Rivista di Politica Economica*, July 1986; Chapter 9 as "Ekonomichnyi rozvytok halytskoho selianstva u pratsiakh

o. Tyta Voinarovskoho," in *Intrepido Pastori*, Festschrift for Patriarch and Cardinal Josyf Slipyj (Rome: Ukrainian Catholic University, 1984). I wish to thank the publishers for their kind permission to use these essays in this collection.

This manuscript was completed and submitted for publication before Mikhail Gorbachev's assumption of power in the USSR in 1985. Therefore, it does not include a discussion of his various reforms and subsequent developments.

I.S.K.

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List of Publication Abbreviations

AUAAS	Annals of the Ukrainian Academy of Arts and Sciences in the United States
BU	Bilshovyk Ukrainy
ChSh	Chervonyi shliakh
DSUP	Digest of the Soviet Ukrainian Press
EG	Ekonomicheskaiia gazeta
ERU	Ekonomika Radianskoi Ukrainy
HOPE	History of Political Economy
HUS	Harvard Ukrainian Studies
INHED	Istoriia narodnoho hospodarstva ta ekonomichnoi dumky Ukrainskoi RSR
JEH	Journal of Economic History
KU	Komunist Ukrainy (Kommunist Ukrainy)
KUI	Kievskie universitetskie izvestiia
Narkhoz	Narodnoe khoziasistvo SSSR (or republic)
P	Pravda
PKh	Planovoe khoziaistvo
PC	Problems of Communism
PP	Problemy pravoznavstva
PU	Pravda Ukrainy
RP	Radianske pravo
RU	Radianska Ukraina
S	Survey

SGP	Sovetskoe gosudarstvo i pravo
SR	Slavic Review
SS	Soviet Studies
VE	Voprosy ekonomiki
VT	Vneshniaia torgovlia SSSR
VVR	Visti Verkhovnoi Rady Ukrainskoi RSR
ZONT	Zapysky Odeskoho Naukovoho pry U.A.N. Tovarystva

Part I

Ukrainian Economy Prior to World War I and at Present

The attachment to one's own people, and to the dwelling place of one's own people, has far too much that is good and lovely about it for one to wish it to disappear. The groups that have formed nations, and some of the groups within nations, are social units that have value; by putting them into a 'melting pot' much is lost. When we examine our aspiration, it is for a Development, an Absorption, which is consistent with the maintenance of social identity.

Sir John R. Hicks

Chapter 1

Introduction, Summary, Conclusion

Imperialism...is atavistic in character. It falls into that large group of surviving features from earlier ages that play such an important part in every concrete social situation. In other words, it is an element that stems from the living conditions, not of the present, but of the past—or, put in terms of the economic interpretation of history, from the past rather than present relations of production. It is an atavism in the social structure, in individual, psychological habits of emotional reaction. Since the vital needs that created it have passed away for good, it too must gradually disappear....

Joseph A. Schumpeter

Introduction

Ukraine was integrated politically and economically into the Russian Empire in the middle of the eighteenth century. From that time up to the Revolution in 1917, Ukraine with respect to economics was just another region within the boundaries of the Empire's national economy. Since the Revolution, Ukraine has been organized into a constituent republic of the USSR, and the Kiev government has possessed nominally extensive political and economic

prerogatives. In reality, however, all decision-making powers have been concentrated to an extreme in the hands of the all-Union authorities in Moscow. As a result, Ukraine has been unable to conduct its own economic policy, as its interests have been subordinated to those of the entire USSR. Thus, Ukraine continues to be an economic region of the integrated national economy of the USSR and will be considered as such in what follows.

As in the overwhelming majority of mergers between two previously independent political entities or by the absorption of one entity by another into one unified state, the integration of Ukraine into the Russian Empire was undertaken for political reasons. An analysis of the political side of this integration lies outside the scope of the present study. Of interest here is the effect of Ukraine's membership in this larger political and economic entity on the development of its economy, particularly relative to that of other regions of the Tsarist Empire and the USSR, and ultimately on the welfare of its population.

In order to analyze the effect of Ukraine's integration into the Empire's and subsequently the USSR economy on the development of Ukraine's economy, one of the following two investigations should be undertaken. First, economic development of Ukraine as if it were an independent country should be simulated from the mid-eighteenth century to the present. The obtained standard of living should then be compared with the existing welfare in the Ukrainian SSR. However, such an extrapolation would be extremely difficult to accomplish. For one thing, statistical data for the eighteenth and most of the nineteenth centuries barely exist. Furthermore, it would be necessary to estimate the effect on economic development not only of the growth of resources and technological progress, but also of various historical occurrences. The effect of the latter is quite difficult to estimate. Second, a similar investigation can be undertaken from the present to the mid-eighteenth century. But this approach is no less difficult.

There is, however, an element in the relations between Ukraine and the Russian Empire and its Soviet successor which allows us to focus our analysis. The Revolution of 1917 brought a radical change in the political, social, and economic structure of the former Empire's territory. With respect to economics, the market economy of a backward state has been replaced by a socialist or, more accurately, Soviet-type economy. At the same time, Ukraine was retained within the jurisdiction of the new political and economic entity. In view of the continuing subordination of Ukraine to the Moscow authorities, but taking into account the change in the economic system, a modest question can be posed: what was the economic experience of Ukraine under the new regime as compared with the prerevolutionary period? To answer this question one can compare relevant variables for the Ukrainian economy for representative periods before and after the Revolution.

A direct comparison of relevant variables for Ukraine alone over a seventy-year period will not be methodologically sound. Such comparisons are affected by the index number problem. To minimize that difficulty, a different question can be asked: how has Ukraine fared in comparison with other regions of the Empire and the USSR during this same period?

It is necessary to emphasize that relative improvement or deterioration in Ukraine's economic development or the welfare of its population cannot be attributed entirely to the change in economic and political system. A host of factors in Ukraine or in the USSR as a whole could have differentially affected the Ukrainian economy. The following come readily to mind: the sectoral unevenness of technological progress; the discovery of new raw material sources; differential population growth; changes in consumer tastes at home and abroad; and the international situation. The tools of economic analysis do not adequately allow for the allocation of economic change to individual factors present during the period under consideration. Therefore, for the purposes of this study, we have to assume that economic change in the Ukrainian economy relative to that of other regions of the USSR was primarily the result of the change from the Tsarist to the Soviet political and economic system. However, the possibility of a substantial impact from other factors must be allowed for.

The variables which can be used to represent the economic conditions of Ukraine for the comparison of these conditions between the prerevolutionary period and the present time are numerous. Only two will be used in this chapter:

1. national income—the most comprehensive indicator of the economic capacity of a region or a country and
2. national income per capita—the most general indicator of population welfare.

The choice of indicator has been based not only on their importance, but also on the availability of statistical data.

In this part an analysis will be undertaken on the basis of estimates prepared by the author and other researchers. The main purpose here is not so much the presentation of new estimates of relevant variables as an interpretation of the available evidence. Moreover, improvement on the available estimates cannot often be made in view of the lack of access to primary sources. To increase the reliability of our conclusions, we will concentrate our discussion not on a single estimate, but on the set of estimates of a particular variable prepared by various scholars. Therefore, no one estimate will be considered "correct," but confidence will be placed in the consistent trends among the estimates.

As indicated above, in this study, Ukraine is treated as an economic region. Before the Revolution the bulk of Ukraine was occupied by the Tsarist

Empire. The remainder of Ukraine was under Austria-Hungary: East Galicia and Bukovyna directly under Austria; and Transcarpathia under Hungary. The boundaries of the present-day Ukrainian economy are confined to those of the Ukrainian SSR, although the republic does not encompass all Ukrainian ethnographic territories. The term "Russia/USSR" denotes the political entities before and after the Revolution. The term "ethnic Russians" refers to the Russian nationality; their territory is called "ethnic Russia" or "the Russian SFSR" after the Revolution. It should be noted that the RSFSR contains several nationalities other than ethnic Russians. The terms "republic" and "region" or "interrepublic" and "interregional" are used interchangeably for the post-1917 period.

Summary

In theoretical terms, an integration of two or more previously independent nations should facilitate the production of public and private goods at a cheaper cost than would be possible in separate nations. Expanding integration to more nations and thus lowering costs further may sometimes be avoided in order to prevent tension among the increased number of ethnic groups, with different preferences for nationalistic public goods. With respect to Russia/USSR, the historical record shows that such preferences to non-Russian nationalities were neglected or overruled by the Moscow government.

It appears that the Ukrainians anticipated that their preferences for nationalistic public goods (political autonomy, culture, tradition) would not be respected when Ukraine became incorporated into the Russian Empire and subsequently into the Soviet Union. They fought against incorporation, and the governments of the Russian Empire and of the Soviet Union forcibly overruled the preferences of Ukrainians for political independence as a public good. After incorporation, the preferences of Ukrainians for nationalistic public goods were not only ignored, but those of Russians were often imposed on them by law. Certainly, one cannot argue that the public goods supplied by the Moscow government have maximized the total utility of Ukrainians. There were individual exceptions among them. Some members of the former Cossack elite, through their support of the Tsarist government, relinquished their preference for nationalistic public goods in exchange for wealth and power. By the same token, Ukrainian members of the Soviet *nomenklatura* have benefited from the Soviet regime to the same degree as their Russian counterparts insofar as they abandoned their preferences for this kind of public good.

The supply of private goods in Ukraine was also affected by integration with Russia/USSR. This relationship is studied here only with respect to Ukrainian external trade. The degree of integration of Ukraine and

Russia/USSR, as shown by the export-to-national income ratio, increased between the prerevolutionary and present periods. Ukrainian trade with the rest of the USSR also increased during this period. The relative increase in trade between Ukraine and other Soviet republics does not necessarily indicate greater integration with the entire USSR. In fact, Ukraine trades primarily with the European USSR and very little with other Soviet regions. It is not clear to what extent economic considerations, which are usually of a more permanent nature, and to what extent easily reversible political considerations are responsible for the increase in this trade.

The commodity composition of Ukrainian external trade has not changed radically under Soviet rule as compared with the prerevolutionary period. Ukraine is no longer an important exporter of unprocessed agricultural products to European nations, but has increased its exports of mineral raw materials and industrial materials (essential for Soviet-type industrialization) to the European members of Comecon. Ukrainian imports from abroad consist mainly of machinery, equipment, transportation vehicles and equipment, and other processed goods, similar to the situation before the Revolution. Domestically, Ukraine now exports processed foods and industrial materials mainly to the European parts of the Russian Federation and receives in return various products of light industry, mainly textiles, machinery and such basic products as timber and oil.

The structure and geographical distribution of Ukrainian external trade before the Revolution and at the present time have not been determined entirely by scarcity relations. Long before the Revolution, Tsarist policies influenced Ukrainian trade. Tax and railroad policies stimulated the export of grain to foreign countries. Tariff policies protected the growth of Donbas industries and reoriented the Ukrainian demand for processed consumer goods (textiles) from abroad to domestic producers in the Empire. On balance, consumer welfare in Ukraine probably suffered from such government intervention.

Under the Soviet regime government control over Ukrainian external trade became complete. Trade like other economic sectors, became subordinated to the overall objectives of the Moscow leadership. We can agree with some Soviet Ukrainian economists that the present trade structure of the republic has a detrimental effect on the productivity of its entire economy and on the base of nonrenewable raw materials. They advocate change in the production structure, a precondition for change in the trade structure, recommending greater attention mainly to the growth of the machine-building branch, in which technological progress advances faster than in other industrial branches. However, Ukrainian exports to the Comecon countries are the prime tool for binding their economies to the Soviet economy. In addition, the interrepublic trade of Ukraine is subordinated to the overall economic objective of the Soviet Union—a rapid build-up of the Asiatic regions of the Russian SFSR. It appears that the structure of Ukraine's economy and consequently of its

external trade will remain unchanged as long as the geopolitical objectives of the Moscow leaders continue unchanged.

For about half of the century prior to the Revolution, a period for which some data are available, Ukraine's contributions to the state budget exceeded its receipts from it by about 3 percent of the region's net material product. The transfer of funds from Ukraine is confirmed by its positive balance of trade with other countries of the world and with the rest of the Empire, at least for the few years for which such calculations can be made. After the Revolution, both before and after the Second World War, the outflow of national income from Ukraine continued. Post-revolutionary transfers were larger than during the prerevolutionary period, ranging from between 10 and 20 percent of the net material product, depending on the period and methodology of calculation. In contrast to other cases of transfers of funds from one country to another or from one region to another, the Ukrainian funds were appropriated outright by the Moscow government. Moscow did not ask the Ukrainian population's approval, paid no interest, and had no intention of returning the funds. The policies of the central authorities were primarily reflected in the declining Ukrainian portion of total USSR investment, which had been below the region's share of USSR population most of the time.

One possible use for the transferred Ukrainian resources may have been to develop backward regions of Russia/USSR. This consideration applies primarily to the Soviet period. During the postrevolutionary period until the late 1950s, an interregional equalization trend was observed. The transfer of the investable funds from Ukraine could have been of some importance here. Since the late fifties, however, interregional inequality has again been on the rise. Another use of Ukrainian funds may have been associated with the effort to maximize output for the entire USSR. The data for Ukraine, the Russian SFSR, and Kazakhstan show that during various periods since the late 1920s republics with high productivity growth in industry or agriculture did not usually receive investment shares greater than their shares of total USSR population.

Since neither interregional equalization nor output maximization in Russia/USSR seem to have been decisive for Ukraine's loss of funds, some authors have sought the cause in ethnic considerations. They argue that the Moscow government, dominated by Russians, used Ukrainian resources for the development of Russian regions. This hypothesis can be questioned on various grounds. Before the Revolution, the excess of budget receipts over budget payments was registered by most of the border gubernias inhabited by non-Russians as well as the gubernia in which the country's capital was located. Most of the Russian gubernias, like the Ukrainian ones, paid more to the state budget than they received from it. After the Revolution, several Russian oblasts were shown to have the lowest standard of living in the country. The investment per capita was not higher in the Russian SFSR as a

whole, but only in its Asiatic regions. Finally, Russians now account for about one-fifth of Ukraine's population. Any economic discrimination against Ukraine would affect its Russian minority to the same degree as ethnic Ukrainians.

It appears that the reason for the appropriation of Ukrainian resources by the Moscow government must be sought in the military and political concerns of the Tsarist Empire and subsequently of the USSR. Before the Revolution, Ukraine as an economic region supplied funds for the political integration of the far-flung Empire and for the build-up of the railroads for military purposes. For the same reasons, since the early 1930s, the USSR has turned its attention to the development of the Ural regions and, following the Second World War, to the development of Western and Eastern Siberia, the Far East and Northern Kazakhstan. The determination to continue with such policies, to the detriment of Ukrainian economic development, can be seen in the construction of the Baikal-Amur Mainline railroad and the construction plans for several territorial-production complexes in the Asiatic part of the Russian SFSR.

The effect of Ukraine's incorporation into Russia/USSR and of its continuous loss of resources on total income and on income per capital in Ukraine, relative to the rest of the country, is studied for 1913, 1970, 1980 and 1986. To compare these indicators in the periods before and after the Revolution one must establish a population base. While information on the present population of Ukraine is reliable, the same is not true for the prerevolutionary benchmark year. The official estimates by TsSU of the 1913 population on the territories of the present Ukrainian SSR are about 10 percent lower than our estimates derived on the basis of Tsarist TsSK data and of the Leasure-Lewis methodology. Despite the fact that the latter estimates may be somewhat inflated, they seem preferable to the TsSU estimates, for which no methodology of derivation is divulged. It is possible that the retention of lower estimates for 1913 may be a deliberate attempt by the Soviet authorities to blunt the tremendous population losses that occurred in Ukraine under Soviet rule.

To facilitate our comparison, Ukrainian national income was calculated for 1913, 1970 and 1980, according to the same methodology used to derive the national income of Russia and the USSR, respectively, in these years. The reliability of derived indicators for Ukraine is not the same for these three years. The statistical foundation, especially for Western Ukraine, in 1913 is poor compared with that for 1970 and 1980. The 1913 results should be considered preliminary. Our comparison does not end with the year 1980, since the eighties until now, like the decade of the seventies, witnessed considerable deceleration in the Ukrainian growth rate relative to other Soviet republics. No independent estimation of the Ukrainian national income can be undertaken for the most recent year because of the dearth of necessary statistical

information. Therefore our analysis of 1986, the most recent year for which the data were available at the time of writing, must be made on the basis of Soviet national income data.

A comparison of our indicators for Ukraine and Russia/USSR over sixty or seventy years would not be meaningful because of the index number problem. To minimize this methodological difficulty, comparison is made between the situation of Ukraine relative to the rest of the Tsarist Empire in 1913 and its present situation relative to the rest of the USSR.¹ With respect to population, the Ukrainian share decreased by about four percentage points during the period under discussion. Ukraine decreased its share in the Russia/USSR national income by two to three percentage points between 1913 and 1970. During the subsequent fifteen years the income share dropped by an additional two percentage points. With respect to individual sectors, Ukrainian shares behaved differentially: agriculture slightly increased while industry decreased in importance within the USSR. An especially severe decline can be observed in the shares of Ukrainian other material production branches. The service sector's share declined in terms of fixed capital but increased slightly in terms of employment. The most plausible explanation for this behaviour of Ukrainian economic sectors again concerns the emphasis of Soviet planners on the development of some Asiatic regions of the USSR.

Often, national income per capita is assumed to be an indicator of population welfare and of productive capacity. In the case of the USSR, including Ukraine, it is more precisely an indicator of productive capacity, because of the relatively high share of investment and government expenditures in the total national income. Keeping in mind this qualification, one can say that Ukraine's standing relative to the Western advanced countries improved between 1913 and 1970 in terms of national income per capita. The lead of such countries as the United States or Great Britain over Ukraine was cut by one-half. Ukraine reached a level of economic development approximately equal to Italy's. With respect to other union republics of the USSR, until 1970 improvement in Ukraine's economic standing was achieved at the cost of a relatively greater decline of its population share than of its national income share in the USSR total. During the seventies and the first half of the eighties, Ukraine dropped back to its 1913 levels in this respect. As a result, its ranking declined from fifth to sixth place in income per capita among the fifteen union republics. In view of the external and internal objectives of the Soviet leadership, it would be optimistic to expect any improvement in the overall economic position of Ukraine relative to other republics in the foreseeable future.

Conclusion

One can conclude that, particularly with respect to Ukraine, the regional

policy that existed under Tsarist capitalism before 1917 continued largely unchanged under the Soviet system. Under both regimes, this policy was guided by the geopolitical demands of the state as perceived and acted upon by the central leadership. This finding seems to confirm the prediction by Max Weber (1968, pp. 919–20), made before the emergence of the first socialist state, as well as the conclusion reached on theoretical grounds by Thomas Weisskopf (1974, p. 70) that there should be no difference in defense economics between a capitalist and a socialist state. Furthermore, the relatively smaller drain on Ukraine's economy before 1917 than after the Revolution suggests that a region can better defend its own economic interest against those of the central authorities under a capitalist than under a socialist system of government.

At various times during the last one hundred years, the Moscow leadership fostered the development of the Ukrainian economy, particularly its heavy industry. Some Ukrainian regions, mostly those with conditions favorable for heavy industry, benefited from this policy, and are now among the most advanced in the USSR. There are probably other economic benefits (noneconomic advantages or disadvantages are outside the scope of this discussion) which Ukraine has enjoyed as a result of being a part of Russia/USSR. The following come to mind: economies of scale, the opportunity for migration to Asiatic territories, and the relative certainty of supply of some key products (oil, timber). Yet it seems safe to assume that the Ukrainian economy, because it could not make its own decisions in such areas as external trade, economic structure, and disposal of national income, was harmed more than helped by these benefits. Had Ukraine, regardless of economic system, been able to make these and other economic decisions with its own interests in mind, the growth rate of its economy and the welfare of its population would undoubtedly have improved.

Were Ukraine just another region in an ethnically homogeneous country, the most one could say would be that its treatment by the central government has been highly inequitable. But Ukraine is inhabited mainly by Ukrainians, a people different from ethnic Russians, the dominant nationality in Russia/USSR. Furthermore, Ukrainians did not join either Tsarist Russia or the USSR voluntarily. There is an obvious need, then, to define the economic status of Ukraine, as the country of a distinct ethnic group (nationality).

A rather general definition states that whenever there is "any relationship of effective domination or control, political or economic, direct or indirect, of one country over another" a case of imperialism exists (Cohen, 1973, pp. 15–16). Griffin and Gurley (1985, p. 1091) extended this definition as follows: "Broadly speaking, imperialism now means the domination by one country or group of people over others, in ways that benefit the former usually at the expense of the latter." Another, narrower definition helps to focus on the economic aspect of Ukraine's situation: economic imperialism

between countries exists when a transfer of national income takes place from the weaker to the stronger country under the threat of force (Boulding, pp. x-xi). Such an unequal relationship can also exist between regions inhabited by two different nationalities within a country. National income transfers from the weaker to the stronger region—which are legal though not legitimate—precisely characterize the economic relations between Ukraine as a colony and Moscow as a metropolis.

Since Ukraine has experienced an economic disadvantage relative to other regions of Russia/USSR, and in terms of national income an outright economic loss, the question is who, specifically, has gained from this situation? There is no conclusive evidence that other ethnic groups or, especially, ethnic Russians have benefited at the expense of Ukrainians. As for other aspects of social life, no single factor can explain such treatment of the Ukrainian economy. Undoubtedly, all the factors discussed above have had a certain influence on determining the Ukrainian economy's role within Russia/USSR. But in view of the importance of defense considerations both for the Tsarist Empire and for the Soviet Union, one could argue that the state's geopolitical interests have dominated regional policy decisions, including those relevant to Ukraine.

Neither the Tsarist nor the Soviet regime has been a parliamentary democracy in the Western sense. Their leaders have not been elected by popular vote, and the policies of these leaders have not represented a compromise among vested interests or the views of the population. Rather, in both regimes, policies have reflected the interests of the ruling class or ruling elite. In the Russian Empire the ruling class consisted of a hereditary landed aristocracy and military establishment, which led Lenin and his followers to call the regime military-feudal. In the USSR the power to control every phase of human life has been monopolized in the hands of the multi-ethnic leadership of the Communist Party, a regime sometimes aptly described as a partocracy. In my view, the relationship between Ukraine as an economic colony and the Moscow metropolis can be defined largely by the existence and interest of this ruling class or elite.

The government in the Tsarist Empire and the USSR, as the exponent of the ruling class or the ruling elite, has used the Ukrainian economy and extracted its resources to provide a strong defense capability for the country. Being relatively secure from external threat, this class or elite has retained power in its hands and has enjoyed considerable benefit from its position.

NOTES

1. One assumes that the index number problem applies to the other regions of the Empire and subsequently of the USSR as well as to Ukraine.

Chapter 2

Integration of Ukrainian Economy into Russia/USSR

The basis of international anarchy is man's proneness to fear and hatred. This is also the basis of economic disputes; for the love of power, which is at their root, is generally an embodiment of fear. Men desire to be in control because they are afraid that the control of others will be used unjustly to their detriment.

Bertrand Russell

Introduction

The legal and institutional relationships of independent states can be barriers to the movement of goods and resources among them. Consequently, maximum efficiency in terms of equal prices for the same goods and resources cannot be attained. These barriers are often reinforced by trade obstacles imposed by governments, such as tariffs, quotas and discrimination of various kinds. The decrease or elimination of these obstacles by a group of nations is referred to as economic integration.

There are various degrees of integration.¹ The highest degree—total economic and political integration—can take place after two or more independent countries merge, after which they are usually subject to a uniform set of laws. The economies of two or more nation-states become regional

parts of one national economy. With respect to economic institutions, merger tends to result in uniform monetary, fiscal, social, countercyclical and trade policies for all regions. Total integration can be achieved either through the voluntary surrender of political independence by nations and their subordination to the new central authority or through the absorption of one nation by another through the threat or use of force.

Integration of any degree is expected to improve the welfare of the population in the member states. Usually the following advantages are cited in support of integration: specialization of resources, economies of scale, improvement in terms of trade with other nations, increased competition among member states, and integration-induced increases in quantity and improvement in quality of resources (Robson, 1980, p. 3). There can also be disadvantages to a merging party. If a region is situated geographically on the periphery of an integrated economy, productive activities will tend to gravitate toward the country's center (cf. Giersch, 1949–50). The recent centralization tendencies of decision-making activities by national governments, arising from technological progress, defense outlays, and increasing activities of international organizations and multinational corporations, diminish the importance of individual regions in free-market economies (cf. Sampson, 1982, Chapters 11, 12). Of course, Soviet-type economies are synonymous with the centralization of economic decision-making. In the USSR, this tendency is closely associated with the pressure to locate industries deep within the country for defense reasons (cf. Koropecykj, 1970). Regional policies of an integrated economy can also be important. If the emphasis is on output maximization for the entire country, low productivity and usually less developed regions will suffer. If, however, the policy objective is the interregional equalization of a economic development, the less developed regions will benefit (cf. Koropecykj, 1973). Finally, problems associated with the interregional distribution of gains arising from integration have to be resolved (Robson, 1980, p. 58). Whether a country gains or loses on balance as a result of its integration with other countries can be answered definitively through empirical investigations.

A clarification of the relationship between "economic integration," "economic relations," and "trade" is now in order. Theoretically, "the idea of complete integration implies the *actual* utilization of all *potential* opportunities of efficient division of labour" (Machlup, 1976, p. 65, his italics). Obviously, complete integration of two or more nations cannot be achieved unless they surrender or lose their political independence; their different legal and institutional frameworks will otherwise continue to be an obstacle to the optimal allocation of resources. However, even in a politically unified country, with uniform laws and institutions, a complete integration may not necessarily be attained because of imperfect knowledge of markets for goods and resources (e.g., Cooper, 1976, p. 42). The absence of complete integration will

be reflected in regionally unequal prices for the same goods and factors of production after allowing for transportation costs. The same consideration applies to planned economies. The economies of individual regions in a politically unified country with a centrally planned economy may remain less than completely integrated. The reason may be inadequate national economic plans arising from imperfect information.²

Integration is a dynamic process. It signifies a movement from the existing economic relations among regions toward the complete integration of their economies. Movement away from complete integration is also possible. In a free-market economy, the integration process can be traced through changes in spatial price equalization. This approach cannot be applied to a centrally planned economy, where most prices are determined uniformly for the entire economy by planners and do not change simultaneously with changes in supply and demand conditions.³ The integration process in a planned economy can best be traced on the basis of changes in the intensity of economic relations among constituent regions. The economic relations among regions, in turn, can be represented by the volume of trade and the flow of labour and capital among them. An increase in trade volume and resource flow over a certain period of time will indicate an increase in interregional relations and thus in economic integration.

Ukraine was politically integrated into the Russian Empire by the middle of the 18th century. All laws of the Moscow government have since been applied to Ukraine (with the exception of a few years during both World Wars), including the absence of any legal obstacles to its trade with and resource movements to and from the Empire's other regions. But was the Ukrainian economy completely integrated with the rest of the Empire's economy? If not, has there been a movement toward its complete integration? How did the political integration of Ukraine into Russia/USSR influence the geographical distribution and commodity structure of its external trade? And, finally, were these developments in Ukrainian external trade determined mainly by purely economic or by political considerations? The purpose of the present chapter is to investigate these problems.⁴

The problems enumerated deal with the relationship between integration and the economic sector producing goods and conventional services (referred to in market economies as a private sector). Before addressing them, it is of interest to analyze the relationship between integration and the supply of public goods in the case of Ukraine.

Integration and Public Goods

Economic integration of any kind by a group of nations, because of more efficient allocation of resources than in a single country, is expected to increase the supply of private goods.⁵ For the reasons enumerated earlier, efficiency

will rise with an increase in the integrated area; the more countries involved the better. From this point of view, economic integration on a world-wide basis would be most desirable.

If such a degree of integration has not yet been achieved, the answer should be sought in the dual responsibility of an individual national economy. The national economy has not only to supply private goods but to serve as a basis for the functioning of the government. The latter includes the supply of public or collective goods (i.e., goods that any member of a society can consume without thereby depriving other members of their consumption of these goods), the stabilization of the level and growth of income, redistribution of income, and the provision of a regulatory framework. Like private goods, public goods can be, but are not always, more efficiently produced for a larger market than for a smaller one. These advantages can be grouped under the following headings: economies of scale (e.g., scientific research or national defense), external effects (e.g., malaria control or downstream water pollution), economic stabilization (e.g., protection from outside macroeconomic disturbances) (Cooper, 1976, pp. 44-49).

Among public goods can be included government activities that may appeal to the feelings of nationalism of the population of a given country. Such activities deserve our attention in the present context. Nationalistic government activities can be classified in the following ways:

1. The government may produce or facilitate the production by private individuals of goods or services allowing expression of the national culture. These activities are important for the emotional cohesion of a nation and for its viability in the long run.
2. The government may attempt to change the economic structure (e.g., through industrialization) or to provide prestigious goods or services (e.g., national airlines). For these purposes it will usually utilize such instruments as taxes, subsidies, tariffs and quotas.
3. Finally, the government may want to change the international or interethnic distribution of ownership of wealth in a given territory (Brenton, 1964, p. 377). Ownership can be extended to include "the rights to certain kinds of jobs, since job opportunities are property in the sense of yielding a stream of income to the holder" (Johnson, 1965, p. 176). The property can be confiscated or purchased from ethnically undesirable owners. Jobs can be awarded on the basis of ethnicity or national origin rather than merit.

In case (1) the government uses a certain amount of resources, usually not significant, in response to cultural preferences of an ethnic group. In the absence of these preferences, the utilized resources would have been used for the production of private goods. In cases (2) and (3), the requirement of efficient allocation of resources, in terms of the equalization of returns and costs

at the margin, which would have been achieved through the market is overruled or modified by the government in line with its ethnic or nationalistic preferences.

In the case of planned economies, a less productive than optimal alternative may be chosen by the planners. In other words, resource productivity may be higher in less prestigious sectors in which nationality or ethnicity is not a factor. Also the members of the unfavored group may be more effective workers than those to whom jobs are given. Nevertheless, as a result of the pursuing of these nationalistic policies, the output of all goods and services may not be maximized. However, the general loss in satisfaction from consumption of tangible goods and services is compensated by the general gain in national pride or cohesion, i.e., from the intangible consumption of nationalistic public goods.

It must be stressed that this trade-off is accompanied by an important distributional effect (Brenton, 1964, pp. 380–82, Johnson, 1965, pp. 177–78). While most of the nation loses in terms of private consumption and gains in terms of public consumption, there are individuals who benefit with respect to private consumption. The assets confiscated or purchased by the government are given in perpetuity to or placed under the control of certain members of the nation (e.g., aristocracy, party members). By the same token, important and usually well paid jobs in cultural activities, government, or favored sectors of the economy are allocated to some people, usually those who are well educated, or to the members of a certain class or elite group.

As a result of different historical experiences and levels of economic development, nations, like individuals, differ in their preferences for public goods, especially nationalistic ones. An integrated or unified state, comprising a number of ethnic groups, will be faced with the problem of diversity of demand for public goods. Each ethnic group will want to have a different mix and a different level of public goods. Since the needs of one group can be attained to a higher degree only at the cost of another's satisfaction, there will be competition for resources among member groups. Political instability within the country will follow. Thus there is a contradiction: a multinationally integrated state may be efficient with respect to the production of private and public goods, but at the cost of discord among its members as to the mix and level of public goods. On the other hand, an ethnically homogeneous state may be less efficient in production of both kinds of output, but will exhibit political stability. This consideration explains the relative success of those economic integrations which comprise national or ethnic groups with similar backgrounds.⁶

It should be emphasized that identical or similar preferences for public goods, especially nationalistic public goods, by individual nationalities are not the precondition for the formation of economic integrations or complete political unifications. On the contrary, such integrations may serve as

instruments for the gradual development of homogeneous preferences for public goods by the groups included in them (Robson, 1980, p. 54). In the case of the incorporation of one country by another through the use of violence, the conquering country may attempt to impose, often with the force of law, its own national preferences (language, culture) on the defeated nation. The introduction of the uniform demand for public goods can be interpreted as an attempt by the government to create the necessary conditions, in the form of political stability, for the economic efficiency associated with a larger political entity. This behavior can also be explained as the provision of public goods by the government for the purpose of satisfying the nationalist feelings of the dominant nation.

The preceding framework should enable us to analyze the effect of Ukraine's incorporation into Russia/USSR, i.e., the highest degree of integration, on its population's welfare as derived from the consumption of public goods. Although the following discussion will not be supported by empirical evidence, we believe that our stylized remarks adequately convey the actual conditions.

The integration of Ukraine into the Russian Empire affected the members of the two nations in different ways. Let us first consider the Russians. From the sixteenth century to the First World War, Muscovy and subsequently Russia continuously expanded its power over the neighboring countries. This expansion took place at the cost to Russia of human lives and material resources. If, as it appears, the policy conducted by the Tsarist government met in general with the approval of the Russian people, then the Russians valued their national pride more highly than the lives and materials lost. With respect to tangible rewards, the beneficiaries of this policy were primarily the upper classes who in return for their contributions to the building of the Empire, were awarded prestigious and lucrative jobs as well as large land holdings and serfs in the newly conquered lands.

The national preferences of Ukrainians must have been quite different from those of Russians at the time of the incorporation, since force had to be used to subjugate Ukraine. No doubt, Russians who dominated the Empire tried to impose their own preferences on the Ukrainian population during their almost two-hundred-year rule, from the mid-18th century until the 1917 Revolution. Also, Russians reintroduced serfdom for most Ukrainians. Large areas of the most fertile land were appropriated by the Moscow government and given to supporters of the Empire. Bleak economic conditions and the almost complete lack of progress, with the notable exception in the second half of the 19th century of the Donbas, were among the disadvantages of Russian rule in Ukraine. Of course, those members of the former Cossack elite who were willing to work for the Empire were rewarded by the Tsarist government; they received land and serfs, and held important jobs. Their preferences for this treatment must have been stronger than their nationalist feelings.

It is very likely that, for reasons enumerated earlier, the supply of conventional public and private goods was more efficient in the large integrated economy of the Tsarist Empire than it would have been in an independent Ukraine. But one can assume that Ukrainians, like any other people, given an opportunity, would have been "willing to sacrifice differing amounts of income (as taxes) in the form of less efficient provision of conventional public goods" and, it may be added, of private goods "in order to purchase some given amount of liberty, or national prestige, or sense of cultural identity" (Cooper, 1976, p. 50). That such an attitude existed among Ukrainians can be seen from the fact that they attempted to build their own independent country at the first opportunity that arose after the 1917 Revolution. The four-year-long struggle for this goal was unsuccessful. By 1920, the Moscow government reimposed its rule over Ukraine, as in the 18th century, by force.

One can assume that in economic terms the implicit goal of the prerevolutionary government was an improvement in the standard of living for all citizens of the Empire.⁷ Autocracy, (Russian) nationality, and orthodoxy were the political goals. The Soviet regime substituted for the preceding economic and political objectives the goal of the construction of international socialism. In order to achieve this goal, entirely new institutions in the form of central planning and the public ownership of the means of production were introduced.

There is a great deal of evidence that the internationalist content of Soviet socialism has been subverted by the Moscow leadership.⁸ Soviet leaders continue to proclaim adherence to the principle of internationalism in terms of equality of all national groups in the USSR. In actuality, however, specific Russian preferences are determinants of government policy (e.g., obligatory use of the Russian language, emphasis on the alleged superiority of Russian culture). It remains a moot question whether the favoring of Russians reflects the true preferences of the multi-ethnic leadership or is a tactical maneuver to assure for itself the support of the most populous nationality.

The preference for public goods (the ideological commitment) in the USSR has an important effect on the allocation of resources. With respect to consumer satisfaction the following disadvantages readily come to mind. First, in contrast to other countries, a high share of total resources is not used for the production of private goods, but for the production of public goods specifically related to the professed goal of the construction of socialism (e.g., propaganda, internal security, foreign expansion, militarization). It may be argued that these preferences are merely the continuation of traditional Russian preferences. Second, the socialist system unconditionally requires a particular economic structure (e.g., industrialization) and specific social arrangement (e.g., collectivization of agriculture, public ownership of the means of production). Both have often been in conflict with purely economic

rationality. Third, the emphasis on economic growth prevents the adequate supply of consumer goods, which has a negative effect on the productivity of labour. Fourth, jobs of any importance are allocated to the members of the new elite, the Communist Party, quite often without regard to merit. Furthermore, the most important jobs sometimes go to Russians solely because of their nationality (e.g., the second secretary of the Communist Party in a union republic). Thus resources are less than optimally utilized, with a negative effect on the availability of both private and public goods to consumers.

Finally, individual regions may suffer from an additional disadvantage resulting from being part of a larger political entity. This consideration applies equally to the Tsarist Empire and to the USSR. It means that the Moscow leadership may require a sacrifice on the part of a region, settled by a national group, in order to promote a goal which is considered of importance for the entire state. Even ethnically Russian regions may be called upon to make such sacrifices (e.g., the relatively low standard of living of Non-Black-Earth regions). The sacrifices may be of temporary or of long-term duration. The transfer of resources from Ukraine for the development of Asiatic regions of the USSR is a good example of long-term sacrifice.

However, there is a group of people which enjoys substantial benefits from the system all the time. Its members occupy the most important and lucrative positions in the cultural sphere, government, and the economy and control all aspects of life without having been elected by or being accountable to the people. It has been an important characteristic of the USSR as an empire, and also of Tsarist Russia, in contrast to some other empires throughout history, that non-Russians have had no difficulty in advancing to the highest state positions. As long as they have worked for the aggrandizement of Russia/USSR, non Russians have been rewarded in the same manner as ethnic Russians (e.g., Nove, 1969, pp. 83-84).

This group in the socialist countries, including the USSR, has been analyzed by Djilas (1957). He refers to it as the "New Class" and associates it with Communist party membership in socialist countries. Recently, the membership of this elite group in the USSR has been narrowed down by the researchers to the "nomenklatura" or selected party members, who hold the most important positions and whose appointments have to be approved by the top organs of the Communist Party (e.g., Voslensky, 1984). The substantial material benefits of this group have been described by Matthews (1978, esp. chapters 1,2) and Voslensky (1984, esp. chapters 4, 5).

While Russians may be willing to make the trade-off between the lower supply of private and conventional public goods for the preferred mix of public goods associated with their nationalism, this consideration may not be universally applicable to Ukrainians. Some Ukrainians may feel dissatisfied with their inferior treatment in terms of social and political esteem.

Additionally, some may be conscious of various actions of the Moscow government specifically directed against Ukraine, e.g., the 1932–33 famine, Stalin's terror, mass deportations during collectivization and after World War II and, more recently, the slow economic development of Ukraine relative to other Soviet republics. Nevertheless, some Ukrainians may derive satisfaction from being members of the USSR with its considerable military and technological achievements. Finally, a not inconsiderable number of Ukrainian party members enjoy substantial benefits from important jobs and sharing of power, no less than their Russian counterparts.

The Change in the Degree of Integration

The preceding discussion has shown that, following the incorporation of Ukraine into Russia and subsequently the USSR, the Moscow government has supplied a volume and mix of public goods that most likely have not allowed Ukrainians to maximize their utility. What effect has this integration had on Ukraine's relations with the rest of Russia/USSR and other countries of the world, namely foreign trade? External trade (including trade both with other countries of the world and other regions of Russia/USSR), in turn, considerably affected the supply of private goods in Ukraine, the main component of the population's welfare. The discussion of another aspect of economic relations, the flow of labour and capital across Ukrainian borders, is outside the scope of the present chapter.⁹ The determination of the degree of integration, as shown by external trade, will be undertaken first.

Integration, being a dynamic process, should be studied on the basis of statistical data for a number of years. The indicator most often used for this purpose is the spatial price equalization for goods and factors. As noted above, this indicator is inapplicable to the Soviet economy, and thus no comparison can be made between the present and prerevolutionary periods. The volume of Ukrainian external trade, showing the intensity of economic relations between Ukraine and the rest of Russia/USSR, will be used instead as an indicator of the degree of integration. Furthermore, because of the scarcity of statistical data, our analysis will be of the comparative statics type.¹⁰ For the most part, it will be limited to the comparison of data for two years only: one just preceding World War I and another for the most recent period. For the prerevolutionary period, the data refer to Ukraine under Tsarist rule only. For the Soviet period, the most recent data available are for the early 1970s. We have to make a probable assumption that no radical changes in Ukrainian external trade took place during the last decade that could invalidate our conclusions. For both periods, the data include only commodity trade. Despite all these limitations, it is hoped that a meaningful conclusion can be reached on the basis of the available statistics.

TABLE 2.1 External Trade of Ukraine, 1909–11, 1913

Researcher (Year)	Exports	Imports	Balance	Balance to Exports (percent)
	(millions of current rubles)			(percent)
1. Kryvchenko (1909–11)				
Total (annual average)	794.8	471.7	323.1	40.7
Empire's Other Regions	426.2	365.5	60.7	14.2
Other Countries	368.6	106.2	262.4	71.2
2. Feshchenko-Chopivsky (1909–11)				
Total (annual average)	673.1	484.5	188.6	28.0
3. Ostapenko (1913)				
Total	1022.8	648.0	374.8	36.6
Empire's Other Regions	551.8	291.3	260.5	47.2
Other Countries	471.0	356.7	114.3	24.3
4. Koporsky (1913)				
Total	744.7	331.3	413.4	55.5
Other Countries	176.8	n.a.	n.a.	n.a.
5. Popov (1913)				
Total	1007	593	414	41.4
Empire's Other Regions	669	518	151	22.6
Other Countries	338	75	263	77.8
6. Revzin and Shrah (1913)				
Empire's Other Regions	519.1	354.7	164.4	31.7
7. Halytsky (1913)				
Total	788.9	260.8	528.1	66.9
Empire's Other Regions	375.8	237.3	138.5	36.9
Other Countries	434.9	45.4	389.5	89.6

SOURCE:

1. G. Krivchenko, "Vneshniaia trgovlia Ukrainy," in *Prospekt do Kyivskoho Kontraktovoho Iarmarku* (Kiev, 1923), quoted in Shrah, 1924, pp. 114–16; TsSU, 1926, p. 110 (for trade

- with other countries only); Kobersky, 1933, p. 121.
2. Feshchenko-Chopivsky, 1922, p. 121.
 3. Ostapenko, 1924, pp. 206-207.
 4. A. A. Koporsky, *Torgovyĭ balans Ukrainy* (n.p., n.d.), for the total trade, quoted by Kobersky, 1933, p. 15; Koporsky, 1922; p. 127, for export to other countries only.
 5. Popov, 1926, pp. 61-63. Popov uses Koporsky's data, but adjusts them upwards for assumed underreporting.
 6. Revzin and Shrah, 1924, p. 7. The authors state that their estimates are based on the work by Koporsky, *Torgovyĭ balans Ukrainy*.
 7. M.I. Halytsky in *Zbirnyk Komisii elektryfikatsii* (n.p., n.d.), quoted by Baransky, 1927, p. 155; Glovinsky, 1931, p. 11. Halytsky's figure for Ukrainian imports from other countries of the world is low, because he excludes the commodities intended for Ukraine but unloaded in the Black and Baltic Sea ports and those transported by the Moscow-Kiev railroad.

Statistics on the external trade of Ukraine under Tsarist rule are assembled in Table 2.1. Information was available only for an annual average of the years 1909-11 and for the year 1913. As can be seen, the data for each of these two periods differ among individual researchers. The reasons for these differences cannot be fully explained, since the compilers of the data failed to provide a clear description of their methodology and sources. Nevertheless, two reasons can be suggested.

1. The main source of differences between individual estimates seems to be the lack of a uniform definition of the Ukrainian territory. Most of the authors analyze the Ukrainian economy within the borders of either the nine Tsarist gubernias which comprised the bulk of the Ukrainian ethnic lands, or interwar Ukrainian SSR, the territories of which did not differ much. An exception is Ostapenko (Line 3), who uses ethnic boundaries of Ukraine under Tsarist rule, which include a larger territory than the preceding two concepts. By the same token, the territory of the Empire is variously defined; some researchers include Poland, the Baltic region, Western Volhynia and Bessarabia, while others confine themselves to the interwar USSR.
2. Since the data in the table were constructed on the basis of railroad freight and ship-loading information, it was often difficult to distinguish between actual Ukrainian trade and commodities in transit on Ukrainian territory. Arbitrary decisions of individual authors affected their results.

Consequently, individual data in our table should be treated with the utmost caution. We list all of them simply to show that regardless of the compilation method and sources utilized, Ukraine's balance of trade was active in trade with other regions of the Empire as well as with other countries of the world. We shall return to the importance of Ukraine's trade surplus in the next chapter.

For the purpose of determining the extent of Ukrainian external relations, we shall use the export/national income ratio. We will calculate the ratio from the data prepared by Kryvchenko for the average of the years 1909–11 (Line 1), which are generally considered to be the most reliable for the prerevolutionary period.¹¹ The years 1909–11 were most likely representative of the period, while the disturbances from the approaching war were already felt in foreign trade in 1913. Kryvchenko's estimates refer to Ukraine within the boundaries of the nine gubernias and to the entire Empire, including all its prerevolutionary possessions with the exception of Finland (Shrah, 1924, p. 116). Relating Kryvchenko's estimate of Ukraine's total export to our Net Material Product (NMP) estimate for the nine gubernias, 3,393 million rubles in 1913 (Table A.2; no such estimate is available for 1909–11), the ratio of 23.4 percent is obtained.

An objection can be raised to the approach by which the ratio was derived—by using two different periods, particularly in view of the output growth of some heavy industry branches after 1910 (Kononenko, 1958, pp. 138, 141–42). Thus there probably was an increase in NMP between 1909–11 and 1913 which would bias our ratio downward. But since there are no consistent estimates available, we have to assume that this bias would not invalidate our conclusions.

Turning our attention to the present period, no official value data are available for the overall external trade of the Ukrainian SSR. In the West, Gillula derived estimates of exports and imports in his work on the Ukrainian input-output tables for 1966 and 1972. In the former year the commodity exports amounted to 13,400 million rubles and represented 34.4 percent of Ukraine's NMP of 38,910 million rubles. The corresponding estimates for 1972 amounted to 21,300 and 56,500 million rubles, and the ratio to 37.7 percent (Gillula, 1983, Appendix D, pp. 116, 177).

In comparison with other Soviet republics, Ukraine's export/national income ratio in 1966, for example, was the third lowest, following the Russian SFSR and Kazakhstan (Gillula, 1982, pp. 95–96, Table D-1, D-2).¹² In general, each union republic's ratio relates inversely to the size of its national income.¹³ Relative to other countries, Ukraine's export/NMP ratio is high. For example, for Italy and France, with populations comparable to that of Ukraine, the export/GNP ratio was 11.9 and 10.6 percent, respectively, in 1969. The ratios would be slightly higher if the concept of NMP were substituted for GNP. For Poland and Yugoslavia, for which NMP estimates are calculated, the respective ratios in this year were 18.0 and 22.3 percent (Mitchell, 1975, pp. 498–500, 792–95). The reason for Ukraine's relatively high ratio is its political status.

Assuming that the export/national income ratio is a reliable indicator of the extent of economic relations between Ukraine and the rest of Russia/USSR, there is no doubt that these relations intensified considerably under the Soviet

regime. In evaluating the increase in the ratio, one should keep the following qualifications in mind. The political entities underlying the ratio before World War I and at the present time are different. It is difficult to speculate about the influence of the incorporation of Western Ukraine on the ratios in 1966 or 1972. Furthermore, the ratios for the latter two years may have been inflated by deficiencies in Soviet transportation planning. Complaints about cross-hauls and unnecessary long-distance hauls have long been a feature of economic literature in the USSR. Shortcomings in transportation planning have been particularly well documented with respect to Ukraine (cf. Voloboi and Popovkin, 1972, pp. 174 ff.).

Geographical Distribution

Analyzing the distribution of Ukrainian trade among other regions of the Tsarist Empire and other countries of the world, one must be even more cautious than in analyzing aggregate trade data. In deriving the data on geographical distribution, it was often difficult for Kryvchenko, on whose data we are relying, and for other researchers to determine the country of export destination, particularly when the exports were shipped first to other regions of the Empire. It was equally difficult to determine the country in which imports originated, when they arrived in Ukraine from other parts of the Empire. In any case, according to Kryvchenko's data in Table 2.1, 54 percent of Ukrainian exports remained within the Empire's boundaries and 46 percent went to other countries. The respective percentages for imports were 77 and 23 percent. Ukraine earned a positive balance in trade with both the rest of the Empire and other countries. Slightly more than four-fifths of this balance originated in trade with other countries and about one-fifth with other regions of the Empire.

With respect to the geographical distribution of Ukrainian external trade in recent years, no complete official data are available. The distribution of exports can be estimated in the following way. According to various Soviet authors,¹⁴ Ukraine accounted for about 25 percent of USSR exports in recent years. Applying this percentage to the USSR total of 17,819 million rubles in 1972 (Tremel and Kostinsky, 1982, p. 38, Table 12), we obtain 4,455 million rubles. The figure represents 20.9 percent of Gillula's estimate of the total Ukrainian exports in this year.¹⁵ The balance, slightly less than 80 percent, was exported to other regions of the USSR.¹⁶ According to an estimate for 1966, the share of other countries in Ukrainian total exports amounted to 16.4 percent, and of other Soviet republics to 83.6 percent. The corresponding shares for imports were estimated at 15.1 and 84.9 percent.¹⁷

Our estimates of geographical distribution of Ukrainian exports are somewhat unsophisticated: the 1972 estimate is especially crude. Nevertheless, the increased share of the rest of the USSR in Ukrainian trade as compared

with the share of the prerevolutionary Empire's other regions does not come as a surprise. One of the main reasons for this increase is no doubt the autarkic attitude of the Soviet regime toward foreign trade.

The increase in Ukraine's export/NMP ratio from over 23 to almost 38 percent and the increase in the USSR share in its exports from 54 to about 80 percent between our two benchmark years indicate the intensification of economic relations between Ukraine and the rest of the USSR. But does the trade intensification reflect greater integration of Ukraine with all regions of the USSR? According to Holubnychy (1973/74), of crucial importance here is the spatial size of the USSR. The country is approximately 7,500 km. long and 3,500 km. wide and occupies more than one-seventh of the world's area. Soviet economists estimate that the cost of railroad transportation of goods is usually prohibitive beyond the 1,000–1,500 kilometer range.¹⁸ Thus, Ukrainian economic relations are concentrated primarily among the neighboring European regions of the Russian Federation, and to a much lesser extent with Belorussia and the Baltic republics. Relations with the Asiatic part of the RSFSR, Central Asian republics and the Transcaucasus are infrequent (Voloboi and Popovkin, 1972, pp. 171–72). The answer to our question, then, is that increased Ukrainian trade relations and thus the increased integration of Ukraine with the rest of the USSR refers only to the European part of the Soviet Union.

But is this increase in trade relations a movement toward complete integration (as defined earlier) between Ukraine and the rest of the USSR, or more precisely with its European part? To answer this question, the determinants of Soviet domestic and foreign trade must be identified. Of course, economic necessity demands a great deal of both kinds of trade. But the influence of noneconomic considerations, or political and military realities, to use Holubnychy's apt phrase (1973/74, p. 87), cannot be dismissed. Since the relationship between these determinants will be discussed in the final section of this chapter, it suffices here to suggest the following conclusion. If the previously estimated trade increase between Ukraine and the rest of the USSR refers to economically rational requirements, then it indeed represents a movement toward a greater economic integration. If, however, the increase is motivated by military and political needs of the Moscow government, which is more probable, it is of an arbitrary and thus of a transient nature. Political change can easily disrupt such relations.¹⁹

Commodity Structure

The structure of Ukrainian external trade before the Revolution was that of a typical underdeveloped country. Exports consisted of agricultural products and raw materials reflecting the fertility of the soil and the wealth of various mineral deposits in Ukraine. As Kryvchenko's data in Table 2.2 show,

TABLE 2.2 Structure of Ukrainian External Trade 1909-11 and 1972 (Percent)

Exports		Share of Foreign Countries
1909-11		
1. Metallurgy (Finished Products: 11.3, Extractive Products: 1.6)	12.9	33.4
2. Wood Products	0.6	100.0
3. Food Industry	27.8	10.1
4. Agriculture (Crops: 50.0, Livestock: 7.2)	57.2	74.3
5. Other	1.5	-
Total	100.0	46.4
1972		
1. Metallurgy (17.7, Fuels: 6.0, Power: 0.5)	24.2	n.a.
2. Wood and Paper Products	1.5	n.a.
3. Food Industry	28.5	n.a.
4. Agriculture and Forestry	2.2	n.a.
5. Other (Machine Building and Metalworking: 22.7, Chemicals: 7.4, Construction Materials: 2.4, Textiles and Apparel: 10.5, Other Industrial Branches: 0.5, Other Branches: 0.1)	43.6	n.a.
Total	100.0	20.9
Imports		Share of Foreign Countries
1909-11		
1. Fuels and Extractive Products	7.2	8.5
2. Machine-Building and Metalworking	7.5	84.6
3. Chemicals	1.6	100.0
4. Wood and Wood Products	3.6	-
5. Light Industry (Textiles: 39.0, Leather and Leather Products: 6.7, Haberdashery: 5.9)	51.6	3.4
6. Food Industry (Fish: 6.0, Spirits: 5.5, Colonial Products: 7.2)	18.7	40.3
7. Other	9.8	52.9
Total	100.0	22.5
1972		
1. Metallurgy (4.3, Fuels: 10.8, Power: 0.2)	15.3	n.a.
2. Machine-Building and Metalworking	27.4	n.a.
3. Chemicals	8.8	n.a.
4. Wood and Paper Products	7.0	n.a.
5. Textile and Apparel	26.2	n.a.

6. Food Industry	8.7	n.a.
7. Other (Construction Materials: 0.7, Other Industrial Branches: 1.1, Agriculture and Forestry: 3.9, Other Branches: 0.9)	6.6	n.a.
Total	100.0	n.a.

SOURCE: (For 1909-11) Adopted from G. Krivchenko, "Vneshniaia torgovlia Ukrainy," in *Prospekt do Kyivskoho Kontraktovoho Iarmarku* (Kiev, 1923); quoted in Kobersky, 1933, p. 14.

(For 1972-) Adopted from Gillula, 1982, Table 16.

unprocessed agricultural products, primarily grain, and processed foods, primarily sugar, accounted for 85 percent of all exports. The balance was represented by the exports of the metallurgical industry, working on the basis of Donbas coal and iron ore from the Dnieper region. On the other hand, the imports consisted mainly of manufactured goods. The most important items were textiles, leather goods and haberdashery, which accounted for more than one-half of all imports. Second in importance were specialized foods such as tropical fruits and fish. Finally, imports of machinery and some fuels, primarily oil, should be mentioned.

Concerning the distribution of the Ukrainian trade between the Empire and other countries, the bulk of agricultural products—75 percent in the case of grain—went to the latter, gaining for Ukraine the appellation of "granary of Europe." Metallurgical products and various minerals also went abroad. On the other hand, processed foods—for example, 90 percent of the sugar—were exported to other regions of the Empire. In return, Ukraine imported primarily industrial goods, such as machinery and chemicals, and tropical foods from abroad. The rest of the Empire supplied Ukraine with textiles, haberdashery, leather goods, timber and wood products, among others (Kobersky, 1933, p. 14).

We have adapted Gillula's original breakdown of Ukrainian exports and imports for 1972, as much as possible, for comparison with the 1909-11 breakdown in Table 2.2. At present, the processed foods, mainly sugar, account for the largest share in Ukrainian exports. The products of machine-building and metallurgical industries follow closely. Machinery, textiles, apparel and fuels predominate in Ukrainian imports.

Official sources do not separate value data for Ukrainian trade with other countries from that with other Soviet republics. It is stated only that in 1965 individual product groups accounted for the following shares of total Ukrainian exports to other countries (in percentages): machinery and equipment, 16; fuels, mineral raw materials and metals, 69; chemicals and fertilizers, 3; food and agricultural raw materials, 10; and others, 2 (Vovko, 1966, p. 26). As will be shown below, the export of a product group

consisting of fuels, mineral raw materials and metals is of substantial importance in analyzing Ukrainian external trade. More detailed information on their export is therefore of interest. Thus, in 1970 Ukraine accounted for the following shares in total USSR exports of the following products (in percentages): natural gas, 100; superphosphate, 99.8; iron ore, 98.1; pig iron, 80.9; coal, 78.3; ammonium sulphate, 78.1; coke, 70.9; sulphuric acid, 65.3; steel, 64.0; and manganese ore, 51.7 (Voloboi and Popovkin, 1972, p. 177). In return Ukraine imported from abroad, mostly from the Comecon members, primarily finished industrial goods, such as machinery and equipment, ships, and durable and nondurable consumer goods (Vovko, 1966, p. 27).

Ukrainian exports to other Soviet republics consisted mainly of coal, coke, iron and manganese ores, ferrous metals, chemicals and machinery, and processed and unprocessed agricultural products (Voloboi and Popovkin, 1972, pp. 171–72). Imports from other republics included: timber and oil products, machinery, products of light industry (mostly cotton textiles) and nonferrous metals (Voloboi and Popovkin, 1972, pp. 172–73).

One can conclude that the exports of present-day Ukraine in comparison with the pre-World-War-I period have not changed significantly; Ukraine continues to export chiefly the products of its soil and its mineral deposits. As for imports, Ukraine continues to depend heavily on supplies of various processed goods from other countries (machinery, equipment) and other Soviet republics (machinery, textiles) and of such primary products as oil and timber from the latter, mainly from the RSFSR.

Economic and Noneconomic Considerations

It is of interest to consider the influence of both economic and noneconomic considerations on the changes in the export/national income ratio, the geographical distribution of external trade, and the structure of imports and exports in Ukraine between the two benchmark years. It would be misleading to limit the importance of noneconomic considerations to the Soviet period. Although the economy of Tsarist Russia can no doubt be viewed as a market economy, it was probably influenced by the central government more than other economies at that time. The Moscow government employed various policy instruments to gauge the development of individual economic sectors, not the least of which was foreign trade. Policies particularly important for Ukraine and which were in force before World War I will be discussed next.

After the Crimean War disaster, the Tsarist regime sought economic modernization, primarily through the construction of a railroad network and through industrialization, primarily in order to back political goals with economic power. The attainment of economic priorities depended to a great extent on foreign investment. To obtain these funds while controlling the growing foreign debt, the balance of trade had to be favorable. In line with

the country's backwardness, various raw materials and agricultural products, mainly grains, were the mainstay of exports. During that period, especially during the tenure of Ivan Vyshnegradsky as finance minister (1897-92), important measures were introduced to stimulate the export of agricultural products: collection of taxes on agriculture immediately after the harvest, forcing the peasants to market their products rather than consuming them; reduction of railroad tariffs on grain shipments to the ports of the Black and Azov Seas; relatively low railroad tariffs on long hauls in comparison with short hauls; and subsidization of exports of certain processed foods, for example sugar (von Laue, 1969, pp. 26-27).

The volume and structure of imports were even more influenced than exports by government policies. In 1868 the government had imposed tariffs on various imported goods for both fiscal and protective purposes (Liashchenko, 1948, pp. 196 ff.). A major revision of the tariff structure took place in 1891 and remained basically unchanged until the Revolution (Sobolev, 1911, Chapter XVI). This reform raised the tariffs primarily on various industrial goods, including raw materials, semi-finished and finished goods, in order to protect newly established industries. While the tariffs accounted on the average for about one-third of the value of imported goods, in some cases they were set at such high levels that affected goods could not be imported at all (Sobolev, 1911, p. 791).

The effect of these stimulative policies on the export of agricultural products was particularly strong in Ukraine because of its geographical location and the importance of agriculture in its economic structure. As a result, grain alone accounted for over one-half of overall Ukrainian exports during the 1909-11 period (Table 2.2). More than three-quarters of this amount went to other countries, mainly to Great Britain by sea and to Germany and the Netherlands by rail. In 1913-14, of the Empire's total exports Ukraine supplied (in percentages): 66 of wheat, 64 of rye, 45 of barley, and 26 of oats (Kobersky, 1933, p. 20). These policies were not very effective, however, in the case of processed foods. Only about 10 percent of Ukraine's total exports of sugar and flour went to other countries, while the remaining 90 percent was exported to other regions of the Empire.

The tariffs had different effects on the various commodities which Ukraine imported. Consumer goods such as specialized foods and tropical fruits could be imported only from countries outside the Empire. The tariffs raised the costs to consumers and reduced the volume of these imports. Other commodities such as textiles, leather goods and haberdashery could be imported from other countries or from other regions of the Empire. High tariffs practically cut off the imports of these commodities from abroad (Table 2.2). Furthermore, high tariffs on textile raw materials and semi-finished goods prevented the establishment of textile industries in Ukraine because of the difficulty of competing under these circumstances with traditional centers

of the textile industry in the Moscow and Lodz regions. Because of these tariffs, Ukraine had to rely completely on textiles, which accounted for about two-fifths of all imports, from these two sources, while probably paying higher prices than in the case of foreign countries. On the other hand, high tariffs on iron and steel products facilitated the growth of their production in the Donbas. At the same time, the cost to the users of ferrous metals, mainly to the machine-building industry, was raised. Since only agricultural machine-building was developed to any extent in Ukraine, this industrial branch and indirectly Ukrainian agriculture, suffered from increased tariffs. Finally, higher tariffs were imposed on all machinery. Because more than four-fifths of machinery imports originated abroad, these tariffs had a negative effect on the Ukrainian economy.

While the intervention of the Tsarist government in economic life was of a sporadic nature and limited to certain sectors, the Soviet government introduced comprehensive central planning. One of the sectors to fall under total governmental control immediately after the Revolution was foreign trade. Subsequently, all aspects of economic life, including the production structure of union republics and trade between them, became subject to the decision making of central planners in Moscow. The Kiev authorities have participated in the decision making on Ukrainian external trade at various levels throughout Soviet history.²⁰ It is of interest to investigate the relationship between economic and noneconomic determinants of Ukrainian external trade in recent times. As the diversion of a part of Ukrainian external trade from other countries to the rest of the USSR, resulting from autarkic policies of the Soviet leadership, has been described above, the present discussion will concentrate on the structural problems of external trade.

From the purely economic point of view, i.e., according to the comparative advantage doctrine, the structure of Ukrainian external trade appears to be rational at the present time.²¹ The main components of Ukrainian exports to other Soviet republics and to other countries, mainly to the Comecon members, are produced at lower than average costs for the USSR (various mineral raw materials, ferrous metals, processed foods, some chemicals). A notable exception is coal, which is exported in large quantities to the European areas of the USSR and to Comecon countries, but whose production costs are above the USSR average. This export is justified by the relatively short distances between the Donbas and Lviv Basin, on the one hand, and Moscow, Leningrad or Comecon countries, on the other, which make it more efficient than supplying cheaper coal from the Eastern regions of the USSR. The raw and industrial materials demands that Ukraine was unable to satisfy internally included oil, timber and wood products, and nonferrous metals. The imports of these products, mainly from the Russian Federation, have traditionally represented the bulk of imports.

In the case of diversified products of machine-building or light industries, Ukraine enjoys cost advantages for some products, while Comecon countries and other union republics produce others more cheaply. East Germany and Czechoslovakia in particular are experienced and efficient producers of various types of machinery, equipment and means of transportation. On the other hand, thanks to its earlier start, the European RSFSR has had advantages over Ukraine in the production of various types of machinery and cotton textiles. Without going into detailed cost analysis of traded manufactured products, one can say that Ukraine's substantial intraunion and international exports and imports in machinery, equipment, durable and nondurable consumer goods seem to be determined also by cost considerations.

While the structure of Ukrainian external relations can be justified economically from the static point of view, it is vulnerable to criticism on dynamic grounds. Many Soviet Ukrainian economists freely point to such shortcomings in planning. Let us consider three problems which are mentioned most often.

First, the present commitment of Ukraine to export products of its metallurgical and extractive industries, as well as processed foods, has had a negative effect on the development of some of its regions. Because the industrial goods in question are produced primarily in the Donbas-Dnieper region and much of the needed agricultural raw materials in the southern regions, these areas of Ukraine have enjoyed the attention of planners with respect to investment allocation. But the south-western regions, accounting for more than two-fifths of Ukraine's total population, have remained inadequately developed. According to calculations by Voloboi and Popovkin (1972, p. 221, Table 50), in the late 1960s the economic development of southwestern Ukraine was 25 percent below the republican average and 40 percent below that for Donbas-Dnieper region. One symptom of this lack of attention is that a substantial share of the labour force in the southwestern regions has not been included in socialized sectors of the economy in recent years; in other words, these people have been working primarily in the private sector of agriculture (garden plots).²² However, there is a trend evident for the interblast differences in the level of economic development to decline in recent years,²³ primarily as a result of expanded investment in Western Ukraine.²⁴

Second, the need to produce exports of this kind has put pressure on the sources of nonrenewable raw materials and the water supply in Ukraine. The sources of raw materials are at present exploited more in Ukraine than in other areas of the USSR (Voloboi and Popovkin, 1972, p. 187; Popovkin, 1983, p. 14). As a result, the cost of various minerals, notably coal, is constantly rising. In order to continue to export these products, new investment is always required. Economists stress that the capital-output ratio is higher in these branches than the average for the entire industry.²⁵ For this

reason they appeal to the Comecon countries, the principal importers of these products, to participate in the required investments. It is suggested that the interested countries provide funds or equipment for the expansion of existing or for the construction of new facilities and that they be repaid with the increased output (Voloboi and Popovkin, 1972, pp. 82–86, Suprun, 1973, p. 56). It is argued further that the Comecon importers of Ukrainian raw materials and metals should pay higher prices than hitherto (Suprun, 1973, pp. 29–30, 86). The need for higher prices is justified as follows. The existing prices for the products in question are based on world prices, which reflect the scarcity conditions of non-communist countries. The demand of the Comecon countries for these products is relatively higher than on the world market because no industrialization of the Soviet type can take place without such exports from Ukraine (Voloboi and Popovkin, 1972, p. 86).

Third, there have been continual complaints among Soviet economists about the lack of balance in Ukraine's production structure and subsequently in the export structure. It is claimed that the share of agricultural products, raw materials and industrial materials has been too high and the share of finished goods, especially of machinery and light industry, too low as compared with developed countries. The unbalanced structure prevailed before the Revolution (Baransky, 1927, p. 154) and continues today (Suprun and Vovko, 1971, p. 121). In the present period, the imbalance is particularly acute between agricultural production and food processing (Popovkin, 1983, p. 15). According to these economists, such a structure implies inefficiency for the entire Ukrainian economy.

There is however nothing wrong *per se* with this structure. One can argue on theoretical grounds that if the existing product mix reflects Ukraine's comparative advantage, the welfare of its population is maximized. Ukrainian economists may have more in mind than they are willing to make public. The commodities in which Ukraine specializes are capital- and land-intensive and often depend on nonrenewable resources. What would happen if these resources were depleted and the Ukrainian economy did not provide alternative employment opportunities? Furthermore, since capital and land are publicly owned their returns do not go to the population but are retained by the state. The bulk of accumulated funds, according to prevailing practice, is not used directly for the improvement of the standard of living, but for investment or for state expenditures not directly related to the population's welfare. Moreover, a substantial share of these funds accumulated in Ukraine is transferred to other regions of the USSR.

Soviet Ukrainian economists express these general objections to the structure of Ukrainian trade, especially of exports, with respect to Ukrainian-Comecon trade only. The structure of trade between Ukraine and other Soviet republics seems to be exempt from criticism. If these economists express any objections, they concern very specific and detailed cases²⁶ and not

overall trade. However, the underlying causes of the deficiencies are the same in Ukraine's trade within the USSR as in its international trade.

In view of the available raw materials, scientific and technical base, and skilled labour in Ukraine and its advantageous economic-geographical location, Soviet Ukrainian economists propose diversification of industry, primarily the expanded development of such relatively labour-intensive branches as automobiles, instruments, computers, electrical goods, ball-bearings and radios (Popovkin, 1983, p. 17). They argue that technological progress takes place primarily within these branches, and that their growth will therefore increase the overall productivity of the Ukrainian economy. The growth of these branches will not only decrease unemployment and underemployment, but will also lessen the pressure on material resources. Finally, since these branches are not location bound, they can be constructed in the less developed regions. All these factors should contribute significantly to the population welfare. It is believed that, if developed in Ukraine, these branches will be competitive with similar, well established industries in the Comecon countries (Suprun, 1973, pp. 92-95). In fact, development along these lines was supposed to have begun during the Eleventh Five-Year Plan (1981-85), especially of energy (nuclear), lathes, instruments, and livestock sector machinery (Popovkin, 1983, p. 17).

If the present structure of Ukrainian exports and consequently of the entire Ukrainian production structure is inefficient from the dynamic point of view, the question arises why such a structure is maintained. Why are no attempts made to adjust the existing structure for future requirements? An answer may be sought in the heavy-handed rigidity of the Soviet system, a consideration applicable to all regions of the USSR. However, in the context of the economic integration of Ukraine with Russia/USSR, the answer lies more appropriately in the demand for public goods of the entire Soviet Union, as defined by the Party leadership in Moscow, or by the political interests of this leadership.

One of the main objectives of the Moscow leadership since the end of World War II has been to retain the so called "people's democracies" under its control. This objective requires close economic relations between these countries and the USSR or, bluntly, the binding of these economies to the economy of the USSR. Ukrainian exports are of crucial importance here. As Soviet-Ukrainian economists comment:

Intensive and broad utilization of fuel and raw material resources of the Soviet Union by other countries—members of CMEA [as we saw, Ukraine accounts for the bulk of the exports of these products from the USSR]—today appears one of the decisive factors in the development of the integrated economy within the CMEA region. This means that these resources will also play the leading role in deepening international socialist economic integration in the future (Suprun, 1973, p. 82).

[Or, more explicitly] satisfying these needs [of Comecon countries] to a great extent, the industry of the republic [Ukraine] facilitates integration processes, orienting relevant branches of industry of the Comecon countries toward stable linkage with the iron ore, metallurgical and coal industries of Ukraine (Suprun and Vovko, 1971, p. 84).

Studying input-output relations among the European Comecon members in the heavy industry branches, Holubnychy (1973-74) came to the same conclusion. The existing integration of the Bloc countries in heavy industry is actually with the Ukrainian and, to a lesser extent, Belorussian republics. Russia proper has little involvement. Moreover, the analysis of the demand for and supply of heavy industry products on world markets led Holubnychy to the belief that no changes in trade links between Comecon countries and Ukraine are probable in the foreseeable future.

With respect to Ukrainian trade with other regions of the USSR also, there is little probability of substantial change in structure, as can be illustrated by the following quotation:

The definition of strategies for multiannual planning in the republic [Ukraine] should be guided by the principles derived from the decisions of the 24th, 25th, and 26th CPSU Congresses and subsequent plenums of the CPSU Central Committee. They consisted, first, of a steady rise in production efficiency, intensification of production, and activation of qualitative factors in sectors determining the long-range sectoral orientation of Ukraine in the nationwide division of labour (ferrous metallurgy, heavy chemicals, heavy machine building, coal and food industries, and agriculture) and, second, in a reasonable limitation of the development of water-, energy-, and fuel-intensive sectors, whose efficiency indicators are lower than the nationwide average. The growth rates and internal structure of these sectors must be planned so as to take into account nationwide needs and the objective factors favoring their development in the Ukrainian SSR (Popovkin, 1983, p. 16).

As the author has discussed elsewhere (Koropecyk, 1970), and summarizes in Chapter 3, the most important objective of the Moscow leadership since the early 1930s has been the development of Asiatic areas of the country, primarily for geopolitical reasons. The latest expression of this goal is the construction of the Baikal-Amur Mainline and of a number of territorial industrial complexes in Siberia. Ukraine can only play a supportive role in the achievement of the geopolitical goals of the USSR. From the preceding discussion, the following conclusion can be drawn. As long as the Moscow leadership has the ambition and power to dominate the Comecon countries economically, substantial structural changes in Ukrainian trade with other countries are unlikely. Domestically, since the role of Ukraine in attaining Moscow's geopolitical goals is supportive, there is no chance for structural change in Ukrainian trade within the USSR either. Consequently, there is not

much hope for change in the structure of the Ukrainian economy as a whole, no matter how urgent its dynamic requirements.

NOTES

1. According to the well-known classification by Balassa, 1962, p. 2, the following forms of integration, from the least to the most comprehensive, can be distinguished: free-trade area, customs union, common market, economic union, and total economic integration.
2. According to Machlup, 1976, pp. 65–66, “The economically optimal relationships among all costs and prices in the completely integrated area can be determined only in a system of perfect interdependence.... All means of production have to compete for all possible uses, and all branches of production have to compete for all possibly usable means of production. In market economies this competition includes effective competition among enterprises; in comprehensively planned economies it involves competition among all conceivable alternatives in the considerations of the decision-making agencies or boards.”
3. However, the prices of some products are regionally differentiated to reflect the costs of production.
4. Development of the Ukrainian economy in general during the post-World-War-II period is discussed in Gordijew and Koropecykj, 1981.
5. There is no need to discuss the general aspects of the economies of integration here. The summary and analysis of the extensive literature on this subject is presented in Machlup, 1977. See also Machlup, 1976. We shall refer only to those topics that are directly relevant to the analysis of Ukrainian-Russia/USSR relations.
6. It may be argued that the present size of the USSR is considered optimal by the Moscow leadership. Any further expansion of the boundaries, while desirable from the standpoint of efficiency in output of both private and public goods, could conceivably be considered harmful to the stability of the state because of the heightened diversity of preferences for nationalistic public goods which would be engendered by newly incorporated nationalities. Evidence of this may be the reluctance on the part of the USSR to convert “people’s democracies” into union republics.
7. Some specialists argue that accelerated economic growth was not the goal of the 19th-century European governments, including Tsarist Russia, but the means toward the achievement of ultimate nationalist goals (e.g., Kahan, 1967b, pp. 17–18).
8. For a powerful statement of this view, particularly with respect to Ukraine, see a *samizdat* book by I. Dzyuba, 1968.
9. The omission of resource movement should not make our analysis less meaningful. Studies on the development of the European Free Trade Association and the European Economic Community have shown that integration primarily affects international trade. The impact on the movement of capital is not yet well

understood, and the impact on the movement of labour has been insignificant (cf. Waelbroeck, 1976, pp. 91–92). However, we shall analyze the transfer of capital from Ukraine in the next chapter.

10. While research on the Ukrainian economy in general is hampered by the insufficiency of statistical information, the situation is particularly difficult in the case of external trade. The reasons for this difficulty are both general and specific to Ukraine. No official data exist on the Ukraine's trade with the Empire's other regions and with other countries prior to World War I. Therefore various researchers have estimated Ukraine's external trade on the basis of freight movement on the Ukrainian railroads and of loading and unloading of commodities in the Ukrainian ports on the Black and Azov Seas. This kind of data is not available for Western Ukraine, because the railroad records were burned during World War I (Kobersky, 1933, p. 12). Even in countries with well-developed statistical services, data on interregional trade and on the trade of individual regions with other countries are less available and less reliable than data on international trade. The availability of statistical information on the external economic relations of the Ukrainian SSR changed considerably. During the 1920s, Ukraine had relative freedom in economic affairs, including international trade. There is ample information on this period. Under Stalin's rule, all economic decision-making was rigidly concentrated in Moscow. No information on Ukrainian interregional or international trade was released and it is doubtful whether it existed. The thaw of the late 1950s and 1960s brought with it some degree of freedom in economic decision-making, including in the foreign trade sector, for the Kiev authorities. There are some data for Ukrainian trade available for this period. However, since the 1970s a blackout on this important sector has again been imposed.
11. Cf. Shrah, 1924, p. 114; Kobersky, 1933, p. 14. Kryvchenko's unchanged data are also used for official purposes, to show the prerevolutionary trade of Ukraine (TsSU, 1926, p. 110).
12. In his calculation Gillula uses the concept of gross value output.
13. The correlation is not as strong for the four Central Asian republics and Kazakhstan, where exports are lower relative to national income. This is probably because of their distances from the industrial centers of the USSR as well as their economic structures.
14. These percentages were: Kazanets, 1964, p. 7, 20.4 in 1958; *ibid.*, 25.0 in 1962; Getmanets, 1965, p. 24, 23.3 in 1964; 18.2 in 1966, A.V. Agaev, "Uchastie Ukrainskoi SSR vo vneshneekonomicheskikh svyazakh SSSR s razvivaiushchimisya stranami," dissertation abstract (Kiev, 1969) quoted by Gillula, 1977, p. 218; Golubushin and Savin, 1972, p. 32, 25 in 1969 (these authors do not give the exact year for the estimate, but their entire article is based on data for 1969).
15. Our approach seems to be justified, because Trembl and Kostinsky and Gillula use the same methodology for the construction of input-output tables from which both export estimates are taken.
16. There is no comparable information available to estimate the distribution of imports in the same fashion.
17. Bandera, 1977, pp. 238–39, on the basis of data by N. G. Klimko et al., *Problemy*

- razvitiia ekonomiki sotsialisticheskikh stran Evropy* (Kiev, 1968), p. 360; A. G. Granberg, *Optimizatsiia territorialnykh proporsii narodnogo khoziaistva* (Moscow, 1973), p. 159; A. G. Granberg, ed., *Mezhotraslevye balansy v analize territorialnykh proporsii SSSR* (Novosibirsk, 1975), p. 360.
18. I. V. Dudinskii, ed., *Resursy i mezhdunarodnoe sotrudnichestvo* (Moscow, 1968), p. 274, quoted by Holubnychy, 1973–74, p. 94.
 19. Ostapenko, 1924, pp. 207–208, cites the following illustrative example of the need to be cautious with conclusions about integration on the basis of foreign trade. In 1912, Germany accounted for 36.4 percent of Tsarist Russia's total exports and for 45.4 percent of imports. But were these two economies integrated? Within two years these links were severed.
 20. The impact of the foreign trade monopoly and of central planning in the USSR on the various aspects of Ukrainian external trade was studied by Bandera, 1973, 1977, 1980.
 21. An excellent study by Voloboi and Popovkin, 1972, serves as the basis for our summary discussion. The authors first calculate coefficients of localization for a large number of industrial and agricultural products produced in Ukraine. In this way they determine the products in which Ukraine specialized within the USSR. Then they compute the ratios between the cost of production of these products in Ukraine and the USSR. The authors duly caution that their calculations may lack the necessary precision because of the existing price system in the USSR. They conclude that Ukraine's production specialization reflects its cost advantages within the USSR. Finally, Voloboi and Popovkin analyze in detail, although without quantifying it, the structure of Ukrainian exports and imports with respect to the rest of the USSR and the Comecon countries. They come to the conclusion that by and large the structure of Ukrainian external trade is rational from the standpoint of cost advantages.
 22. For example, 23.7 percent of the labour force in the Transcarpathian, 20.3 percent in Ivano-Frankivsk, and 15.8 percent in Chernivtsi oblasts (Mushketik, 1974, p. 34).
 23. Although the share of Western Ukraine (Volhynia, Transcarpathia, Ivano-Frankivsk, Lviv, Rovno, Ternopil and Chernivtsi oblasts) accounted for 18.6 percent of Ukraine's total population, for example, during the 1970 census (Narkhoz 1969, p. 16), its share in the total investment amounted to 11.4 percent during the years 1946–70 (Narkhoz Ukraine 1970, p. 350). This share grew to 12.8 percent during 1971–80 and 14.9 percent in 1981–86 (Narkhoz Ukraine 1986, p. 204). According to various reports, Western Ukraine became an important military outpost of the USSR. Thus it is likely that a considerable share of the investment there was allocated to military projects without much benefit to the population.
 24. Population weighted coefficients of variation for the level of economic development of twenty-five Ukrainian oblasts declined from 0.342 to 0.209 between 1960 and 1980. This calculation utilized indexes based on four indicators of economic development, (industrial output and employment, agricultural output, and investment), prepared by Stechenko and Liubitseva, 1984, pp. 68–74.
 25. For example, the production of one-ruble worth of products in the metallurgical and extractive industries, requires five to eight times more investment than in the

machine-building industry (Suprun, 1973, p. 81).

26. E.g., 780–800 thousand tons of ferrous metals are exported annually from Ukraine to the Asiatic regions of the RSFSR, while Ukraine imports 280–300 thousand tons of the same products from these regions (Voloboi and Popovkin, 1972, p. 175).

Chapter 3

Continuity of National Income Transfers

If one agrees with John Dickinson of Pennsylvania, who wrote in 1773 that a fool can put on his own shirt better than a wise man can do it for him, then the general argument that colonial nationalists are stupid in demanding self-government, since this flies supposedly in the face of their own obvious economic advantage, is not borne out by the facts. The sacrifice of cultural or national political values, which is normally bound up with the acceptance of foreign colonial rule, usually finds no compensating economic reward.

Karl W. Deutsch

*Those who steal from private individuals
spend their lives in stocks and chains;
those who steal from the public treasure go
dressed in gold and purple.*

Marcus Porcius Cato (The elder)

Introduction

The absence of political boundaries between Ukraine and the rest of the Tsarist Empire and subsequently the USSR, facilitated the flow of resources

between them. In general throughout history, Ukraine has not only experienced the emigration of its population, primarily consisting of individuals in their most productive years of life, but also continually lost a portion of its national income to other regions of Russia/USSR. The purpose of this chapter is to investigate the latter phenomenon over the period of about one hundred years. Evidence of income transfers is presented in the next section while possible reasons for these transfers are discussed in the following three sections.

There is a substantial difference between the market economy of the Tsarist Empire and the socialist economy of the USSR with regard to interregional transfers of national income. In the Tsarist economy, transfers of national income from one region to another could take place either through private loans or through the state budget. Since the loans granted in one region to a borrower in another region were supposed to be repaid sooner or later, there was no national income transfer in the long run. However, the interest payments on the loans involved an outflow of real wealth from the debtor region to the creditor region over some intermediate period of time. Since the available estimates of such interest payments to and from Ukraine before the Revolution are incomplete, this channel of national income flow will be excluded from the discussion.

Another channel of interregional transfers of national income before the Revolution and during the Soviet period was the state budget. Since some data on the state budget are available for both periods, our discussion will focus on budgetary relations between Ukraine and the rest of Russia/USSR. Budget receipts can exceed budget expenditures in a region during one period and fall short during another. In the former case, the surplus is transferred to other regions. However, in contrast to private loans, such a transfer during the Tsarist period did not need to be returned even in the long run. The same has been true in the Soviet Union.

The plus or minus balance in a region's budgetary relations with the rest of the country alone is insufficient to show the actual effect on the population welfare of that region. To show the burden, various adjustments on the tax payment side need to be made. The following seem to be most important for prerevolutionary Ukraine (Glovinsky, 1938, pp. 268-72): (1) The tax payers in a region were sometimes able to shift the burden of taxation to other regions. (2) There were various income flows from individual regions to the Empire's capital city. The payment of taxes in St. Petersburg on income not produced there biased its taxes upward while, in Ukraine, for example, there occurred a downward bias. (3) Some enterprises (e.g., railroads) operated in several regions. It is difficult to apportion profits of and taxes paid by such enterprises to a particular region. (4) Ukraine as a borderland probably consumed relatively more imported products than the inland regions. As a result, it paid more per capita tariffs than the inland regions. However, for

statistical purposes, the share of tariffs was allocated to Ukraine in proportion to its population.

In order to show the benefits from fiscal policy in Ukraine, actual expenditures also have to be adjusted. Adjustments need to be made in order to account primarily for the benefits derived from the expenditures of the central government applicable to the entire country; for example, expenditures for defense, foreign policy and the Imperial court are among the most important. Usually such adjustments are made for individual regions in proportion to their population. Various objections can be raised to this approach. Real defense expenditures in the border regions may have exceeded the adjustments made on the basis of population distribution. Furthermore, the expenditures of the central government for armed forces or foreign policy may not necessarily have been beneficial to the population of a region, particularly if this population was ethnically different from the dominant nationality. Such expenditures were often made (as with the Tsarist Empire for Ukraine) to maintain the existing political situation against the preferences of the majority of the region's population (Glovinsky, 1938, pp. 273-74).

In view of the political and economic arrangements, interregional transfers of national income can take place in the USSR much more easily than in the Tsarist Empire. Basically, there are three such channels available.

(1) Since a comparatively large share of the national income flows through the state budget, this channel is the most important tool in the hands of central planners for national income transfers among republics. The structure of the state budget (Gallik et al., 1968), budgetary obligations of the Ukrainian economy (Chapter 5), and the role of the budget in interrepublic transfers of national income (Gillula, 1979, pp. 622-24) have been described elsewhere. It is sufficient to note that budget receipts from enterprises and the population do not necessarily need to be spent in the same republic in which they were collected. In view of various economic and noneconomic considerations, expenditures on the economy, cultural and social measures, and administration may fall short of or may exceed the budget receipts in a republic. Also, as under the Tsarist regime, budget receipts and expenditures do not adequately show the costs and benefits of fiscal policy to the Ukrainian population in the USSR. The adjustment for factors described above is needed also for the Soviet budget and is as difficult to accomplish as it was for the Tsarist budget.

(2) Interregional transfers of national income can also take place in the USSR through the price structure. Since prices are determined by the state, prices of goods and services in which a given republic specializes and which it exports can be set at a low level by the planners in relation to the prices of goods and services that this republic imports from other republics. The result is an unequal exchange in terms of the scarcity relations.

(3) Decentralized investment in the USSR can also serve as a channel for interpublic transfers of national income. Union ministries have the right to accumulate funds other than budget allocations from associations and enterprises under their jurisdiction and to allocate these funds among republics according to ministerial preferences. In other words, an enterprise in one republic can contribute funds to its ministry in Moscow, which can then spend these funds in other republics. Two sources for such transfers have existed. First, a part of the amortization allowance generated by an association or an enterprise is collected by the union ministry and used for new construction or reconstruction. Second, a portion of the planned profits earned by an enterprise is contributed to the ministry, which can use these funds for investment in fixed and variable capital, repayment of bank credit, and the development of new technology in any part of the country. These rights of union ministries were reaffirmed by a recent decree (TsK KPSS i Sovet Ministrov SSSR, 1979, paragraphs 48 and 50). This decree adds an additional channel for such transfers (paragraph 51). Ministries have the right to accumulate funds from the profits of scientific-research and production associations and enterprises in one part of the country and to use these funds for the promotion of research and development in other parts.

The available statistics do not permit a precise estimate of the magnitude of national income transfers through the two latter channels. Even in a detailed study of national income in Ukraine in the early 1960s, the authors, who had access to unpublished information and were aware of national income transfers through the price structure, made no attempt to calculate the actual amounts for this reason (AN, 1963, Chapter 9). Therefore, the discussion in the next section focuses on budgetary transfers and on selected variants of the aggregate difference between the national income produced and the national income utilized.

Evidence of National Income Transfers

A summary of national income transfers between Ukraine and Russia/USSR, prepared by various researchers, is presented in Table 3.1. A detailed evaluation of the estimates cannot be undertaken here. A critical analysis of the underlying data base and the methodology used for each estimate would require a separate study. Therefore, our conclusions are not based on one estimate; rather, confidence is placed on the consistency of the trends among available estimates.

For the prerevolutionary period, budgetary relations between Ukraine and the rest of Tsarist Empire in terms of percentages of excesses of budget receipts over budget expenditures to budget receipts are used as indicators of national income transfers. Among the estimates of this period (upper panel of the table), those by Iasnopolsky are very thorough. They refer to the nine

TABLE 3.1 National Income Transfers Between Ukraine and Russia/USSR for Selected Years (percent)

Researcher	Period	Excess of Budgetary Receipts Over Expenditures to Receipts	Excess of Budgetary Receipts Over Expenditures or National Income Produced over National Income Utilized to National Income Produced ¹
Before Revolution			
Iasnopolsky (1897, Appendix Table 42 and Supplement to Table 44)	1868-81	31.1	n.a.
Petrovsky (1974, p. 12)	1882-91	46.2	n.a.
Porsh (1918) ²	9 years (?)	49.7	n.a.
	1898-1902	44.7	n.a.
	1903-07	45.0	n.a.
	1908-10	42.4	n.a.
Maltsiv (1917) ³	1910	43.5	n.a.
	1913	45.2	n.a.
Ukrgosplan (1925) ⁴	1913	9.8	n.a.
After Revolution			
Dobrogaev (1927) ⁵	1923/1924-1926/27	16.1-19.8	n.a.
Richytsky (1928, p. 80)	1925/26-1927/28	11.2	n.a.
Melnyk (1965, p. 90)	1928/29-1932	23.2	n.a.
Melnyk (1973, pp. 119, 121, Table 4.8)	1959-61	31.1	15.9
Melnyk (1977, p. 286, Table 10.6)	1959-70	33.6	19.9
AN (1963, pp. 151, 154)	1959-61	31.1	14.6
Bandera (1973, p. 136, Table 5.1)	1960	n.a.	16.9
Bandera (1977, pp. 238-39, Table 9.1)	1966	n.a.	20.1
Wagener (1973, p. 99, Table 3.12)	1965	n.a.	9.9
Emelianov and Kushnirsky (1974, p. 141, and various issues of Narkhoz Ukraine)	1959-69	n.a.	15.2
Granberg (1975, p. 147, Tables 11.11, 11.12) ⁶	1966	n.a.	2.7
Gillula (1979, p. 634)	1961-72	n.a.	11-14

Gillula (1983, App. D, p. 116)	1966	n.a.	3.7
Gillula, 1983, App. D, p. 117)	1972	n.a.	0.0
Schiffer (1986, Table 5.11 and App. 1)	1966	n.a.	5.7
	1975	n.a.	1.6

Notes

1. National product, according to the Eastern definition, is the sum of the net products of material production branches. In comparison with the Western concept, it excludes the net product of services and government sectors. National income utilized refers to the value of consumption and accumulation. It differs from national income produced by the surplus of Ukraine's trade with the rest of the USSR and foreign countries, in the case of Melnyk and Bandera, and by this surplus and internal losses, in the case of Emelianov and Kushnirsky, Granberg, Gillula, and Schiffer.
2. M. Porsh, *Ukraina v derzhavnim biudzheti Rossii* (Katerynoslav, 1918), cited in Richytsky, 1928, p. 80.
3. P. Maltsiv, *Ukraina v derhavnomu biudzheti Rossii* (Lubni, 1917), cited in Glovinsky, 1938, p. 284.
4. Cited in Glovinsky, 1938, p. 286.
5. Cited in Volobuiev, 1928, pp. 59-60. The lower estimate reflects the adjustment for central government expenditures for defense, etc.
6. Calculated on the basis of Granberg's per capita data by Schiffer, 1986, Appendix Table I.1. (See Chapter 2, note 17 *supra*).

Ukrainian gubernias of the Empire and show unadjusted budget receipts and disbursements. The incorporation of adjustments—for shifting of the tax and for the alternative treatment of customs tariffs distribution on the receipts side and of the extraordinary disbursements on the expenditures side—does not alter the picture of significant excess of budget receipts over budget expenditures for almost a quarter of the century.¹

The data by Petrovsky, uncertain as to the period covered as well as to definitions of other variables, are included here primarily because their author was none other than Lenin.² Porsh and Maltsiv generally followed Iasnopolsky's methodology with minor modifications (Richytsky, 1928, p. 80; Glovinsky, 1938, pp. 283-85). Porsh slightly changed the estimation of indirect tax receipts. Maltsiv included only eight Ukrainian gubernias in his calculations, excluding Tavria, because the budget expenditures there were primarily for the sea fleet, and did not benefit the local population. Maltsiv also made somewhat different estimations of railroad receipts in Ukraine than Iasnopolsky. Finally, the Ukrainian Gosplan's (Ukrogosplan) calculations apply to the interwar boundaries of the Ukrainian SSR. The expenditures include the allocation to Ukraine, proportionate to its population, of central

government expenditures for defense, foreign affairs, etc. (Glovinsky, 1938, pp. 285–86). This inclusion explains the low percentage of excess of receipts over expenditures of receipts as compared with other estimates of budgetary relations.

The percentages of excess budget receipts over budget expenditures of budget receipts in Ukraine vary, albeit slightly, for selected periods before the Revolution. Some of the variations may also be a result of the different methodologies used by individual researchers. But it is clear that Ukraine consistently paid more to the state budget than it received from it. On the average, Ukraine's share of Tsarist Russia's budget receipts was about 20 percent and of payments about 13 percent (Richytsky, 1928, p. 78). In 1913, according to Ukrogosplan estimates, the respective percentages were 18.9 and 17.5 (Glovinsky, 1938, p. 286). However, as was stated earlier, the expenditures here include central government disbursements for defense and similar purposes. In absolute terms, this surplus stayed at about 50 million rubles per annum at the end of the nineteenth century and at about 40 million at the beginning of this century (Volobuiev, 1929, I, pp. 70–71). In 1913, the surplus calculated by Ukrgosplan amounted to 63.6 million rubles.

It is now relevant to relate the excess of budget receipts over expenditures to Ukraine's national income. The estimation of national income for the nine Ukrainian gubernias is available for 1913 only (Chapter 4). The surplus, derived on the basis of Ukrogosplan data, accounts for 1.9 percent of the net material product in this year. To have some idea of this relationship for one of the earlier years, a rough estimate of Ukraine's net material product in 1900 was made.³ The previously cited estimates of the surplus of 50 and 40 million rubles represent 3.2 and 2.5 percent, respectively, of this roughly calculated national income.

Evidence concerning the excess of budget receipts over budget expenditures in prerevolutionary Ukraine should be supported by data on its external trade. Since taxes decreased aggregate demand more than budget expenditures augmented it, it is to be expected that Ukraine experienced a positive balance of trade. As the sketchy data for the years just before the outbreak of World War I indicate (Table 2.1), Ukraine showed a positive balance in trade with other regions of the Empire as well as with other countries of the world.

Estimates of national income transfers between Ukraine and other regions of the USSR are more common than those available for the prerevolutionary period (lower panel of Table 3.1). Unfortunately, for a few, primary sources are still unavailable. The importance and reliability of these studies are enhanced by the fact that basically similar results were obtained by scholars both in the USSR and in the West using a variety of methodologies.

Estimates by Dobrogaev (cited by Volobuiev), Richytsky (based on the work of the Ukrainian Gosplan), Melnyk (both periods), and V. Kuts (in AN,

1963) were prepared in the traditional manner for estimates before World War I. These estimates represent the relative excess of reported budget receipts over payments in Ukraine. The different results stem from the different periods covered, the availability of basic data to individual researchers, and adjustments made or not made for Ukraine's share in union budget expenditures not directly attributable to a specific region, for instance, defense. The estimates of budget surpluses with adjustments are relatively lower than those without. Kuts does not make adjustments, Richytsky and Melnyk do, while Dobrogaev presents both variants.

The other researchers of the post-1927 period represented in this table traced national income transfers between Ukraine and the rest of the USSR by methods other than budgetary analysis. Bandera's objective for both years was to estimate the balance of trade between Ukraine, on the one hand, and the rest of the USSR and other countries, on the other. The resulting surplus represents the financial side of the excess of commodity exports over commodity imports in Ukraine. Capital exports from Ukraine were a primary concern for Wagener. Using various assumptions, he estimated savings and investment in Ukraine and considered the excess of the former over the latter as capital outflow from Ukraine to other regions of the USSR. The purpose of Emelianov and Kushnirsky's study was to estimate the excess of national income produced over national income utilized in Ukraine between 1959 and 1969. Since the data on national income produced are complete, they had to estimate national income utilized for the few years for which such data were unavailable. Granberg estimated the ratio of national income utilized to national income produced on a per capita basis. Schiffer converted Granberg's results to the ratio of aggregate concepts. Gillula prepared two sets of estimates. The estimate for 1961-72 shows the excess of net material product produced over net material product utilized, derived on the basis of official data and adjusted with respect to differential rent. Gillula's estimates for 1966 and 1972 were derived on the basis of input-output tables constructed by him. Schiffer used the official 1966 input-output tables and Granberg's estimates for the derivation of national income produced and utilized of that year. He extended the data to 1975 using official growth rates.

A consistent trend emerges: all estimates (except Gillula's for 1972)⁴ indicate that the outflow of national income from Ukraine to other regions continued under the Soviet regime. This trend is evident in terms of the budgetary surpluses during the 1920s and the early 1930s, as well as in terms of the excesses of national income produced over national income utilized during the 1960s and 1970s, the periods for which data are available.

The evidence on the outflow of Ukraine's national income after the Revolution presented in Table 3.1 is supported by data on geographical distribution of investment in the USSR. As is shown in Table 3.2, Ukraine's share in total USSR investment was relatively low. It was consistently below its

TABLE 3.2. Shares of Ukraine, RSFSR, and Kazakhstan in the USSR Total Investment (percent)

Year	Ukraine	RSFSR	Kazakhstan
1918-28 ¹	19.0	65.9	4.2 ²
1929-41 ³	15.9	67.9	3.7
1946-50	19.3	61.2	3.9
1951-65	16.9	61.9	6.5
1966-80	15.5	60.8	6.2
1981-86	13.9	62.2	5.8

Notes

1. Without the fourth quarter of 1928.
2. For 1920-28.
3. Including the fourth quarter of 1928 and excluding the second half of 1941.

SOURCE: Various issues of Narkhoz.

population share (according to the post-World War II censuses, 20.0 percent in 1959, 19.5 percent in 1970, and 19.0 percent in 1979). The investment share fell as low as 13.6 percent in 1982. It approached the population share in Ukraine only during the years immediately following both world wars, exceptions most likely explicable by the need to reconstruct a war-devastated economy. In contrast, as Table 3.2 shows, the investment shares of the RSFSR during the entire period since the Revolution and of Kazakhstan during three recent decades were relatively high compared with their population shares (for example, 53.8 and 5.4 percent, respectively, in 1970). The increasingly smaller allocation of investment to Ukraine, of course, resulted in its continuously declining shares in the total fixed assets of the USSR (Table 4.2).

To compare the Tsarist and the Soviet regimes with respect to the level of budget and of national income withdrawals from Ukraine: in relation to budget receipts, outflow in terms of budgetary surplus was higher before the Revolution (between 40 and 50 percent) than during the 1920s (between 11 and 23 percent) or during the 1960s (slightly over 30 percent). This difference can be explained in part by a higher share of national income flowing through the state budget in the USSR: over 60 percent in recent years. In comparison, the share in capitalist Tsarist Russia estimated for 1900 was about 37 percent (Prokopovich, 1918, p. 24; Khromov, 1950, p. 527). The latter percentage has, in addition, a somewhat upward bias; Prokopovich's national income data refer only to the European part of the Empire, whereas Khromov's budget data are for the entire Empire. The share of national income transferred from Ukraine after World War II ranged between 10 and 20 percent, and even if

one accepts the lowest estimate, it is considerably higher than the rough approximation of 2 to 3 percent during the Tsarist period. The transfer of either about 2 percent or more than 10 percent of Ukraine's national income to other regions of Russia/USSR year after year during one century is probably unique in the history of international and interregional relations (cf. Wiles, 1977, p. 311).

There is an important difference between the interregional transfers of national income in Russia and the USSR and those in Western countries. Under parliamentary democracy in the West, the government has to have approval from the population or from elected representatives for such budget transfers. This has not been the case either in Tsarist Russia or in the USSR. It is very probable that if political democracy existed in multinational Russia/USSR the capital exporting nationalities would object to such a budget policy.⁵ It seems that as a rule interregional transfers of national income proceed more smoothly in ethnically homogeneous countries, regardless of political ideology (e.g., Italy or Poland), than in multi-ethnic countries (e.g., Great Britain or Yugoslavia). Furthermore, in a market economy, the transfer of funds from richer to poorer regions by individuals or private institutions requires interest payments and eventually the return of the funds to the lender. These conditions existed in the Tsarist Empire, but not in the USSR.

The continuous and unrequited transfer of national income from Ukraine to other regions of Russia/USSR has been taking place as a result of the unequal status of Ukraine vis-à-vis the Moscow government and can therefore be called a tribute (e.g., Boulding, 1972, p.xi). In the West this is usually considered to be contrary to accepted moral and ethical precepts. According to some Soviet authors, such a transfer under socialism is also contrary to Marxist philosophy.⁶ If the transfer of funds—which are of a rent-like nature in the originating region⁷—results in increased output in the receiving region, then the exporting region is entitled to the repayment of these funds. (There is no mention of the payment of interest for the use of the funds, however). These authors argue that under socialism there should be no difference, economically or legally, between the individual and the population of a region: in both instances, income should be determined by production. This principle has, in fact, been accepted in relations among socialist countries,⁸ but, obviously, not among the constituent republics of the USSR.

Economic Considerations

Budget expenditures can be distributed among individual regions for the following three basic purposes: the needs of the central government, including defense; population consumption, usually of the collective type; and investment in infrastructure and productive facilities. These expenditures, especially investment, can affect the interregional structure in two ways. First,

investment in less developed regions and the consequent increase in productivity can reduce interregional inequality of output and income per capita. Second, investment in more productive regions—which are usually the more developed—can maximize the output for the entire country. Assuming given population mobility, the latter alternative would lead to an increased inequality of income per capita among regions. In Western countries experience has shown that in the course of economic development, a tendency toward a widening of interregional inequality is at first evident. Only after a certain level of income per capita is reached nationally can a movement toward a reduction of this inequality be discerned (Williamson, 1965). In capitalistic economies this equalization process proceeds in response to market forces, although governmental intervention can, and often does, play an important role.

In the relationship between budgetary transfers from Ukraine and the equalization trend in Russia/USSR, the following qualifications should be kept in mind. Ukraine's budgetary losses before the Revolution were not large enough so that if used for investment in other regions, pronounced changes in the Empire's regional structure would not have occurred. Moreover, it is very likely "that only a minute part of its [the Russian government's] budget expenditures went directly for purposes of developing the industrial sector" (Kahan, 1967a, p. 466). The bulk of Ukrainian budgetary funds, as will be discussed below, must have been used for other purposes. The share of Ukraine's national income transferred to other regions of the USSR, as noted, was both absolutely and relatively larger than before the Revolution. Still, these funds by themselves were most likely not a decisive factor in the changes in the interregional distribution of productive facilities, particularly since Soviet leaders spent only a part of their budget for this purpose, although a larger portion than that spent by their prerevolutionary predecessors. Thus no direct, and certainly no pronounced, relationship between the budgetary losses of Ukraine and the equalization trend in Russia/USSR can be expected. Nevertheless, this trend deserves our attention because its fluctuations imply changes in the utilization of at least a part of Ukrainian budgetary funds.

Let us now consider whether there was a tendency toward lessening interregional inequality first in Tsarist Russia and then in the USSR. The movement toward less geographical concentration of industry can already be detected during the half-century preceding World War I (Spechler, 1980, pp. 410–11, Table 1). The trend resulted mainly from the relative decline of the Central Industrial Region around Moscow and of the St. Petersburg-Baltic Region in the country's total output. The principal beneficiaries of this development were Ukraine and, to a lesser extent, the Transcaucasus and other border provinces of the Empire. Thus, in spite of the budgetary losses, Ukraine experienced an above-average growth of its industry. Consequently,

the level of Ukraine's economic development was close to the average for the Empire during the turn of the century.

For social and political reasons, the Soviet leadership's commitment to interregional economic equalization, primarily industrial equalization, has been explicit and more important than that of the Tsarist government (Koropec'kyj, 1970, pp. 236–37).⁹ Because of the centrally planned economy and the public ownership of the means of production, the Soviet government's ability to achieve this goal was much greater than that of the Tsarist government. Indeed, an equalization trend, as evidenced by the decrease in the population-weighted coefficient of variation for some variables, can be observed during the interwar years for the eleven union republics that then constituted the USSR.¹⁰ The coefficient for urbanization—a variable assumed to be a good indicator of economic modernization—decreased from 0.148 to 0.112 between the censuses of 1926 and 1939. However, there is little change in the coefficient for gross industrial output in the years for which comparable data are available: it decreased from 0.269 to 0.259 between 1932 and 1937 (TsUNKhU, 1939, pp. 8,9,144).¹¹ Because of the rapid industrialization during the preceding Five-Year Plan, 1928–32, the relative decrease in this indicator for the same period would probably be comparable to that for urbanization.

The population weighted coefficients of variation for urbanization, gross industrial output, and for net material product in per capita terms during the last quarter of the century are shown in Table 3.3. These indicators span the period from 1913 to 1986, and the underlying data refer to the comparable political units, the present-day fifteen union republics. The coefficients are low by world standards. Their further decrease between 1913 and 1940 confirms the previous finding of a reduction in inequality during the interwar period. The comparable data for the 1940s and 1950s are unavailable. Because of the shift of economic activity from the European to the Asiatic regions during the war, one can safely assume that this trend continued during these two decades. After 1960, a change in the direction of this trend can be observed, particularly in such a comprehensive indicator as net material product.

Inequality widened especially between the northwestern belt (RSFSR, Belorussia, Ukraine, Moldavia and the Baltic republics) on the one hand, and the southeastern belt (three Transcaucasian and five Central Asian republics), on the other. The net material product per capita of the latter republics decreased in relation to the former from 86.7 to 54.0 percent between 1960 and 1986 (sources to Table 3.3). Part of this decline must be attributed to rapid population growth in the Transcaucasus and Central Asia. The same increase toward inequality has been found in a thorough study of the interrepublic distribution of personal and collective income of state employees and of members of collective farms between 1960 and 1970 (McAuley, 1979, pp. 111–13, 130, 140–41).¹²

TABLE 3.3. Population Weighted Coefficients of Variation for Urbanization, Net Material Product, and Gross Industrial Output in Per Capita Terms for Union Republics for Selected Years

Year	Urbanization	Net Material Product	Gross Industrial Output
1913	0.213	n.a.	0.261
1940	0.137	n.a.	0.216
1960	0.146	0.111	0.215
1970	0.147	0.166	0.244
1986	0.162	0.209	0.286

SOURCE: Urbanization: Various issues of Narkhoz.

Net Material Product: Absolute data for 1970 from Narkhoz Latvia 1971, p. 51, and various issues of Narkhoz.

Gross Industrial Output: Absolute data for 1960 and 1970 from Gillula, 1978, p. 153, and various issues of Narkhoz.

n.a. - not available.

One can assume, then, that during the interwar period and immediately after World War II, Ukrainian funds helped to an unspecified degree to develop the less developed republics. In view of the fact that the equalization trend reversed itself during the 1960s and 1970s but the transfer of a portion of Ukrainian national income continued, the question arises whether the bulk of these funds was used for investment in regions which were relatively more developed but in which productivity was growing faster than in Ukraine. Such allocation, consistent with the efficiency principle, would have resulted in the maximization of output for the entire country within some intermediate time period.

The efficiency of geographical distribution of investment will not be analyzed for the prerevolutionary period because the Tsarist government was only marginally involved in investment in productive facilities; in any case, the necessary data are not available. However, one can investigate whether the productivity of capital, or of combined capital and labour, was growing at a faster rate in other republics than in Ukraine during various periods of Soviet rule.

Selected measures of growth in productivity in industry and agriculture are presented in Table 3.4. Except for the first two estimates of the productivity of capital, shown by the incremental capital-output ratio and the marginal productivity of capital, all other estimates are intended to show total factor productivity. These indicators have been derived either by dividing the rates of output growth by the growth rates of combined resources or by subtracting the latter from the former. Capital and labour coefficients have been obtained

TABLE 3.4. Growth of Total Factor Productivity in Ukraine Relative to the USSR and Some Republics for Selected Periods (percent)

Researcher	Period	Region	Industry	Agriculture
Koropecykj (1971, p.35, Table 3.1) ¹	1928-37	Ukraine	83.3	n.a.
		USSR	100.0	n.a.
Holubnychy (1968, p.91, Table XII) ²	1933-41	Ukraine	2.47	n.a.
		RSFSR	2.40	n.a.
		Kazakhstan	1.49	n.a.
	1954-62	Ukraine	0.92	n.a.
		RSFSR	0.78	n.a.
		Kazakhstan	0.70	n.a.
Koropecykj (1970, p.261, Table 9)	1958-65	Ukraine	3.33	n.a.
		RSFSR ³	2.20	n.a.
		Kazakhstan	3.00	n.a.
Whitehouse (1973, p.157, Table 6.1)	1961-70	Ukraine	2.4	n.a.
		RSFSR	2.4	n.a.
		Kazakhstan	1.4	n.a.
Cohn (1977, p.74, Table 3.5)	1960-65	Ukraine	2.8	1.6
		USSR	1.3	-0.1
	1965-74	Ukraine	3.1	-0.6
		USSR	3.3	-1.0
Bond (1979, p.163, Table 6.1) ⁴	1960-75	Ukraine	4.5	-0.9
		RSFSR	5.2	-1.9
		Kazakhstan	4.3	-1.5
Koropecykj (1981, p.109, Table 3.5) ⁵	1960-65	Ukraine	3.5	1.1
		RSFSR	2.3	0.9
		Kazakhstan	-3.1	-3.0
	1965-70	Ukraine	4.6	0.2
		RSFSR	5.3	2.9
		Kazakhstan	4.5	13.0
	1970-75	Ukraine	2.8	-3.4
		RSFSR	4.4	-6.9
		Kazakhstan	5.0	-3.2
	1975-80 ⁶	Ukraine	0.7	-1.9
		RSFSR	0.9	-0.8
		Kazakhstan	0.9	1.0

Notes

1. Incremental capital-output ratio.
2. Marginal capital productivity.
3. 1959-65.
4. Calculated on the basis of index numbers.
5. Calculated on the basis of data underlying this table.
6. Underlying data estimated by Kushnirsky, 1983, Table C-1, C-3, C-5, C-9, C-11, C-13. Calculated by the use of the same weights as for 1960-75.
n.a. - not available.

by the use of some version of the Cobb-Douglas production function. Comparisons were made between Ukraine, the RSFSR and Kazakhstan. The latter two republics were included because of their relatively heavy investment activity, primarily in the Asiatic RSFSR and Northern Kazakhstan. In cases where data for these two republics were unavailable, a comparison was made between Ukraine and the USSR as a whole.

According to the table, the growth of capital productivity in industry during the interwar period in Ukraine was higher than the all-Union average. The total factor productivity growth after World War II was also higher in Ukraine than the RSFSR until the mid-1960s according to Cohn and my estimates and equal to the RSFSR according to Whitehouse's data. Since the second half of the 1960s Ukraine has lagged behind the USSR and the RSFSR in this respect. In comparison with Kazakhstan, productivity growth in Ukrainian industry was higher for most of the postwar period. In view of the considerable variation in the growth of agricultural productivity, no consistent trend can be discerned among the republics analyzed. It is true that in contrast to productivity growth, the static productivity of resources in various extractive industries, resulting from favorable mineralogical conditions, might often have been higher in the Asiatic regions of the RSFSR¹³ and in other Eastern republics rather than in Ukraine. But in the foreseeable future the harsh climate of these regions requiring enormous infrastructure investment and long distances to population centers in the west of the country will most likely continue to outweigh their advantageous natural conditions in terms of cost per unit of output to consumers.

Because resource productivity grows in different economic sectors and industrial branches at different rates, structural changes can influence the overall productivity of a national or regional economy. In the above comparisons, analysis of such changes cannot be included because of lack of data, but inclusion of such an analysis would probably not invalidate the results in Table 3.4. The economies of Ukraine and the RSFSR, and to a lesser extent of Kazakhstan, are large enough and sufficiently diversified so that, in the context of Soviet planning, structural changes usually do not take place in one

republic without taking place in another.

On the basis of Table 3.4, one can certainly question the validity of the efficiency argument for the transfer of Ukrainian funds to other Soviet regions for investment throughout the period under discussion. The recent deterioration of Ukraine with respect to productivity growth, especially in industry, relative to the RSFSR, is probably a result largely of the investment policy of the Moscow planners. Because Moscow consistently allocated investment to Ukraine which was relatively small to its share in the total population and in the economic potential of the USSR, the Ukrainian economy was less able to utilize its labour and natural resources most efficiently, to introduce advanced technology, and had less opportunity to adjust its economic structure to new technological requirements.¹⁴

The fate of Ukraine in the past and at the present is analogous to that of underdeveloped nations, as seen by the radical economists in the West:

The central problem of underdevelopment...was that during the era of imperialism a high proportion of the economic surplus potentially available for domestic investment was transferred abroad in the form of uncompensated exports or was used locally to pay for the cost of colonial administration, the maintenance of large standing armies and police forces, and the high standard luxury consumption of the expatriate ruling class. Some of these wasteful expenditures continued in the post-independence, neocolonial regimes (Griffin and Gurley, 1985, p. 1109).

Nationality Considerations

In view of the fact that the two economic considerations of equalization and efficiency do not provide a convincing explanation for the outflow of Ukraine's national income to other regions of Russia/USSR, let us consider the nationality hypothesis that has been advanced for the pre- as well as post-1917 period. It maintains that Ukraine was discriminated against by the Tsarist government in favor of Russia proper (Ostapenko, 1924; Volobuiev, 1928; Richytsky, 1928; Kononenko, 1958). Since the Revolution, it is argued, the central authorities of the USSR in Moscow have been dominated by ethnic Russians who have discriminated economically against non-Russian republics in favor of the Russian republic (Holubnychy, 1968, pp. 55-57, 76-86, 90-93).

For the pre-1917 period, it has to be kept in mind that the Tsarist Empire had a market economy. Economic decisions were made by private entrepreneurs in response to the profit motive. If a region offered good opportunities for making profits, businessmen, domestic or foreign, would exploit the situation and the region would experience economic growth. The government could facilitate or obstruct these decisions to a degree, for example, by granting or refusing to grant corporation charters, subsidies or

production orders (Liashchenko, 1948, pp. 232–33). The most important government aid for a region's development was the construction of the necessary infrastructure, primarily railroads. On rare occasions the government invested directly in productive facilities.

According to the authors cited, various obstacles were put in the way of Ukraine's industrial development. But it seems that opportunities for profit must have remained strong, primarily in the heavy industry of the Donbas and some food processing branches, because Ukraine attracted a considerable share of the Empire's total investment. For example, Ukraine's share of the total foreign investment in the Empire's industry (without Finland) has been estimated at 36 percent in the 1913 year (AN, 1949, p. 12), within changed boundaries. As a result, the growth of Ukrainian industry during the half-century preceding the Revolution was remarkable. Between 1854 and 1908 Ukraine's share in the total industrial output of the Tsarist Empire (without Finland) increased from 7.1 to 18.4 percent. If compared only to the European part of the Empire (excluding Poland and Lithuania), the share of output increased from 9.4 to 22.0 percent. It rose from 11.9 to 19.3 percent within the interwar borders of the USSR during the same period of time (Spechler, 1980, pp. 410–11, citing Soviet sources). This record would suggest that market forces proved to be quite strong in comparison with any obstacles Moscow may have put in the way of Ukraine's economic development.

Regardless of the development rate of Ukraine's economy, the Tsarist government, as we saw, taxed Ukraine more than it spent there through the state budget. Since this difference can be relatively easily quantified, it has often been cited as proof of Moscow's discriminatory policy against Ukraine. The question that needs to be asked is whether this policy benefited ethnic Russians. The answer, at least for the last third of the nineteenth century, is suggested by Iasnopolsky's study (1897, pp. 439 ff.) of the regional distribution of budget receipts and expenditures.

This study analyzed in detail which provinces were beneficiaries and which bore the burden of the tax policy. It concluded that the principal beneficiary was St. Petersburg province, where the state capital was located at that time. The bulk of budget expenditures there went toward activities associated with the administration of the entire Empire (e.g., the Tsar's court, the ministries, the military, etc.), as well as for interest payments on the state's domestic and foreign loans, incurred in part for the construction of the railroad network throughout the country. Thus all the provinces were the indirect beneficiaries of the state expenditures in St. Petersburg. Direct beneficiaries were the border provinces, primarily those situated in the northwest of the country, which were inhabited by Finns, Estonians, Latvians, Lithuanians and Poles. Non-Russians also inhabited other border provinces; for example, various Caucasian nationalities lived in the Transcaucasus and various Moslem

nationalities lived in Central Asia. However, an unspecified share of budget expenditures in these border regions was defense-oriented; the population derived little benefit from them. The direct losers were for the most part the interior provinces of the country, inhabited predominantly by ethnic Russians as well as by Ukrainians and numerous smaller nationalities.¹⁵

That ethnic Russians were not favored by the budgetary policy can also be seen from the following evidence. According to an account by the then finance minister Sergei Witte (1903, p. 218), the tax burden was most severe in the fifteen Central Black Soil and Central Industrial provinces of the Empire's European part: for example, in 1896 budget receipts exceeded expenditures there by 3.50 rubles per capita. These provinces were also among the poorest (Spechler, 1980, p. 314). Only one of them was inhabited by Ukrainians and one by Belorussians, while the others represented the heart of ethnic Russia. By comparison, the excess of per capita budget expenditures over receipts amounted to one ruble in non-Russian Central Asia and 70 kopecks in the Transcaucasus for that year.

The Tsarist government considered Ukraine and other non-Russian ethnic lands inseparable parts of a politically and economically integrated state. Members of these nationalities could attain the highest government positions as long as they faithfully served the Empire's interests. Finally, the bulk of landowners, businessmen and investors in Ukraine were non-Ukrainians.¹⁶ Since these feudal magnates and newly rich capitalists controlled a substantial portion of Ukraine's economy, any economic policy, including the budgetary policy, directed against Ukraine in particular would have been more harmful to them than to the impoverished Ukrainian peasants. No matter how autocratic it may have been, the Tsarist regime could ill afford to base its policies simply on a bias against Ukraine which, at the same time, would have been discriminatory against the Empire's most influential citizens and foreigners.

An economic policy toward Ukraine motivated simply by an anti-Ukrainian bias on the part of Soviet leaders seems even less plausible. An explicit economic bias either against or for any ethnic group would be contradictory to the entire ideological climate in the USSR. The division of the Soviet Union along ethnic borders into union republics sharply unequal in economic potential makes economic planning and management cumbersome and difficult. Still, in order not to antagonize individual nationalities, the Moscow leadership refrains from abolishing these borders and from introducing an economically more efficient regionalization.¹⁷ The government saw to it that national income, at least during the 1960-86 period, grew at a faster rate in most non-Russian republics than in the RSFSR, which ranked twelfth among the fifteen union republics. However, the Russian Federation was seventh in the growth of income per capita, a fact explicable in part by the above-average population growth in the Transcaucasian and Central Asian

republics.

With respect to various indicators of population welfare, according to Gertrude Schroeder (1981, Tables 4.1–4.7), the ranking of the RSFSR and of Ukraine among fifteen union republics in 1978 was as follows:

	RSFSR	Ukraine
Real personal income per capita	4	6
Average annual wages of state employees	3	9
Savings deposits per capita	7	6
Real per capita consumption	4	7
Per capita retail sales of food products	3	6
Per capita retail sales of nonfood products	4	7
Urban population as a percent of total population	2	6
Urban housing space per capita	6	4
Number of doctors per 10,000 persons	4	6
Number of hospital beds per 10,000 persons	3	4
Number of persons age 10 and over with higher and secondary education per 1,000 persons	5	8
Number of gainfully employed with higher and secondary education per 1,000 persons	9	6

This relatively high standing of the RSFSR incorporates the preeminence in standard of living of such showcase cities as Moscow and Leningrad. As a result, the relative poverty in some ethnic Russian regions (Central Black Soil, Volga, North Caucasus) is obscured in the data for the RSFSR as a whole (e.g. Schroeder, 1973, pp. 170, 172; Milner and Gilinskaia, 1975, pp. 58, 59). These regions supplied many migrants to the developing republics, who left primarily for economic reasons, for example, during the 1960s (Ball and Demko, 1978, pp. 101, 106).

The allocation of a relatively high share of investment to the RSFSR (Table 3.2) should not be regarded as favoritism toward ethnic Russians by the central planners. With a population accounting for 43.3 percent of the USSR's total in 1970, the European RSFSR received a proportional share, 44.0 percent, of total investment during the period between 1960 and 1975 (various issues of *Narkhoz*). On the other hand, West Siberia, East Siberia and the Far East, which accounted for 10.6 percent of the USSR population, received 15.2 percent of all investment in 1966–70, 16.1 percent in 1971–75, and 18.0 percent in 1976–80 (Dienes, 1983, p. 3, Table 1). The favoring of these regions with investment, especially of Northern Siberia and the Pacific littoral, has recently been discussed in an excellent work by Leslie Dienes (1982, 1983). According to his detailed estimates for 1975, the ratio of national income utilized (real income and gross investment, concepts somewhat larger than net investment and consumption used in the conventional national income accounting)¹⁸ to the national income produced was as follows for the three regions: West Siberia, 1.07; East Siberia, 1.18; and the Far East,

1.52 (Dienes, 1982, pp. 214–15, Table 2). In terms of two components, the indexes for the respective regions (USSR=100) were for: per capita real income of population 100, 111, 142 and per capita gross investment 151, 150, 184. As can be seen, the above ratio was higher for the Asiatic RSFSR than for the USSR partially thanks to the above average gross investment.

The above indexes on the real income of population bias the population welfare upward because of the substantially higher consumer prices in these regions than the average for the country. Thus, the improvement in the standard of living in the ethnic part of the RSFSR was not the main objective of the favorable investment policy. As will be shown subsequently, the policy seems to have been motivated mainly by defense and political considerations.

At present, almost every fifth person residing in Ukraine is an ethnic Russian. Therefore, by taking an above-average share of the income produced in Ukraine for its own needs, Moscow discriminates against ten million ethnic Russians. On the other hand, it is argued (Wiles, 1977, p. 311), that

The drain of funds from the Ukraine does not go exclusively to the expansion of Soviet military power. It also goes to the build-up that has taken place in Central Asia. In that region it is not only Russian (and Ukrainian) immigrants who benefited from new medical and education services, but the native peasantry as well.

In other words, if the nationality problem were an important factor in national income transfers, it would hardly make sense for the Moscow leadership to discriminate against some non-Russians and some Russians inhabiting a certain non-Russian national territory, in favor of other non-Russians and Russians living alongside each other in some other national territory.

Geopolitical Considerations

The evidence discussed thus far does not support the conclusion that economic and nationality considerations were decisive in the transfer of a part of the national income of Ukraine to other regions of Russia/USSR. Other considerations must have been more, or at least equally, important. In an earlier work (Koropecykj, 1970), I argued that geopolitical considerations (the relationship of geography to politics, economics, defense, etc.) were of overriding importance for decisions on overall regional developments in the USSR during the postwar period. Similar views had already been expressed by a locational specialist, Andreas Predoehl, and an eminent authority on the Soviet economy, Vladimir Timoshenko, concerning the investment policy in the USSR during the 1930s.¹⁹ Finally, the preceding discussion suggests that the same applies to the prerevolutionary, as well as recent periods and especially to the situation of Ukraine.

For an understanding of this policy, it is essential to grasp the extraordinary importance of geography, or more specifically of space, throughout the Empire's history. During the nineteenth century the Tsarist government was constantly engaged in the conquest of successively remoter territories, primarily in the east and southeast. In order to consolidate power in these new dependencies and to defend them, the government had to build outposts, military bases and transportation links.

Subsequently, the immense territory had to be integrated into the national economy of the Empire. The expenses involved in opening the new regions were beyond the capability of the private sector, so they had to be borne jointly by the private and public sectors. Even so the available resources did not allow for all regions to be developed simultaneously. As Liashchenko (1948, p. 418) noted, the capitalist metropolis:

subordinated economically national [i.e., non-Russian] peripheries, leveled their economic peculiarities, sometimes turning the national periphery into a backward agricultural appendage of the metropolis, sometimes, the other way around—into an economically inseparable part of the overall capitalist system, facilitating its capitalist development. The latter, for instance, took place with respect to Ukraine, which during the 1870s-90s already appeared as one of the principal and leading regions of the Russian capitalist system.

Thus the regime determined the order of priority for developing individual regions according to their political, military or economic importance.

Although the railroads, the most conspicuous of the government projects, constructed up to 92 percent at government cost (Liashchenko, 1948, p. 192), appear to have been intended to promote the Empire's economic and political integration, in reality their function was primarily military. In the words of one researcher, "much of it [the railroad network] was constructed to serve the needs of troop movements in case of war mobilization or actual war rather than the economic needs of freight and passenger service" (Kahan, 1967a, p. 466). Some Tsarist high officials had an even more far-reaching vision of the railroads' importance. Finance minister Witte, an enthusiast of railroad development, reportedly said that the railroads were essential for the opening of the vast Siberian expanse, the future importance of which was not only economic, social and military, but also a barrier against the population pressure of "the yellow race" (von Laue, 1969, pp. 237-38).

If any region was important for the regime, it had to be developed, regardless of which nationality inhabited it. To keep the given region under control, the notorious internal security methods of the Tsarist regime, later perfected under the Soviet successor, were devised. Furthermore, trustworthy individuals, whether Russian or non-Russian, were placed in high political and economic positions to make sure that Moscow's interests would not be jeopardized.

This approach toward regional policy has been institutionalized under the Soviet regime. It is even argued that the entire Soviet system—characterized by comprehensive planning, command approach and centralization of decision making—came into being precisely to develop the huge areas east of the Urals, a task which was beyond the capabilities of the market economy (Raupach, 1968, pp. 21–22, 26, 28, 94).²⁰ This and other geographical goals could be achieved through the appropriate spatial distribution of investment, which in the USSR is centrally planned and flows primarily through the state budget.

The available statistics and conceptual difficulties do not allow for a clear distinction between the share of investment allocated spatially according to purely economic criteria, on the one hand, and political and military criteria, on the other. But there can be no doubt that in view of the USSR's preoccupation with defense and the expansionist character of its policy, a substantially greater portion of investment has been distributed according to these considerations than was the case under the Tsarist Empire. Even investment projects that seem to have been located for economic reasons reveal, upon closer inspection, the decisive influence of defense and political criteria. Such huge recent undertakings as the Ural-Kuznetsk Combine during the 1930s (Koropec'kyj, 1971, Appendix B), the Baikal-Amur Mainline (Shabad, 1979, pp. 165, 175), and the development of North Siberian and Pacific regions (Dienes, 1982, p. 220; Dienes, 1983, pp. 3, 6) are good cases in point.

Specific aspects of Soviet geopolitics have been discussed extensively in my earlier work (Koropec'kyj, 1970, pp. 267 ff.). Most of them were already of concern to the rulers of the Tsarist Empire. In summary, by spatially distributing economic activity Moscow has tried to achieve the following: a shift in economic activity from the west toward the east; territorial dispersal of industry; a build-up of regions bordering on China; establishment of economic links between the east and west of the country; exploitation of natural resources in Asiatic regions; and development of industries important for world power politics (armaments, foreign aid, space exploration) located primarily in Moscow, Leningrad and the Baltics. The development of the Ukrainian economy was not especially attractive for any of these reasons; thus it was not emphasized, but kept at a tolerable level. The Ukrainian economy has been relegated largely to being a resource base for the development of regions important to the achievement of the enumerated objectives.²¹ Geopolitical considerations have been constant for centuries, and this explains the consistency in Moscow's policy toward Ukraine. This policy has remained basically unchanged, irrespective of the ideology of the ruling regime in the Kremlin; the logic of geopolitics was equally convincing to both the Tsars and the general secretaries of the CPSU.

In the future, the importance of the Ukrainian economy to the USSR leaders may increase. Its development may then be emphasized again, as was the case in the second half of the nineteenth century and during the late 1920s and early 1930s under Stalin. This could result from, for example, an increase in trade between the USSR and the West that requires expansion of productive and service facilities on the littoral of the Black and Azov seas (Shabad, 1977). Intensification of economic integration between the USSR and other Comecon members requiring an extensive development of Western Ukraine may act in the same direction (Popovkin, 1983, pp. 18–19). But since such developments are heavily contingent on politics, they cannot be predicted with any degree of accuracy.

NOTES

1. Iasnopolsky made such adjustments for groups of rather than individual gubernias. Thus he combined three Ukrainian gubernias (Katerynoslav, Kherson, Tavria) with three non-Ukrainian gubernias. As a result, no adjusted data for all Ukrainian gubernias are available. In order to show the difference between excess receipts over expenditures to receipts derived on the basis of unadjusted data, on the one hand, and on adjusted data, on the other, statistics for six Ukrainian gubernias (Kiev, Volhynia, Podillia, Poltava, Kharkiv, Chernihiv) in 1893 are used. The results are: 45.0 percent for unadjusted data and 36.3 percent for adjusted data. See Iasnopolsky, 1897, Appendix Tables 45, 48. According to Dobrogaev, 1928, pp. 119–21, a partial adjustment, as made by Iasnopolsky, may be misleading and, when it is not possible to make complete adjustments for receipts and expenditures, it is preferable to use unadjusted data.
2. Hryhorii Petrovsky, an early Communist leader in Ukraine, cited the data in 1913, during a debate in the State Duma in St. Petersburg. Later, he stated that these data and the entire speech were prepared for him by Lenin. Therefore, the text appears in Lenin, 1936.
3. The estimate was made as follows. According to Prokopovich, 1918, p. 25, the national income per capita (excluding services and the government sector) in 1900 was 67.25 rubles for the European part of the Russian Empire. In view of the Donbas industries and relatively productive agriculture, national income per capita in Ukraine can reasonably be assumed to have been about the same as the average for the entire Empire. Multiplying this average by the 1897 census population of the nine Ukrainian gubernias, which was 23.4 million (Leasure and Lewis, 1966), yields an estimate of Ukraine's net material product as 1,574 million rubles.
4. There are no studies concerning the reasons for the reversal of the trend of excess Ukrainian exports over imports in 1972. James Gillula suggested (in a private communication) that this phenomenon may in part be a result of the increase in the prices of oil, the bulk of which Ukraine imports from the RSFSR.
5. Such objections were heard before the Revolution (cf. Petrovsky's speech cited in

- n. 2 above), during the 1920s (cf. Volobuev, 1928, II, pp. 58–61), and in recent times (for example, see Chapter 5, pp. 000).
6. Cf. Danilov-Danilian and Zavelsky (1975, p. 555), who base their argument on Marx's discussion of the Gotha Program (Marx and Engels, 1969, pp. 18–22).
 7. Let us assume that the quantity and quality of capital per unit of labour are equal throughout the USSR and that production costs for certain products (primarily agricultural) in Ukraine are below the average for the USSR. Because wages and prices (representing average values) are equal in all regions of the USSR, the excess of produced value over labour costs (including depreciation, some taxes, increase in reserves, etc.) represents the differential rent of Ukraine.
 8. See the statement of this right of individual socialist states in the Composite Program for Further Deepening and Improving Collaboration and Development of Social-Economic Integration of Comecon (Moscow, 1971).
 9. Some Western scholars, however, claim that the equalization objective has never been a high priority for Soviet leaders (McAuley, 1979, p. 145).
 10. These were the present republics minus the three Baltic republics and Moldavia, although part of present-day Moldavia was then an autonomous republic within Ukraine.
 11. Because population estimates for 1932 and 1937 are unavailable, the results of the 1926 and 1939 censuses were used as respective weights.
 12. This reversal in the equalization trend at higher levels of income seems to contradict the hypothesis advanced by some Western economists (Cohn, 1977, pp. 78–79) who attempted to apply the pattern established by Williamson, 1965, for market economies to the Soviet economy.
 13. The prices of extractive raw materials and industrial materials, products in which these regions specialize, do not carry turnover taxes, which are included in the prices of consumer goods. Furthermore, the prices of the former group of products are low in the USSR as compared to those in international markets. If the adjustment for these two factors were to be made, the static advantage of Asiatic regions would be even higher (Dienes, 1982, pp. 221–23).
 14. For further discussion of this problem, see Gordijew and Koropec'kyj (1981, pp. 288–91) and on the 1970s, Ozornoy, 1983.
 15. Iasnopolsky (1897, Appendix Table 4) gives the following data on adjusted budget expenditures per capita on the average for 1882–89 by geographical regions (rubles): Empire's average—6.83; St. Petersburg and Moscow—94.66; border regions settled by non-Russians: Caucasus—7.03, Baltics—5.89, Poland—6.42; Turkestan—3.55, Finland—1.59; Ukraine: Kiev, Volhynia, Podillia—3.73, Chernihiv, Poltava, Kharkiv—3.29, Katerynoslav—3.82, Kherson—5.06, Tavria—6.29; Russia: Siberia—5.23, North Caucasus—4.12, Central Industrial—2.68, Central Blackearth—1.91.
 16. According to the 1897 census, ethnic Ukrainians accounted for the following percentages in the four "highest" classes in Ukraine: hereditary nobility (landowners), 27.7; personal and official nobility (state officials), 23.7; hereditary and personal honorary citizens (successful professionals and businessmen), 41.0; and merchants, 6.7 (Khomenko, 1931, p. 46).
 17. Article 14 of the Constitution of the Ukrainian SSR guarantees the "right" of the republic to secede from the USSR. The suggestion to delete this right from the

new draft of the Constitution has been rejected by the leadership on the grounds that it is a proof of voluntary union, free self-determination, and equal treatment of all Soviet nationalities. See the relevant speech of the First Secretary of the Communist Party of Ukraine, V.V. Shcherbytsky, *KU.*, 1978, no. 5, pp. 25-26.

18. Using conventional national income concepts, James Gillula calculated the ratios between utilized and produced national income for West Siberia and East Siberia in 1975. They are 1.08 and 1.13, respectively; as might have been expected, they are lower than Dienes' estimates (Dienes, 1982, p. 217, Table 3).
19. For a discussion of their views, see Koropecjy, 1971, pp. 72-73.
20. A good analogy, but without typically Russian costs involved, may be the settlement of the West in the 19th century North America. As Deutsch (1964, p. 174) puts it, "The stake was a continent to be had, if only the colonies on its eastern fringe had the wits to cooperate in settling it. They did by federating, and they got the continent with the Louisiana Purchase and all that followed from it."
21. It has been stated recently in the following terms:

The Master Chart for Location of the Productive Forces of the USSR is to become the scientific basis for regional policy in the foreseeable future. When the strategies of development and location of the productive forces of the union republic are being determined, the point of departure should be the priority socioeconomic tasks facing the country as a whole, and the main directions for improvement of the nationwide regional division of labour must be fully taken into account. As we know, one of the main directions for future development of the nationwide regional division of labour is to turn the eastern regions of the country into the principal fuel, energy, and raw materials base. At the same time emphasis in the European part of the country and in the Urals is being placed on better use of the production potential which is in place, on reconstruction and retooling of existing enterprises without increasing the size of the work force. Development of energy-and water-intensive production operations is being restricted. (Popovkin, 1983, p. 13)

Chapter 4

National Income and National Income Per Capita

Arithmetic is where the answer is right and everything is nice and you can look out of the window and see the blue sky—or the answer is wrong and you have to start all over and try again and see how it comes out this time.

Carl Sandburg

Introduction

National income is generally the most comprehensive indicator of the productive capacity of an economy while national income per capita is often used to approximate the welfare of a population. The analysis of the structure of national income and changes in it over time contributes to our understanding of how an economy adjusts to development objectives and technological change. Indicators can be used for comparisons among countries and time periods. The purpose of this chapter is to address these problems with regard to Ukraine before World War I and at present.

National income is estimated for a certain geographic area, usually a politically sovereign state, over a given period of time. Calculation of this indicator can also be undertaken for a subunit, a region of an independent state, if certain criteria are met. The subunit should be clearly distinguishable from other subunits of the state; for example, with respect to its administrative

organization or the ethnic composition of its population. Also it should not be too small relative to the dominant political unit, and thus not too dependent on the economic activity of the latter. The territorial dimensions of such a subunit should be strictly defined (Kuznets, 1951, pp. 27-28).

The present-day Ukrainian SSR meets the above criteria. Its national income has been computed. To compare this indicator in the present and prerevolutionary periods, one must calculate the national income for comparable territories. Thus, such an estimate for prerevolutionary Ukraine should include the territories which were then part of the Russian and Austria-Hungarian empires.

Our primary objective is to use national income measurements to analyze the development of the Ukrainian economy not in isolation but primarily relative to the development of Russia/USSR. Since reliable estimates for the Russian Empire and the USSR are available for 1913, 1970 and 1980, we shall calculate the indicators for these years. The revised estimates are not available for the most recent years. Instead, the official Soviet data for 1986 will be used for comparison.

Population

Population estimates are indispensable for the calculation of national income and, of course, for the comparison of results on a per capita basis with those for other countries and other periods. Population estimates for Ukraine during the post-World-War-II period are available from official Soviet sources, and are considered reliable. However, a difficulty arises with corresponding estimates for the year 1913. To arrive at an estimate for a geographic area comparable to that represented by the recent data, one must compute two estimates for 1913: (1) for nine gubernias, Kiev, Podillia, Volhynia, Kharkiv, Chernihiv, Poltava, Kherson, Tavria and Katerynoslav, which accounted for the bulk of Ukrainian ethnic lands under the Tsarist Empire, and (2) for the territories constituting the present-day Ukrainian SSR, which basically in addition to the nine gubernias include Western Ukraine (Eastern Galicia, Bukovyna, Transcarpathia).

The population estimates for the nine gubernias in 1913 were prepared by the prerevolutionary *Tsentralnyi statisticheskii komitet* (TsSK). For that year the population of these provinces amounted to 32.2 million (Table 4A.1). As their population in 1897, the last pre-Soviet census year, was 23.4 million, the growth was 2.01 percent per annum during the intervening sixteen years (Rashin, 1956, p. 44; Table A.1). We estimate the 1913 population within the present boundaries of the Ukrainian SSR at 39.1 million (Appendix 4.1 and Table 4A.1).

The TsSK estimates have been criticized on the ground that they overstate the growth of the European part of the Empire, including Ukraine, between

1897 and 1913, because of inadequate accounting for emigration from these regions to Asiatic regions (e.g., Rashin, 1956, pp. 20–24, 42–43). It is difficult to determine the extent of the overestimation with regard to Ukraine. But there is reason to believe that the upward bias is not as great as some critics claim.

Assuming that the TsSK estimates show only the natural population growth, this growth between 1897 and 1913 was higher in most of the Ukrainian gubernias than the average for the fifty European gubernias. Exceptions were Kiev and Podillia gubernias, with lower than average rates of growth (Rashin, 1956, p. 44, Table 19). Three southern gubernias (Kherson, and especially Tavria and Katerynoslav) not only experienced high natural growth but also benefited from extensive immigration (Rashin, 1956, pp. 55–56). The high rate of immigration could be observed also in Kiev gubernia, mainly as a result of the growth of the city of Kiev as an important administrative, industrial and cultural centre (Rashin, 1956, p. 59). Furthermore, although the official history of the Ukrainian economy states that emigration from Ukraine amounted to 1.6 million between 1896 and 1914, including 1.1 million during the seven years preceding World War I, the movement in the opposite direction was also strong (Nesterenko, 1954, p. 52). In 1911, for example, 68.5 percent of all emigrants of that year returned home (Nesterenko, 1954, pp. 52–53).

In any case, after the Revolution the TsSK results were criticized by the *Tsentralnoe statisticheskoe upravlenie* (TsSU), which came up with its own estimates for 1913 (TsSU SSSR za 15 let [Moscow, 1932]). Accordingly, the 1913 population of Ukraine within the interwar boundaries of the Ukrainian SSR was estimated at 27.2 million. Those boundaries, in comparison with the prewar nine gubernias, exclude Western Volhynia, which prior to 1914 had been part of the Tsarist Empire and was incorporated into Poland after World War I. They also take into account various territorial adjustments with other Soviet republics after the Revolution. Since World War II, the 1913 population of the Ukrainian SSR within the present boundaries, including Western Ukraine, has been given as 35.2 million (various Narkhoz Ukraine). These two figures continue to be cited in Soviet handbooks, apparently without any effort to improve on them.

The TsSU estimates do not inspire confidence, as the following figures illustrate:¹

TsSU estimate	27.2 million
Volhynia's population under interwar Poland	1.7 million
Other minor adjustments	-0.4 million
1913 population of nine gubernias adjusted	28.5 million

The TsSU estimate is thus lower than the TsSK estimate for the comparable territory by 3.7 million. Even if the entire emigration from Ukraine

(disregarding those who returned) during the 1896–1913 period—which, as we saw, is estimated at 1.6 million—were to be subtracted from the TsSK estimate, the TsSU estimate would still fail to account for more than two million people. Because of this substantial difference and because of the absence of any information on the methodology used to derive the TsSU estimates, it is difficult to trust the figures prepared by the Soviet agency. Therefore, in this study we shall utilize our own estimates on the basis of the TsSK estimates (Appendix 4.1). An additional argument in favor of our estimates is that Falkus (1968)—on whose work our estimation of national income is patterned—also uses Rashin-TsSK population estimates.

In conclusion, we find that our estimates of Ukraine's 1913 population exceed the corresponding Soviet official estimates by about 3.7 million people. Part of the difference may be a result of the deficiency of the prewar TsSK estimates and part may result from the problems of including Western Ukraine. But on the whole, our estimates seem to be more reliable than those of TsSU. Why then do Soviet sources cling to the inferior estimates? It can be hypothesized that TsSU's low population estimates for Ukraine in 1913 are maintained intentionally in an effort to overstate population growth and thus implicitly to blunt the tremendous population losses in Ukraine under Soviet rule.

National Income

This section is devoted to a discussion of the derivation of Ukrainian national income in 1913, 1970 and 1980. For the sake of comparability between Ukraine and Russia/USSR, national income and national income per capita for Ukraine were estimated using the same methodologies as the Western estimations of these indicators for the Tsarist Empire and the USSR. For this reason we first provide a brief description of the methodology of the derivation of Russia/USSR's estimates. The computation and sources of Ukrainian estimates are described in Appendices 4.2, 4.3 and 4.4.

National income for Tsarist Russia in 1913 was recently calculated by Falkus (1968) and Gregory (1976). Our work will be comparable to that of Falkus. His calculation is essentially an improvement on estimates by Prokopovich (1918) and Prokopovich (1931). Falkus derives his estimate by summing the net value added in material production sectors. The income originating in foreign trade as well as in the services and the government sector is not included. His calculations are made for three territorial variants: the fifty European gubernias of the Empire, the entire Empire, and the interwar boundaries of the USSR (Falkus, 1968, p. 55, Table 2; Table 4.1).

Gregory's work confirms the reliability of Falkus' estimates. Gregory estimates national income for the Empire and the USSR interwar boundaries for the same year as Falkus by using the flow of product approach. Unlike

Falkus, Gregory includes the product of nonmaterial sectors. According to Gregory's calculations, when Falkus' omissions are added to his estimates, they exceeded Gregory's by less than 2 percent in the case of the interwar boundaries of the USSR and by less than 7 percent in the case of the Empire (Gregory, 1976, Appendix B, Table 8).

Two variants of Falkus' estimates and our results, for two territorial concepts, the nine gubernias and the present boundaries of the Ukrainian SSR, are shown in Table 4.1.

To check our results, it would also be desirable to calculate the national income for Ukraine by using the product flow approach. But the necessary data are unavailable. The same is true for subunits of other independent political states in general. Therefore, as a rule, regional national income estimates are computed by the use of the flow of earnings and costs or by the sectoral net value added approaches only. Even though our results cannot be confirmed by the flow of product approach, it seems that they can be used reliably for comparison with those of Falkus, since exactly the same methodology was employed in both cases and the data base is not much different.

Our result for 1913 for the present boundaries of the Ukrainian SSR cannot be compared with any other estimate, since to the best of our knowledge no one in the West or in the Soviet Union has undertaken such work. With respect to the nine gubernias, there is a Gosplan (1927, p. 238) estimate available, amounting to 3,225 million rubles. Unfortunately, there is no information provided about Gosplan's methodology or, most important, the sectors included. It appears that agriculture, including forestry; industry, including construction; and transportation were studied. The remaining sectors, communications and trade, are definitely excluded from the Gosplan estimate. If this is indeed the case, then the sum of these figures (Table 4A.2) is about 6 percent lower than the Gosplan figure. This can be considered a small difference.

We also have recent estimates of a national income prepared by David Good (1984, Appendix C)² for a territorial unit related to ours, for all Galicia and all Bukovyna in 1913. As shown in Table 4A.2A, 62.9 percent of Galicia and 53.2 percent of Bukovyna, in terms of the 1913 population, are now part of the Ukrainian SSR. Since Good uses the GNP concept, his estimates are not directly comparable with the gross material product estimates in our table. Good's GMP per capita incomes for all Galicia and all Bukovyna in 1911-13 amount to 125 and 122 rubles, respectively (1984, p. 278, Table C.6).³ Our estimates of GNP per capita are equal to 86 rubles for Galicia and 98 rubles for Bukovyna (Table 4A.1 and 4A.2). To make these two sets of data comparable, we increased our results by Good's available estimate of the nonmaterial production sector share for GMP for Galicia by 34.2 percent and for Bukovyna, by 41.2 per cent.⁴ The resulting figure for Galicia is 6 percent and for Bukovyna 22 percent higher than Good's data. The reason for these

TABLE 4.1 Population, National Income (NMP, GNP), National Income per Capita for Ukraine and Russia/USSR, 1913, 1970, 1980, and 1986

	Population (millions)	National Income (million rubles)	National Income per Capita (rubles)
1913 (NMP)			
1. Ukraine's Nine Gubernias	32.2	3,393	105.3
2. Ukrainian SSR, Present Boundaries	39.1	3,963	101.4
3. 50 European Gubernias	121.8	13,066	107.3
4. Russian Empire	161.7	18,476	114.3
5. USSR, Present Boundaries	170.4	n.a.	n.a.
1970 (GNP)			
6. Ukraine (JEC)	47.1	59,955	1,273
7. USSR (JEC)	241.7	328,080	1,357
8. Ukraine (Campbell)	47.1	65,190	1,384
9. USSR (Campbell)	241.7	356,200	1,474
1970 (NMP)			
10. Ukraine	47.1	54,800	1,163
11. USSR	241.7	289,900	1,196
1980 (GNP)			
12. Ukraine	50.0	98,756	1,975
13. USSR	264.5	589,500	2,229
1980 (NMP)			
14. Ukraine	50.0	77,500	1,550
15. USSR	264.5	462,200	1,747
1986 (NMP)			
16. Ukraine	51.2	97.4	1,902
17. USSR	281.7	587.4	2,085
Percentages			
1913			
18. Ukraine's Nine Gubernias/ 50 European Gubernias (Lines, 1,3)	26.4	26.0	98.1
19. Ukraine's Nine Gubernias/Russian Empire (Lines 1, 4)	19.9	18.4	92.1

20. Ukrainian SSR, Present Boundaries/Russian Empire (Lines 2, 4)	24.2	21.5	88.7
21. Ukrainian SSR, Present Boundaries/USSR, Present Boundaries (Lines 2, 5)	22.9	n.a.	n.a.
1970			
22. Ukraine/USSR - GNP (Lines 6, 7)	19.5	18.3	93.8
23. Ukraine/USSR - GNP (Lines, 8, 9)	19.5	18.3	93.9
24. Ukraine/USSR - NMP (Lines 10, 11)	19.5	18.9	97.2
1980			
25. Ukraine/USSR - GNP (lines 12, 13)	18.9	16.8	88.6
26. Ukraine/USSR - NMP (Lines 14, 15)	18.9	16.8	88.7
1986			
27. Ukraine/USSR - NMP (Lines 16, 17)	18.2	16.6	91.2

SOURCE: Lines 1 and 2. Appendixes 1 and 2.

Lines 3 and 4. Falkus, 1968, p. 55, Table 2.

Line 5. TsSK 1914, pp. 33-57. Calculated with the help of Leasure and Lewis, 1966, methodology (Appendix 1).

Line 6. Narkhoz Ukraine 1980, p. 4; Appendix 3.

Line 7. Narkhoz 1980, p. 7; JEC, 1982, pp. 143-44, Table D-7, adjusted for turnover and other indirect taxes and subsidies.

Lines 8 and 12. Narkhoz Ukraine 1986, p. 228; Appendix 4.

Line 9 and 13. Narkhoz 1984, p. 5; Campbell, 1985, Table 7.

Line 10 and 14. Narkhoz Ukraine 1986, pp. 228, 251.

Line 11 and 15. Narkhoz 1984, pp. 5, 424.

Line 16. Narkhoz 1986, p. 374; Narkhoz Ukraine, 1986, p. 251.

Line 17. Narkhoz 1986, pp. 122, 373.

differences, particularly in the case of Bukovyna, is no doubt the lack of specific statistics for the Ukrainian parts of these two provinces.

Finally, the following comments about our calculation of the 1913 national income should be made. For comparisons in this chapter and in Chapter 2, we need the estimate of mentioned income for nine gubernias in two variants: (1) the 1913 administrative boundaries and (2) the territories which were a part of the Russian Empire and subsequently became components of the Ukrainian SSR. Because of various border adjustments between Ukraine and

other Soviet republics following the Revolution, variant (2) is larger than variant (1) by 3.3 percent in terms of territory and by 1.2 percent in terms of population (Leasure and Lewis, 1966, Table 1). To compensate for this difference in calculating the national income within the present boundaries of the Ukrainian SSR, the national income calculated for the nine gubernias (variant 1) was increased by 1.2 percent (Table 4A.2).

The 1913 national income within the present boundaries of the Ukrainian SSR was derived by adding estimates for the four pre-World War I political regions of Ukraine: the nine gubernias, East Galicia, Bukovyna and Transcarpathia. The availability of statistics for these territories varies sharply. While the statistics for the nine gubernias are quite sufficient for our purposes, the corresponding direct data for the remaining three Ukrainian regions are virtually nonexistent. As described in Appendix 4.2, such statistics are to a certain extent available for the larger political entities to which the three regions belonged, namely the whole of Galicia, the whole of Bukovyna, and the four *Munizipien* (counties) of Hungary in which the Ukrainian population predominated. Therefore, in virtually all cases, the variables needed for the estimation of national income had to be allocated from these larger political units to our three components in proportion either to the population or to the geographical area. Such an approach implies uniform production structure of the analyzed sectors and equal productivity in the included regions. Of course, that uniformity did not exist. On the other hand, no substantial difference in production structure and productivity between the Ukrainian and non-Ukrainian areas of these predominantly agricultural political entities can be expected either. In any case, the individual estimates for these three Ukrainian regions as well as their total, for the entire Western Ukraine, are inferior to the estimates for the nine gubernias and must be regarded as preliminary until, we hope, better data become available.⁵

Concerning the post-World War II period, TsSU annually publishes data on national income. Such data are available for the Ukrainian SSR since 1958. They do not inspire confidence because of various deficiencies. Some of these deficiencies occur equally in the estimates for the USSR and for individual republics, while others apply only to the republic estimates. The following belong to the former group: (1) the exclusion of nonmaterial sectors of production and depreciation allowances (therefore, these estimates are referred to as NMP), (2) the lack of explanation of the methodology used in constructing this indicator, (3) the tendency of the prices used for calculation of annual national income estimates to bias the growth rate upward (JEC, 1982, pp. 12-13).⁶

The following deficiencies are applicable to the national income estimates for the republic only. (1) The prices of various commodities in the USSR are differentiated regionally, a fact which is supposed to reflect differences in the cost of production. Furthermore, the prices are affected differentially by the

differences in the profit rate among individual economic sectors, industrial branches, and products. A republic producing, for example, more higher-priced and profitable commodities relative to other republics will have its national income biased upward. (2) Turnover taxes are imposed only on some commodities. A republic producing more of such taxed commodities will have a relatively higher national income than other republics. (3) The level of a republic's national income will also depend on the methodology of calculation. This fact is related to the budgetary relations between republic and union authorities. For example, if a republic pays more to the union budget than it receives from it, then the national income calculated according to the flow of costs and earnings approach will exceed national income calculated by the end use approach (Koropecyk, 1972).

For these reasons, revised estimates of national income for the USSR and Ukraine were prepared in the West for various years. The most recent for the USSR are those by the JEC (1982) and Campbell (1985). Both served as patterns for alternative derivations of Ukraine's GNP for 1970. For 1980 only Campbell's method was used. The JEC estimated the GNP for the Soviet Union for 1970 as a part of its investigation of Soviet economic growth between 1950 and 1980. The GNP was calculated using two approaches: the net value added by individual sectors and the end use of product. Both variants were calculated in established prices and adjusted to factor cost prices (established prices gross of subsidies and net of indirect taxes, including turnover tax). The 1970 GNP components at factor cost were used as weights for the 1950-80 series of output of individual economic sectors and of the individual components of end use.

Since the information required for the calculation of national income using the end use methodology and the data on established prices are very sparse for Ukraine, we calculated the JEC version of Ukrainian GNP in 1970 in factor cost prices according to the sector of origin approach. The latter methodology is conducive to an analysis of the productive capacity of individual sectors of the Ukrainian economy. For purposes of comparison, the JEC estimates by sectors of origin in established prices were adjusted by adding subsidies and subtracting turnover and other indirect taxes.

An alternative estimate of the Ukrainian GNP in 1970 was derived using the method developed by Campbell (1985). This method required less statistical information than other methods utilized in the West. Briefly, one starts with the assumption that the official data on material production, NMP, are reliable for various analytical purposes. To obtain the estimate of GNP, one adds the following items to the official NMP: wages earned and profits in nonmaterial sectors, including nonproductive transportation and communication; the wage bill of military personnel; rent on private urban and rural housing; and the total depreciation, net of capital repairs. Campbell's method based on Soviet established prices is justifiable in view of the

objective of the project of which this calculation was a part; namely, to build a basis for conversion of rubles into dollars. This should allow a reliable comparison of the national income per capita in the USSR with that in other countries of the world.

Of course, these two methodologies lead to somewhat different results. The JEC estimate (1982, p. 54, Table A-1) exceeds Campbell's (1985, p. 37, Table 7) by almost 8 percent in 1970 and falls short by 11 percent in 1980. An analysis of the reasons for these differences is outside the scope of this study. Our purpose is to investigate the shares of Ukrainian economy in the total economy of the USSR, in each case using estimates derived on the basis of the same methodologies. Both the JEC's and Campbell's approaches yield exactly the same results for 1970; the Ukrainian GNP accounts for 18.3 percent of that for the USSR (Table 4.1).

In both cases, JEC and Campbell, national income is calculated in terms of Gross Domestic Product. The difference between GDP and GNP is due to the income received from abroad and factor payments from foreign countries. Both calculations are also intended to show National Income Produced rather than National Income Utilized, the difference being capital losses and net foreign investment. Furthermore, national income estimates, whether official or revised, are more reliable indicators of the productive capacity in the USSR than of population welfare, because the share of investment and defense expenditures in the total output are larger than in most countries of the world. The differences between GDP and GNP and between NIP and NIU are negligible for the USSR. The same is true for Ukraine in the former case. However, the difference between NIP and NIU in Ukraine was by all accounts larger than for the USSR as a whole. As shown in Chapter 3, part of the Ukrainian national income was transferred during various periods, most likely including our benchmark years, to other regions of the USSR. This fact further reduces the reliability of national income and national income per capita estimates (subsequently referred to as GNP and GNP per capita) as indicators of welfare of the Ukrainian population. In comparison with other countries of the world, they should be viewed primarily as indicators of Ukraine's productive capacity.

Our results for 1970 will now be compared with the corresponding estimates made in the USSR and the West. Soviet handbooks list the Ukrainian NMP in 1970 at 54.8 billion current rubles. In the case of the Campbell variant of our estimate we use this figure as the starting point. In case of the JEC variant, if we subtract depreciation, services and military sectors, we obtain 47.1 billion rubles, which is 16.3 percent lower than the official figure. A part of the difference arises because the official NMP includes turnover taxes and excludes subsidies, while our estimate is, of course, in factor cost. For comparison, if the JEC estimate for the USSR in the same year is similarly adjusted, the revised NMP is 14.6 percent lower

than the official figure (JEC, 1982, pp. 143–44, Table D–7, Narkhoz 1972, p. 531). The CIA (1975, p. 17) makes a similar comparison but in established prices. It makes various adjustments (for example, for special earnings from foreign trade) which are not possible for Ukraine. As a result, the revised version is 10 percent higher than the official NMP. Campbell (1985, pp. 9–11) believes that further adjustments (for example, of “unallocated” items to individual sectors of material production) could bring the two versions even closer. One can infer that such adjustments would also make the two versions of Ukrainian NMP close.

In the West, in an earlier study, we calculated a revised estimate of the Ukrainian GNP in 1970 (Koropecykyj, 1975). This work was completed before that of the CIA (1975) became available. We derived our earlier estimate also by using the sector of origin approach and the factor cost valuation. That estimate is higher than our present estimate by 11.6 percent. The differences in the returns to labor and capital are quite pronounced. There are two causes for these differences. First, in contrast to CIA-JEC and Campbell's methodologies, in our 1975 work we explicitly estimated differential rent in agriculture and the extractive industries. The differential rent is implicit in the returns to labour and capital in the present study. Second, information for the calculation of items such as income in kind is very scarce or unavailable for Ukraine. Various approximations had to be made to account for such components. In the present study we account for these indirectly by using the information for the USSR given in the Western studies.

There are other Western estimates of the Ukrainian national income available but they are for different years and refer to NMP only. The revised NMP estimate by James Gillula amounts to 38.9 million rubles for 1966 and 56.5 billion rubles for 1972 (1983, pp. 116, 117). The estimates were derived using input-output tables. Since Gillula's estimates and ours are in current prices, it is difficult to compare his 1966 estimates with ours, because of the revisions of Soviet prices in 1967. However, if we apply the official growth rate of 9 percent between 1970 and 1972 to our estimate, our estimate is still lower than Gillula's by 9 percent. In addition to the possible deficiency of the growth rate, this difference is also a result of the varied methodologies employed.

Both the JEC and Campbell prepared revised GNP estimates for the USSR for 1980. The derivation of a corresponding Ukrainian estimate using the JEC methodology is not possible, because of the curtailment of the publication of statistical data for Ukraine beginning in 1973. The reduction has been especially severe since 1975. It is equally difficult to estimate Ukrainian growth rates up to 1980 as the JEC work did for the USSR. Therefore, we calculated the revised Ukrainian GNP for this year using Campbell's approach. The result, in established Soviet prices, is shown in Table 4.1. To the best of our knowledge, there are no other estimates of Ukrainian GNP for

this year.

According to official indicators, the growth of the Ukrainian economy during the seventies and eighties was among one of the slowest (fourteenth for the NMP) of all the Soviet republics.⁷ It is thus important to analyze the relative position of Ukraine vis-à-vis the USSR and other republics for the most recent year for which official data are available. Therefore we list such information for 1986 in Table 4.1, with the reminder that all caveats with respect to its reliability should be kept in mind. To link the 1986 data with our estimates for 1970 and 1980, we also list the official data for the latter two years.

Before the indicators in Table 4.1 are discussed, the following two difficulties should be noted:

(1) In order to undertake intertemporal comparisons, the territorial dimensions of Ukraine and Russia/USSR should be comparable for the benchmark years. In this study, the 1913 national income has been calculated for the territory of Ukraine within the present boundaries of the Ukrainian SSR. There is no comparable estimate of national income in 1913 for the territory of the present USSR. Falkus' estimate for the Empire, without Finland, is with respect to the population the closest approximation of the latter entity. In comparison with the present USSR, it basically includes ten Polish gubernias and excludes West Ukraine. These gubernias, with a population of almost 12 million, exceeded the West Ukraine's population of 6.48 million (Table A.1) by about 5.5 million, or about 3.4 percent of the Falkus population. These 5.5 million people presumably produced a higher national income than was produced in the Empire within the present boundaries of the USSR. For this reason, our Ukrainian share in the 1913 national income of the Empire is understated. On the other hand, the Polish gubernias were on the average better developed⁸ and West Ukraine less developed⁹ than the Tsarist Empire. In view of the lack of a better alternative, we have to assume that these two factors largely cancel each other.

(2) National income indicators for different years are not conceptually comparable: they include revised NMPs for 1913, revised GNPs for 1970 and 1980, and official NMPs for 1970, 1980 and 1986. However, we attempted to make the indicators for Ukraine and Russia/USSR strictly comparable for the same years by using the same methodology for the construction of indicators.

The upper portion of Table 4.1 presents population, national income, and national income per capita for Ukraine and Russia/USSR in absolute terms for the benchmark years, while the lower portion shows the relative position of Ukraine versus Russia/USSR with respect to these three indicators.

The share of Ukraine in the total population of Russia/USSR declined decisively during these seventy-three years, from 22.9 to 18.2 percent. Two basic reasons can be given for this decline. (1) Ukraine suffered considerable population losses during events of the period, the most important of which

were: World War I, the Ukrainian struggle of independence (1917–21), famine (1921–22), the Stalinist terror (1929–37), the Great Famine (1932–33), World War II, guerrilla fighting (1943–51), famine (1946–47), deportation to Siberia, and flight to the West after World War II. (2) The growth of Ukraine's population during the Soviet period was one of the lowest among all republics.¹⁰

For national income we cannot make precise comparisons between the relative position of Ukraine in 1913 and in recent years. But the table shows that whether we are using official or revised data, Ukraine's importance in the postwar benchmark years declined in comparison with 1913. The Ukrainian share in the national income of Russia/USSR declined from over 21 percent to between 16 and 17 percent. The decline accelerated during the 1970s and the early 1980s, as Ukraine accounted for 16.6 percent of USSR's NMP in 1986.

The decline of Ukraine's importance in the total Soviet economy was not the same for individual sectors, as illustrated in Table 4.2. Both revised and official data show the decline of industrial output shares of about four points between 1913 and 1970. The drop of a further two points can be observed during the subsequent eight years. On the other hand, the Ukrainian share in agricultural output increased by about two points between the prerevolutionary benchmark year and 1970. Afterward, it remained at about the same level. In view of the expansion of arable land in Western Siberia and Kazakhstan, this trend is a further proof of the high productivity of Ukrainian agriculture. The sharp decline in the Ukrainian share of other material production sectors output—6.6 percentage points between 1913 and 1978—reflects relatively large investment requirements in the construction and transportation sectors necessitated by the great distances and harsh climate in the Eastern regions of the USSR.

The decline of the relative importance of Ukraine is also evident in the case of services. Since we do not have consistent data for this sector for both prerevolutionary and present periods, we must rely on indicators that are not strictly comparable. According to the revised estimates for 1970 and 1980, Ukraine accounted for only about 15 percent of services in the USSR, well below its population share. However, in terms of employment in this sector, the Ukrainian share was 17.8 percent in 1975 (the last year for which data are available). On the other hand, in terms of fixed capital, a noticeable decline of 2.7 percentage points in the Ukrainian share of the USSR's supply of services can be observed between 1970 and 1986. This decline was caused primarily by the decrease in Ukrainian share of fixed capital in housing from 18.6 percent to 15.7 between 1970 and 1986.¹¹ To compare the Tsarist period with the Soviet period for the service sector, we used data on employment in the fields of medicine and education. In both years, 1897 and 1975, the relative position of Ukraine in this respect roughly corresponded to its population.

TABLE 4.2. Ukrainian Shares in Russia/USSR by Economic Sectors (percent)

	1913(r)	1970(r)	1970(o)	1980(o)	1986(o)
1. Net Material Product	21.4	19.0	18.9	16.8	16.6
2. Agriculture	20.3	20.8	22.0	23.5(1978)	n.a.
3. Gross Agricultural Output	n.a.	n.a.	22.7(1966-70)	23.2(1976-80)	22.4(1981-86)
4. Industry	22.8	18.8	18.5	16.9(1978)	n.a.
5. Gross Industrial Output	n.a.	n.a.	18.9	18.2	18.0
6. Other Material Production Sectors	23.0	17.6	17.2	16.4(1978)	n.a.
7. Fixed Assets (NMP)	n.a.	n.a.	16.5	14.8	13.2
8. Nonmaterial Production Sectors	n.a.	15.0 (JEC) 14.4 (Campbell)	n.a.	14.3(Campbell)	n.a.
9. Employment	n.a.	n.a.	17.0	17.8(1975)	n.a.
10. Employment in Health and Education Branches	22.4 (1897)	n.a.	18.6	18.5(1975)	n.a.
11. Fixed Assets (NonMPS)	n.a.	n.a.	18.2	16.4	15.5

Note: r - revised o - official

SOURCE:

- Line 1. Tables A.2, A.3; Narkhoz Ukraine 1986, p. 251; Falkus, 1968, p. 55, Table 2; JEC, 1982, pp. 143-44; Narkhoz 1986, p. 122.
 Line 2. Tables A.2, A.3; Narkhoz Ukraine 1978, p. 215; Falkus, 1968, p. 55, Table 2; JEC, 1982, pp. 143-44; Narkhoz 1978, p. 386.
 Line 3. Narkhoz 1986, p. 214.
 Line 4. Tables A.2, A.3; Narkhoz Ukraine 1978, p. 215; Falkus, 1968, p. 55, Table 2; JEC, 1982, pp. 143-44; Narkhoz 1978, p. 386.
 Line 5. Gillula's estimates (1978, p. 153, Table A.3) extrapolated using official growth rates, Narkhoz 1986, p. 133.
 Line 6. Tables A.2, A.3; Narkhoz Ukraine 1978, p. 215; Falkus, 1968, p. 55, Table 2; JEC, 1982, pp. 143-44; Narkhoz 1978, p. 386.
 Line 7. Narkhoz Ukraine 1986, p. 47; Narkhoz 1986, p. 100.
 Line 8. Table A.3, A.4; JEC, 1982, pp. 143-44; Campbell, 1985, Table 7. Campbell's estimates and those for Ukraine using his method are net of depreciation.
 Line 9. Narkhoz Ukraine 1975, p. 356; Narkhoz 1975, p. 533.
 Line 10. TsSK, 1905, refers to the Empire without Finland and Poland; Narkhoz Ukraine 1975, p. 356; Narkhoz 1975, p. 533.
 Line 11. Narkhoz Ukraine 1986, p. 47; Narkhoz 1986, p. 100.

National Income per Capita

Turning our attention now to national income per capita, we find that for the Ukrainian lands under the Tsarist Empire this indicator was slightly below the average for the Empire in 1913 (Table 4.1, Lines 18, 19). When we add Western Ukraine to the nine gubernias, the resulting national income per capita in relation to that for the Empire drops below 90 percent, a fact that reflects the relatively low level of economic development of the Ukrainian regions under Austria-Hungary. As a result of the decline in the share of both population and national income of the USSR, little change in the relation of Ukraine's national income per capita to that of Russia/USSR is observed between 1913 and 1970. According to the revised data, the per capita income of Ukraine relative to the USSR was in the range of 94 to 97 percent in 1970. It fell to about 90 percent in 1980 and remained at that level in 1986. If we use the official population data for Ukraine in 1913, 32.6 million, its NMP per capita would be almost equal to that of the Empire. The decline in this indicator between 1913 and 1986 would amount to almost 10 percent.

With respect to other union republics, Ukraine's growth rate of income per capita was in tenth place between 1960 and 1986 (Narkhoz 1970, pp. 9, 534; Narkhoz 1986, pp. 123, 374; Narkhoz Latvia 1971, p. 56). As a result, Ukraine dropped from its customary fifth place during most of the postwar period to sixth place in 1986 among the fifteen republics. It is now preceded in that order by Latvia, Estonia, Belorussia, Russian SFSR, Lithuania; closely followed by Armenia, Georgia, Moldavia; and then by Azerbaidzhan, Kazakhstan, Kirghizia, Uzbekistan, Turkmenistan and Tadzhikistan. However, this insignificant change in ranking obscures two strong trends which offset each other during this quarter of the century: Ukraine was next-to-last for NMP growth and last in population growth among the union republics.

Finally it is of interest to compare Ukraine's national income per capita in the prerevolutionary and recent periods with other countries. This is not the place for a detailed discussion of the difficulties arising in international comparisons of this indicator. Nevertheless, three such difficulties deserve mention. (1) In some cases the boundaries of a country have undergone changes during the analyzed period, and the national income data refer to the boundaries in particular years (compare the boundaries of Germany in 1913 and the boundaries of West Germany or Austria-Hungary and Hungary today in Table 4.3). (2) Individual countries often use different methodologies to calculate their national incomes (compare NMP and GNP). (3) National incomes are estimated in national currencies.

Various difficulties are encountered in remedying these obstacles. Adjustment for changes in boundaries is often difficult because of the lack of necessary statistics. On the other hand, the recalculation of available estimates

TABLE 4.3 National Income per Capita for Selected Countries

	1913		1970		1980	
	1913 Rubles (1)	Percent (2)	1970 U.S. Dollars (World Bank) (3)	Index (4)	1980 U.S. Dollars (5)	Index (6)
United States	682.2	672.8	8,723	330.2	11,360	304.9
Great Britain	446.6	440.4	6,238	236.1	7,920	212.6
France	354.7	349.8	8,162	308.9	11,731	314.8
Germany/ FRG	300.1	296.0	9,684	366.5	13,590	364.7
Italy	209.0	207.0	4,711	178.3	6,480	173.9
Austria-Hungary	174.9	172.5	n.a	na.	n.a	n.a
Russia/USSR	101.4	100.0	2,814	106.5	4,140	112.5
Poland	n.a.	n.a	2,389	90.4	3,730	100.1
Bulgaria	97.2	95.9	2,223	84.1	n.a.	n.a.
Romania	97.2	95.9	951	36.0	2,680	71.9
Yugoslavia	n.a.	n.a.	1,476	55.9	2,620	70.3
Ukraine	101.4	100.0	2,642	100.0	3,726	100.0

SOURCE: Column 1. Russian Empire, Falkus, 1968, p. 55, Table 2; Ukraine, Table A.2; Other countries, Koniunktumyi Instytut, *Mirovye khoziaistvo, Statisticheski sbornik za 1913-25 gg.* (Moscow, 1926), cited by Falkus, 1972, p. 12, Table 1. Data for the USSR refer to interwar boundaries.

Column 3. Ukraine, Table A.4, for adjustment, see the text; World Bank, 1982, pp. 18, 23-4.

Column 5. Ukraine, Table 4A.4, for adjustment, see the text; Marer, 1985, p. 86, Table 3-18, pp. 104-105, Table 3-21.

according to a uniform methodology can sometimes be accomplished. Finally, national income estimates in different currencies are usually converted to a single currency on the basis of prevailing exchange rates. But the official exchange rates—there are more than one in some countries—do not adequately express the purchasing power of different currencies because of the limited international mobility of some products and factors as well as government intervention. In fact, the multiple exchange rates of socialist countries, especially of the USSR, are useless for international comparisons of national income because of their arbitrary character. For these reasons researchers often compute purchasing power parities (PPP), a concept developed by Milton Gilbert and Irving Kravis. This method amounts to the valuation of physical output in two countries under analysis in the prices of one country and then of another. The geometric mean of the two resulting exchange ratios is then computed.

Despite these difficulties, it is worthwhile to undertake a comparison of Ukraine with selected countries. Although the production structure and scarcity relations are somewhat different in Ukraine than in Russia/USSR, we assume that the exchange rates of the ruble into other currencies is the same for both national economies. The relevant data are listed in Table 4.3. The political boundaries, national income concepts, and the currency conversions methodologies underlying these data are different between the benchmark years. Thus, absolute data are not comparable over the time. However, the countries' data for an individual year are comparable in the above mentioned respects, and consequently, the index numbers between the benchmark years are also comparable.

For 1913, the NMP data were taken from Falkus (1972) who utilized the information prepared by a Soviet research institute. No explanation of the data was given by this institute. The Ukrainian estimate was derived in Appendix 2.

The estimates of per capita incomes in U.S. dollars for 1970, except Ukraine, (Column 3) were derived on the basis of World Bank (1982) information for 1979. These data were then extrapolated to 1970 on the basis of growth rates. This appears to be the most reliable source of information for the socialist countries. Still the Bank warns that, in view of their indirect derivation, "The figures...should be treated as very tentative." The data for market economies could have been taken directly from various other sources. For the sake of comparability they were derived in the same way as the data for planned economies. For the Ukrainian GNP per capita we used our estimate, derived by the Campbell method (Appendix 4). This ruble estimate was converted into dollars with the help of the ratio of the World Bank's data for the USSR in dollars to Campbell's in rubles (Table 4.1).

The data in U.S. dollars for 1980, except for Ukraine, were taken from Marer (1985). For Ukraine we used our estimate (Appendix 4) and converted

it into dollars with the exchange rate for the USSR, \$1 = 0.53 rubles. This rate was derived by Marer as a part of the World Bank project on comparisons of the gross domestic product worldwide. For the USSR, as his starting point, Marer took Campbell's (1985, pp. 24-27 and Table 9) conversion rate of \$1 = 0.40 rubles, which he raised by an index of 1.32 in order to account for the systematic difference between conventional exchange rate and the PPP based rate for the studied countries (except the highly developed countries) (Marer, 1985, Chapter 3). However, no such correction was undertaken here because of the lack of the necessary information.

A definite trend can be observed on the basis of the data in Table 4.3. There is no doubt that Ukraine improved its standing among other countries with respect to national income per capita between 1913 and 1970 or 1980. The advantage of the United States over Ukraine in this respect was cut by more than one half. The same is also true for other developed Western nations, although to a lesser extent. One exception is West Germany which gained on Ukraine. However, one has to keep in mind that Germany's data for 1913 include the substantially less developed East Germany. A comparison between the 1970 and 1980 indexes reveals that Ukraine's trend to improve versus developed Western nations was rather slow during this decade. It is no doubt a reflection of the general slowdown of the Ukrainian economy during the 1970s which continued into the early 1980s. Of particular interest is a comparison of Ukraine with European socialist countries. It appears that Ukraine had done slightly better than Bulgaria by 1970 and Romania by 1980. However, the development of Poland and Yugoslavia during the decade of the 1970s, for which comparable data are available, was somewhat superior to that of Ukraine.

To sum up, Ukraine under the Soviet regime in general gained in the ranking of national income per capita relative to developed Western countries. The trend relative to European socialist countries is mixed. As mentioned earlier, as a result of the offsetting trends of population growth and NMP growth, Ukrainian ranking in regard to this indicator among the Soviet Union republics remained virtually unchanged during the postwar period. Finally, to repeat, a relative improvement or loss of Ukraine's income per capita relative to the nonsocialist nations should more accurately be considered a reflection of its increased or decreased productive capacity rather than of the welfare of its population.¹²

Appendix 4.1.

The purpose of this appendix is to estimate the population of Ukraine in 1913 within the 1961 boundaries of the Ukrainian SSR.¹³ This objective was accomplished by using the TsSK data for the nine gubernias of the Tsarist

TABLE 4A.1. Derivation of 1913 Population in 1961 Boundaries of the Ukrainian SSR

	1913 Population (thousand)	Allocation Percentages	Post 1917 Changes (thousand)	Ukrainian SSR, 1961 Boundaries (thousand)
	(1)	(2)	(3)	(4)
Kiev Gubernia	4,728	100.0		4,728
Podillia "	4,006	95.7		3,834
Volhynia "	4,130	97.2		4,014
Kharkiv "	3,392	100.0		3,392
Chernihiv "	3,120	71.7		2,237
Poltava "	3,754	100.0		3,754
Kherson "	3,678	96.2		3,538
Tavria "	2,033	100.0		2,033
Katerynoslav "	<u>3,373</u>	100.0		<u>3,373</u>
Nine Gubernias	32,214			30,903
Kherson Gubernia to Moldavian SSR		3.8	140	
Podillia " to Moldavian SSR		4.3	172	
Volhynia " to Belorussian SSR		2.8	116	
Chernihiv " to Belorussian SSR		2.1	66	
Chernihiv " to Russian SFSR		26.2	<u>817</u>	
From Nine Gubernias to Other Republics			1,311	
Don Gubernia	3,831	6.6		253
Kursk	3,224	9.2		297
Voronezh	3,595	2.5		90
Orel	2,750	2.1		58
Minsk	3,008	3.5		105
Bessarabia	2,623	32.8		860
Lublin	1,467	3.1		<u>45</u>
From Other Gubernias				1,708
East Galicia			5,263	
Bukovyna			431	
Transcarpathia			<u>792</u>	

Western Ukraine	<u>6,486</u>
Ukrainian SSR	39,097

SOURCE: Sources for Table 4A.1.

Column 1. Average of data for 1 January 1913 and 1 January 1914: Rashin, 1956, pp. 44-45, Table 19; TsSK 1913, pp. 33-57; TsSK 1914, pp. 33-57.

Column 2. Leasure and Lewis, 1966, Table 1.

Columns 3 and 4. Derived by application of percentages from Column 2 to the data of Column 1 with the following exceptions:

East Galicia: 62.9 percent of total Galicia (7,037.3 thousand) amounting to 4,426.5 thousand in 1897 (*idem*) extrapolated to 1913 on the basis of growth rates between censuses in 1900 and 1910 of Lviv and Brody *Handelsbezirks*, without Brzozów, Cieszanów, Jarosław, Krosno, Lisko, Przemyśl, and Sanok *Bezirks* which are now part of Poland (*Ergebnisse* 1912).

Bukovyna: 53.2 percent of the whole of Bukovyna (696.4 thousand) amounting to 370.5 thousand in 1897 (Leasure and Lewis, 1966, Table 1) extrapolated to 1913 by using 1900-10 growth rates of Bukovyna, without Gurahumora, Kimpolung, Radantz, Sereth, and Suczawa *Bezirks*, which are now part of Romania (*Ergebnisse* 1912).

Transcarpathia: 4.1 percent of Hungary (16,177.6) amounting to 663,300 in 1897 (Leasure and Lewis, 1966, Table 1), extrapolated to 1913 with the help of 1900-10 growth rates of four *Munizipien*: Berehovo, Uzhhorod, Maramarosh, Uhocha, the bulk of which is now part of the Ukrainian SSR (USJ 1913, pp. 10-11).

Empire adjusted for territorial changes following the Revolution and adding to them population estimates of the lands which were under Austria-Hungary before World War I (Table 4A.1). The estimates were made with the help of the methodology developed in Leasure and Lewis (1966). These authors estimated the population of various administrative political units in 1851, 1897 and 1926, which became part of nineteen major economic regions of the USSR as of 1961. They derived the population of individual territorial units for benchmark years by allocating to them identifiable urban centres (population 15,000 and over) and, assuming equal distribution of rural population throughout the area, estimating the rural population according to the territorial share of a given unit. Ralph S. Clem in his dissertation, "The Changing Geography of Soviet Nationalities and its Socio-Economic Correlates," Columbia University, 1976, using the same methodology and 1959 oblasts and ASSRs as political units, obtained results which are almost identical to the results of Leasure and Lewis (Clem, 1977).

Specifically, the boundary adjustments of the nine gubernias were derived in the following way. Population shares of individual gubernias in 1897 within the 1961 boundaries of the Ukrainian SSR, prepared by Leasure and Lewis, were applied to 1913 population figures for these gubernias under the not improbable assumption that these shares had remained unchanged. By the same token, Leasure and Lewis estimated the 1897 population of the regions of Galicia, Bukovyna and Hungary which were part of Ukraine in 1961. These estimates were then extrapolated to 1913 with the help of the

population growth rates of Ukrainian ethnic lands of these three regions between the 1900 and 1910 censuses.

Appendix 4.2

In this appendix the methodology and sources of estimation of the national income for Ukraine in 1913 within the boundaries of the 1961 Ukrainian SSR are described. This indicator is presented in Table 4A.2 for four territorial components: nine Ukrainian gubernias of Tsarist Russia (NG); East Galicia, part of the Austrian Galicia (EG); Bukovyna, part of Austrian Bukovyna (BU); and Transcarpathia, part of four Ukrainian *Munizipien* of Hungary (TR).

Most of the data were obtainable for the nine gubernias, while the majority of those for the latter three territorial units were derived indirectly. Thus the national income estimates for each of these three units and for their total are less reliable than the estimate for the nine gubernias. In order to increase the comparability of our estimates with those for the rest of the Empire, as prepared by Prokopovich, 1918, Prokopovich, 1931, and Falkus, 1968, our derivation followed closely the methodology of these authors. Their works should be consulted along with this appendix. Since to the best of our knowledge the present calculation of the 1913 national income for Ukraine is the first to be undertaken, and since the methodology and sources are less known and less available than those employed for the post-World War II period, our present description is more detailed than that for the 1970 and 1980 national incomes.

Selected basic information utilized in our calculations for Table 4A.2 is given in Table 4A.2A. The two upper lines show percentage distribution of population and area for the four territorial components of the 1961 Ukrainian SSR boundaries in 1913. The next two lines are particularly important. They represent the percentages of these components in the larger territorial entities of which they were part before World War I. These percentages serve as a basis for allocation to the Ukrainian national income of a number of variables for which data are available only for the larger entities. The remaining part of the table, ordered according to line numbers in Table 4A.2, represents several variables derived in this manner. Lines 2, 3, 4, 6 and 7 were derived on the basis of population distribution, and lines 15 and 20 on the basis of area distribution.

TABLE 4A.2. National Income in 1913 (thousand rubles)

Line	Nine Gubernias GMP	Depreciation (Percent)	Nine Gubernias NMP	Nine Gubernias NMP adjusted x 1.012	East Galicia GMP	Bukovyna GMP	Transcarpathia GMP	Total Western Ukraine GMP	Western Ukraine NMP	Ukraine (1961 Boundaries) NMP
1 Field Crops	1,381,651				110,506	12,750	10,467			
2 Horsebreeding	4,789				485	32	28			
3 Milk Products	128,539				40,545	2,296	4,775			
4 Meat from Horned Animals	73,934				14,602	1,130	1,773			
5 Skins and Hides	9,477				1,335	143	198			
6 Sheep Farming (incl. meat)	31,033				1,016	441	723			
7 Pigbreeding	109,662				26,632	2,694	3,182			
8 Livestock and Animal Products	357,434				84,615	6,736	10,679			
9 Hay and Straw	8,250				1,343	105	201			
10 Viticulture	6,107						14			
11 Horticulture and Market Gardening	111,783				18,263	1,496	2,748			
12 Beekeeping	4,514				21	41	75			
13 Other Agriculture	130,654				19,627	1,642	3,038			
14 Agriculture	1,869,739	3.6	1,802,428	1,824,057	214,748	21,128	24,184	260,060	250,698	2,074,755
15 Forestry	4,111		4,111	4,160	5,182	869	2,324	8,375	8,375	12,535
16 Fishing and Hunting	3,251		3,251	3,290	526	43	79	648	648	3,938
17 Industry, Large	755,217	9.4	684,227	692,438	95,855	7,810	14,201	117,866	106,787	799,225
18 Industry, Small	158,320	2.6	154,204	156,054	25,627	2,088	3,797	31,512	30,693	186,747
19 Construction	182,783	9.4	165,601	167,588	29,587	2,411	4,383	36,381	32,961	200,549
20 Railroads	128,180	11.5	113,439		28,245	3,142	5,850	37,237	32,955	
21 River Transport	10,896	5.0	10,351		1,047	106	274	1,427	1,356	
22 Sea Transport	42,562	5.0	40,434							
23 Transport	181,638		164,224	166,195	29,292	3,248	6,124	38,664	34,311	200,506
24 Communication	20,154		20,154	20,396	3,262	266	483	4,011	4,011	24,407
25 Trade	394,462		394,462	399,195	49,438	4,519	7,504	61,461	61,461	460,656
26 Total	3,569,675		3,392,662	3,433,373	453,517	42,382	63,079	558,978	529,945	3,963,318

TABLE 4A.2A. Selected Sources to Table 4A.2

	Nine Gubernias (Adjusted)	East Galicia	Bukovyna	Transcarpathia	Total
Percent within 1961 Boundaries of Ukrainian SSR in 1913:					
Population	83.4	13.5	1.1	2.0	100.0
Area	88.7	8.3	0.8	2.2	100.0
Percent of Four Components of the 1961 Ukrainian SSR within 1913 Boundaries of Nine Gubernias, Total Galicia, Total Bukovyna, Four <i>Munizipien</i> (Berehovo, Uzhhorod, Maramarosh, Uhocha):					
Population	101.2	62.9	53.2	90.1	
Area	103.3	63.1	48.2	72.4	
Line 2. Horses (thous.)	5,623.3	569.8	37.3	32.6	
Line 3. Cows (thous.)	3,173.8	1,001.1	56.7	117.9	
Line 4. Horned animals (thous.)	7,742.5	1,575.7	121.2	185.5	
Line 6. Sheep and Goats (thous.)	7,331.7	237.9	102.6	168.6	
Line 7. Pigs (thous.)	4,754.9	1,154.8	116.8	138.0	
Line 15. Utilized forest (thous. desiatina (1 desiatina = 1.0925 ha))	913.5	1,151.6	193.1	415.0	
Line 20. Railroad tracks (km.)	11,831	2,607	290	540	

Sources for Table 4A.2A: Population and area, Leasure and Lewis, 1966, Table A.1.

Lines 2-7. NG: Oganovsky, 1923, pp. 207, 209-10, 240-43. The data refer to the 1916 census, except Volhynia gubernia for which the data for 1917 are given. EG and BU: OSH 1913, pp. 96-97, refer to 1910 census. TR: USJ 1912, pp. 131-33, refer to 1911 census.

Line 15. NG: TsSK 1913, pp. 102-104. EG and BU: OSH, 1913, p. 93, available only for 1910. TR: USJ 1913, pp. 108-109.

Sources for Table 4A.2

The following explanation of methodology and sources of estimates will be according to line numbers in this table.

Line 1. NG: The following crops are included: winter and summer rye, winter and summer wheat, oats, barley, spelt, buckwheat, millet, maize, peas, lentils, beans, potatoes, flax seed and fiber, hemp seeds and fiber, tobacco, sunflower oil, sugar beets, hops, rapeseed. Gross output for the first 17 crops and net output data for the remaining 6 crops, SGZZA, 1915, pp. 15–19. Ratios of net to gross output and prices, Falkus, 1968, p. 64, Table 7. Following Falkus, 1968, p. 65; Prokopovich, 1918, p. 7, the total was raised by 10 percent to adjust for underreporting. EG: Area share applied to gross output for total Galicia, OSH 1913, pp. 78–85. Net-to-gross output ratios and prices as above. Total raised by 10 percent. BU: the same as for EG. In view of the lack of output data for spelt, hops and millet, the value for BU increased by the percentage of these crops in the total value of field crops for NG. Total raised by 10 percent. TR: Area share applied to the output of four *Munizipien*, USJ 1913, pp. 131–33. Net-to-gross output ratios and prices as above. In view of the absence of output data for spelt, hops, millet, buckwheat, flax seeds and fiber, hemp seeds and fiber, leguminous crops and rapeseed, the value for TR increased by the percentage of these crops in total output value for NG. Total raised by 10 percent.

Line 2. Following Prokopovich, 1918, p. 34, 6.6 percent of all horses were sold at 130 rubles. This proportion and price used for NG, EG, BU, TR.

Line 3. According to Prokopovich, 1918, p. 25, 90 percent of all cows were giving 75 buckets of milk (one bucket = 21 pints) each at 60 kopecks per bucket. Applied to NG, EG, BU, TR.

Line 4. Proportions between slaughtered large animals, less-than-one-year-old calves, and calves between one and two years (Prokopovich, 1918, p. 37), on the one hand, and total horned animals (Oganovsky, 1923, pp. 262–63; TsSK 1913, p. vii, pp. 45–46), on the other, 12.7, 7.3 and 9.3 percent, respectively, applied to NG, EG, BU, TR. Following Prokopovich, the assumption is made that the average weight of animals is ten poods (one pood = 36.11 lb) at 5 rubles per pood, and of calves, 1.75 poods at 6 rubles. Consumption of the rural population is estimated at 3 pounds per capita. The rural population for NG is derived by applying the share of rural in total population on 1 January 1914, 84.98 percent (Rashin, 1956, p. 101, Table 57), to the average population in 1913 (Table A.1). This percentage is also applied to the 1913 population of EG, BU, TR.

Line 5. Following Prokopovich, 1918, p. 38, for NG, employment of 3,320 workers in hides-and-skins industry in 1897 (TsSK, 1906, pp. 22–24) is extrapolated on the basis of growth of the total population between 1897 and 1913 (Rashin, 1956, p. 44, Table 19; Table A.1), and multiplied by the average output per worker of 2,076 rubles. Estimates for EG, BU, TR were

derived in proportion between their total number of livestock and that in NG.

Line 6. Using data from SGZZ, 1915, pp. 236–37, the proportions of ordinary and merino sheep in NG, 6,719.8 and 611.9 thousand, respectively, are established. Then ratios of slaughtered to total animals—for ordinary, 35 percent and merino, 18 percent (Prokopovich, 1918, pp. 39–40)—are applied. It is assumed that each animal supplies 0.12 poods of bacon at 6.66 rubles and 1.13 poods of meat at 4.77 rubles. In addition, 75 percent of merino sheep yield 5 pounds of bristles at 13.90 rubles per pood, and 75 percent of ordinary sheep 8 pounds of bristles at 11.45 pood. The same procedure is applied to EG, BU, TR, except that all sheep are assumed to be ordinary. Sheepskins are taken from animals which have been slaughtered or have died, 10 percent of the total herd, and are valued at 2 rubles.

Line 7. Following Prokopovich, 1918, pp. 40–41, it is assumed that 50 percent of the herd is slaughtered, each animal giving 3 poods each of meat and bacon at 5.97 and 8.76 rubles, respectively, and 1.25 pounds of bristles at 55.89 rubles per pood. The same methodology is used for all four provinces.

Line 8. Sums of Lines 2–7.

Line 9. Prokopovich, 1918, p. 42, and Falkus, 1968, p. 66, estimate the number of army horses (221,226) and urban horses (562,376). For NG they are assumed to be in proportion to the total and urban population, respectively, for 50 European provinces of the Empire. Each horse consumed 90 poods of hay at 45 kopecks and 40 poods of straw at 27 kopecks. Estimates for EG, BU and TR were derived proportionally, in accordance with figures for NG.

Line 10. Oganovsky, 1923, p. 281, shows 1910 output of grapes in NG as 3.571 million poods at 171 kopecks per pood (Prokopovich, 1918, p. 42). There are data for TR showing 75 hectares under cultivation (USJ 1913, pp. 93–94). The yield of Tavria (169 poods per desiatina) and prices for NG are then used.

Line 11. The estimate of Prokopovich, 1918, p. 43, 3.47 rubles per capita, is used for all four Ukrainian provinces.

Line 12. Using Prokopovich, 1918, p. 43, price of 6.94 rubles per pood of honey and 18.32 rubles per pood of wax.

Output (poods)	Honey (thous.)	Wax (thous.)
NG for 1910 (Oganovsky, 1923, pp. 284–85)	502.3	56.1
EG (OSH 1913, p. 99)	1,706	511
TR (USJ 1913, p. 146)	8,669	836

Since there are no data for BU, output of TR are allocated in proportion to population.

Line 13. Sum of Lines 9–12.

Line 14. Sum of Lines 1, 8, 13.

Line 15. Income per desiatina (Prokopovich, 1918, p. 45) applied to Ukraine's four provinces. Utilized forest for EG, BU and TR derived on the basis of their shares in the total area of their larger political units.

Line 16. Feshchenko-Chopivsky, 1922, p. 75, gives the share of NG in the Empire's fishing as 1.4 percent. This is applied to value for the Empire, 168 million rubles (Falkus, 1968, p. 68). One percent of 89.9 million rubles for the Empire is assigned arbitrarily in the case of hunting. Estimates for EG, BU, TR are derived in proportion to the population.

Line 17. Gross output, 1,691 million rubles, Gosplan, 1927, pp. 238–39. TsSU 1926, p. 14, gives distribution between extractive and processing industries, as 20.03 and 79.97 percent respectively in 1912, which is then applied to gross output in 1913. Using ratios between net and gross output for these two groups, 47.3 and 44.0 percent respectively (Falkus, 1968, pp. 68–69), net output is obtained.

EG, BU, TR: Koretsky and Palamarchuk, 1967, p. 66, Table 10, estimate average gross output of large-scale industry in Western Ukraine for 1908–10 as 13.5 percent of the output of entire Ukraine. They base their estimate on employment. The figure for the total Western Ukraine, 117,866 thousand rubles, is obtained by applying Koretsky and Palamarchuk's percentage to the data for NG. The result is then distributed among EG, BU, TR in proportion to total population.

Line 18. NG: Gosplan, 1927, pp. 238–39, gives gross output as 279 million rubles. Applying Falkus, 1968, p. 70, net-to-gross output ratios of 36.8 percent, and following Adam Kaufman, the total is raised by 54.2 percent which is then allocated to EG, BU, TR in proportion to population.

Line 19. Falkus 1968, p. 71, obtained the output of construction by multiplying the number of workers in this sector by the average output per worker. The ratio of the number of workers in NG and the Empire in 1897, 47,472 and 268,808 respectively (TsSK, 1906, pp. 79–80) is applied to the Empire's net value, 1,035 million rubles. This estimate is then allocated to EG, BU, TR in proportion to population.

Line 20. TsSU, 1926, p. 60, gives the net value for NG. It is allocated to EG, BU, TR in proportion to the length of railroad trucks.

Line 21. MPS, 1912, p. 27, gives the data on the tonnage of freight arriving and leaving on the rivers of European Russia in 1910. The total for Ukrainian rivers (Dnieper, Buh, and Dniester) amounts to 12.0 percent. This percentage is applied to the income of this sector (Prokopovich, 1918, p. 60), which is then allocated to EG, BU, TR in proportion to area.

Line 22. According to Feshchenko-Chopivsky, 1922, p. 126, Ukrainian ports on Black and Azov Seas accounted for 38.9 percent of net tonnage of European Russia's ports. This percentage is applied to Prokopovich, 1918, pp.

60–61, data.

Line 23. TsSU 1926, p. 120; allocated to EG, BU, TR in proportion to population.

Line 25. Following Falkus, 1968, p. 72, 12 percent of the following magnitudes: 50 percent of net value of output of wheat, oats, spelt, buckwheat, barley, millet, maize; 20 percent of rye; 25 percent of remaining field crops, other agricultural output, and livestock production; gross output of large- and small-scale industries; and income in spirit trade. The last item was derived by applying the percentage of NG in such employment for the Empire 1897, 3,698 and 12,934 respectively (TsSK, 1906, p. 90) to the Empire's income from the Crown spirit monopoly, 50.8 million rubles (Falkus, 1968, p. 72). For EG, BU, TR the same methodology is used, except that income in spirit trade in NG is allocated in proportion to population of these provinces.

Line 26. Sum of Lines 14–19, 23–25.

Depreciation rates, Falkus, 1968, p. 73.

Appendix 4.3.

To compare revised national income for Ukraine in 1970 with that for the USSR, our calculation was patterned closely after work on the latter in CIA, 1975, and JEC, 1982. These works should be consulted with this appendix. Unlike various sources for the calculation of 1913 national income, these two sources are easily accessible. Therefore, we shall limit ourselves to outlining the sources and basic assumptions for our calculations.

TABLE 4A.3. National Income in 1970

	Industry	Agriculture	Transportation and Communication	Construction	Trade and Other Material Production Sectors	NMP	Services	Military	GNP
1. Average Annual Employment/thousands/	6,036	1,252	1,743	1,658	1,705	12,394	3,806		
2. Monthly Wages rubles/	130.1	95.7	116.9	135.0	88.0		98.6		
3. State Wage Bill (mill. rubles)	9,423	1,438	2,446	2,686	1,801	17,794	4,504		22,298
4. Adjustments	-3	+4	-39	+7	+5		+26		
5. Adjusted Wage Bill " "	9,420	1,442	2,407	2,693	1,806	17,768	4,530	659	22,957
6. Various Identified Incomes " "	492	75	126	141	94	928	65		993
7. Other Ident. Incomes " "		9,563				9,824	411	624	10,859
8. Unident. Money Incomes " "	615	94	157	176	118	1,160	296		1,456
9. Other and Imputed Incomes " "	1,107	9,732	283	578	212	11,912	772	624	13,308
10. Social Insurance Rate/percent/	6.1	4.4	5.3	6.1	5.5		5.4		
11. Social Insurance Deductions (mill. rubles)	575	409	128	164	99	1,375	245	47	1,667
12. Reported Profits " "	10,171	1,034	1,877	659	864	14,605	448		15,053
13. Bonuses " "	-434	-44	-80	-28	-37	-623	-19		-642
14. Other Net Income " "		1,798			251	2,049			2,049
15. Total Profits " "	9,737	2,788	1,797	631	1,078	16,031	429		16,460
16. Reported Depreciation " "	2,832	1,124	823	295	229	5,303	186		5,489
17. Adjustment for Consumer Cooperatives " "	17	1	3	3	56	77			
18. Adjustment for Housing " "	-135	-26	-39	-37	-33	-270	270		-77
19. Depreciation Net of Housing " "	2,714	1,099	784	261	252	5,110	456		5,566
20. GNP /mill. rubles/	23,553	15,470	5,399	4,327	3,447	52,196	6,432	1,330	59,958

Line 20. NG: TsSU, 1926, p. 58. EG and BU: OSH, 1913, p. 207. TR: USI 1913, p. 171.

Sources to Table 4A.3

Line 1. Narkhoz Ukraine 1975, p. 356. The following adjustments were made: forestry was included in agriculture and the residual between total employment and its branch distribution, considered to be other branches of material production, was included in trade.

Line 2. Narkhoz Ukraine 1975, p. 358. Transportation and communication employment weighted average.

Line 3. Line 1 multiplied by Line 2 multiplied by 12.

Line 4. Adjustments for repair and personal care from industry to services, JEC, 1982, Table D-8, were allocated to Ukraine in proportion to population and adjusted proportionately to the wage bill. Adjustments for transportation from transportation and communication were derived in the same manner and distributed to sectors of material production in proportion to the wage bill.

Line 5. Line 3 minus (plus) Line 4.

Line 6. Consists of (a) social-cultural and sports activities, administrative expenses of higher echelons, and education, 317.3 million rubles and (b) militarized guards and research, 674.3 million rubles. Both were allocated to Ukraine in proportion to population, JEC, 1982, Table D-10, and (a) distributed to all sectors and (b) to material production sectors in proportion to wage bill.

Line 7. Consists of identified incomes in (a) agriculture, (b) construction, and (c) services.

a. Identified incomes in agriculture consist of the following items: (1) Money wage payments by collective farms: (a) 93.6 percent of payments to collective farm members, 4.058 million rubles, CIA, 1975, p. 23; Narkhoz Ukraine 1972, p. 285. (b) Payments to 5/6 of all hired workers in agriculture, 75.5 million rubles, Narkhoz Ukraine 1972, p. 23; Narkhoz Ukraine 1972, p. 320. (3) Net income in kind: (a) Consumption in kind, 4,314 million rubles, CIA, 1975, pp. 24-25; Tables A-1, A-2, A-3; CIA, 1982, Tables D-1, D-10; TsSU, 1971, pp. 154-55, 204, 208-209, 212-13, 300-301, 308-309, 316-17, 531, 533, 534-35, 550-51, 552-53, 554-55, 620, 622, 623, 638-39; Narkhoz Ukraine 1972, pp. 275, 276, 319, 320. (b) Investment in kind, 124.0 million rubles, JEC, 1982, p. 128; TsSU, 1971, pp. 253, 261, 265, 273.

b. Identified incomes in construction consist of: (1) private earnings, 87.1 million rubles, and (2) imputed value of owner-supplied construction services, 184.3 million rubles, JEC, 1982, Tables D-1, D-10; Narkhoz 1972, p. 487; Narkhoz Ukraine 1972, p. 447.

c. Identified incomes in services consist of: (1) private earnings in housing repair, 167.0 million rubles and (2) imputed net rent in private urban housing and rural housing, 243.5 million rubles, JEC, 1982, Tables D-1, D-10; CIA,

1975, p. 41; Narkhoz 1970, p. 547; Narkhoz 1972, p. 487; Narkhoz Ukraine 1972, p. 447. Rural housing allocated to Ukraine proportionate to rural population.

Line 8. Such income for the USSR, JEC, 1982, D-1, was allocated to Ukraine proportionate to population and distributed in proportion to adjusted wage bill.

Line 9. Sum of Lines 6, 7, 8.

Line 10. JEC, 1982, Table D-12. For transportation and communication, trade and other material production branches, and services, rates are equal to wage bill weighted averages.

Line 11. Rates from Line 10 were applied to the adjusted wage bill. Agriculture in addition to social security deductions in state sector, 63.4 million rubles, includes: (a) collective farm payments into the All-Union Social Insurance Fund for Collective Farmers of 2.4 percent of total labour pay fund, 104.0 million rubles and (b) 4 percent of collective farms' gross income in 1969 of collective farm payments into the All-Union Social Security Fund for Collective Farmers, CIA, 1975, p. 46; Narkhoz Ukraine 1972, p. 285; Narkhoz Ukraine 1970, p. 271.

Line 12. Narkhoz Ukraine 1975, p. 507. In trade are included other material production branches and procurement; services include communal economy and other branches.

Line 13. Since the bonuses are included in the state wage bill, they are deducted here. Forty-three percent of enterprises' total incentive funds, CIA, 1975, p. 45; Narkhoz Ukraine 1975, p. 515 distributed in proportion to reported profits.

Line 14. This income (a) in agriculture refers to the sum of retained income and income taxes of collective farms, CIA, 1975, p. 45; JEC, 1982, D-15; and is allocated to Ukraine in proportion to other identified income in agriculture, (b) in trade and other material production it amounts to profits of consumer cooperatives, Narkhoz Ukraine 1975, p. 533.

Line 15. Line 12 minus Line 13 plus Line 14.

Line 16. Narkhoz Ukraine 1975, p. 175.

Line 17. Depreciation for consumer cooperatives was distributed among the material production sectors according to distribution in JEC, 1982, p. 155.

Line 18. Housing depreciation was allocated to Ukraine proportionate to all living space, JEC, 1982, Table, D-13, distributed proportionate to employment in state material production sectors and transferred from them to the service sector.

Line 19. Line 16 plus Line 17 minus Line 18.

Line 20. Sum of Lines 5, 9, 11, 15, 19.

Appendix 4.4

In this appendix the derivation of GNP for Ukraine in 1970 and 1980 using the methodology developed by Campbell, 1985, will be explained. It will be helpful to consult Campbell's work along with this appendix.

TABLE 4A.4 **National Income in 1970 and 1980**
(millions of rubles)

	1970	1980
1. Net Material Product	54,800	77,100
2. Wage Bill in Nonmaterial Production Sectors	4,868	9,022
3. Profits in Nonmaterial Production Sectors	585	534
4. Military Personnel	1,040	1,500
5. Imputed Rent on Private Housing	376	439
6. Depreciation	<u>3,521</u>	<u>10,161</u>
Gross National Product	65,190	98,756

SOURCE: See text, Appendix 4.4.

Sources of Table 4A.4:

Line 1. Narkhoz Ukraine, 1980, p. 246.

Line 2. 1970-Employment and wages, Narkhoz Ukraine 1970, pp. 379, 383, social insurance from Campbell, Table 3. Employment in nonproductive transportation and communication, following Campbell, is derived on the basis of the employment ratio of Group 1 (health, education, and science branches) and other nonproductive branches, including nonproductive transportation and communication (Narkhoz Ukraine 1970, p. 375). Employment in the latter, Group 3, is derived by subtracting employment in Group 2 (housing and municipal economy, credit and insurance, and government) from that in other nonproductive branches. The wage bill is as follows (millions of rubles): Group 1—3,531, Group 2—1,124, Group 3—213.

1980—Employment is derived by extrapolating growth rates between 1970 and 1975 by individual nonproductive branches (Narkhoz Ukraine 1975, p. 356). Wages from Narkhoz Ukraine 1980, p. 235. Employment in nonproductive transportation and communication is obtained in the same way as for 1970. The wage bill is as follows (millions of rubles): Group 1—6,183, Group 2—2,454, Group 3—385.

Line 3. Consists of profits in the municipal economy, not identified profits in the total profits, and nonproductive transportation and communication. The last item allocated from the total profits of transportation and communication proportionate to the employment in the nonproductive segment in the total employment of these two sectors (Narkhoz Ukraine 1980, p. 354).

Line 4. Twenty percent of the USSR estimate (Campbell, 1985, Table 7) allocated arbitrarily to Ukraine.

Line 5. Urban private housing in 1970 and 1980 and rural state and private housing in 1980 (end of the year) from Narkhoz Ukraine 1983, pp. 254, 255. Rural housing in 1970 derived by subtracting the housing introduced in 1971–80 from the 1980 data and attrition assumed to be 20 percent (Narkhoz Ukraine 1980, p. 251). Distribution between state and private rural housing in 1970 was assumed to be the same as in 1980. Following Campbell (Table 5), rural housing was reduced to 2/3 in order to adjust for inferior quality. The rent was equal to 1.47 rubles per square metre.

Line 6. The data for 1980 depreciation were extrapolated on the basis of growth rates between 1970 and 1977 (Narkhoz Ukraine 1977, p. 432). Ukraine's shares in fixed assets of kolkhozy in the USSR in 1970 and 1980 (Narkhoz 1969, p. 302; 1980, p. 213) were applied to Campbell's data (Table 6). Ukraine's share in total private housing of the USSR in 1980 (Narkhoz Ukraine 1983, pp. 254, 255; Narkhoz 1982, pp. 393, 394) were applied to Campbell's estimates for 1970 and 1980 (Table 6).

NOTES

1. Volhynia's population and other minor adjustments have been calculated on the basis of the methodology of Leasure and Lewis (1966) as described in Appendix A.1.
2. Good also discusses estimates by other authors of the national income per capita of the Austro-Hungarian provinces, including Galicia and Bukovyna.
3. For conversion of Austrian crowns into Russian rubles, we used Federal Reserve Bank rates of 1913, \$0.203 and \$0.515, respectively.
4. Private information from David Good.
5. Before World War I, Galicia was divided administratively into West and East regions. Bujak (1908) cites various data for the years 1900–1906 for East and West Galicia separately. However, a part of East Galicia (see enumerated *Bezirks* (counties) in Sources to Table 4A.1) is now a part of Poland, and the data for this part cannot be included in Ukraine within the present boundaries. In addition, Bujak covers years other than 1913. Unfortunately, his work is of no help to us.
6. For a recent discussion of this problem, see Campbell (1985), pp. 1–18.
7. The slowdown of the Ukrainian economy appears to have continued. According to a highranking Soviet official, the industrial output of Ukraine (apparently in 1986) had fallen below the preceding year (*The New York Times*, 24 March 1987, p. 8). With respect to agriculture, Ukraine which used to be a grain exporter has turned into a grain importer (*The New York Times*, 22 March 1987, p. 18).
8. For example, Polish gubernias accounted for 7.0 percent of the Empire's population in 1913, but produced 15.8 percent of total industrial output (bearing

- the excise tax) and employed 11.8 percent of all workers in 1911. See TsSK, 1913.
9. The 1913 NMP per capita in West Ukraine amounted to 81.7 rubles (Tables 4A.1, 4A.2) and to 114.3 rubles in the Empire (Falkus, p. 55, Table 2).
 10. For example, between 15 January 1959 and 1 January 1987, the population of the USSR increased 34.9 percent, while Ukraine's increase was 22.3 percent (Narkhoz 1986, p. 374).
 11. Narkhoz Ukraine 1986, p. 47; Narkhoz 1986, p. 100. On the other hand, the living space per capita was slightly higher in Ukraine than in the USSR; in the urban areas by 7.5 percent and in the rural areas by 21.2 percent at the end of 1986 (Narkhoz Ukraine 1986, pp. 228, 303; Narkhoz 1986, pp. 373, 517). This divergence may reflect the construction of less sturdy housing in Ukraine in view of its milder climate than in the Asiatic regions, the inferior construction, and an increase in private construction not included in the state fixed assets statistics.
 12. Changes in population welfare in Ukraine, as in all socialist countries, can be best demonstrated through the changes in consumption. On this, see Schroeder, 1977, Schroeder, 1981.
 13. Additional information on the calculations in Appendices 4A.1, 4A.2A, 4A.2, 4A.3 and 4A.4 can be obtained from the author.

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Part II

Economic Prerogatives

*A good slice of the world is ours;
Siberia, think!—too vast to cross!
Jails? People? Counting takes too long!
From the Moldavian to the Finn
Silence is held in every tongue...
All quite content...*

*Taras Shevchenko
(Translated by Vera Rich)*

Chapter 5

Economic Prerogatives (1950–75)

Introduction

Aside from the historical, there is also economic justification for the existence of the Ukrainian SSR as an administrative and political entity within the USSR. In the context of this paper, Ukraine, through its government, should be considered as a territorial node in the management structure of the Soviet economy. The purpose of this government is to serve as one of the intermediaries between the central leadership of the USSR in Moscow and the republic's productive system. Specifically, the Kiev authorities are expected to assist the Moscow leadership in imposing its preferences regarding resource allocation on the Ukrainian productive system, whose preferences may be different (cf. Campbell, 1966, p. 191). This function cannot be exercised as effectively by Moscow directly, because of political and efficiency limitations.

In order to perform this function, the republic receives targets from the central planners, disaggregates them, and assigns specific goals to individual enterprises directly or, more likely, through subordinated intermediate bodies. By the same token, the republic is required to aggregate production plans and input requirements for all its enterprises and to submit them to the top level of the hierarchy. Other very important functions of the republic authorities are to utilize all propaganda media for the achievement of plan goals, to render necessary assistance, and to control plan implementation. Since the efficient discharge of these responsibilities requires the republic authorities to make choices, they have some discretionary powers vested in them by the top leadership. (The terms "powers," "decision-making," "rights," "competences," and "prerogatives" will be used interchangeably in this paper.) Consistent with bureaucratic behavior, these republic authorities may strive to expand their

decision-making powers. On the other hand, the union leadership may be reluctant to countenance this beyond a certain point, for fear that the republic may substitute its own preferences for those of the leaders at the center.

The study of decision-making at the intermediate levels of the Soviet management system, including that of the republics, has been neglected by Western scholars, who emphasize the two extremes: the union and enterprise levels.¹ This omission is regrettable, not only because there is a lack of understanding of the economic role of the republics but also because the entire area of regional economics, for which the republics are basic subdivisions (Pavlenko, 1971, p.19), has not yet been adequately explored. The purpose of this study is to fill this gap partly by analyzing the changing prerogatives of Ukraine during the postwar period, specifically after 1950, when immediate postwar reconstruction was completed. The emphasis will be on the division of and relationship between the decision-making-powers of Ukraine's Council of Ministers—the republic's highest executive body—and the central organs in Moscow. The extent of the council's economic prerogatives has, as Aron Katsenelinboigen convincingly argued,² an important implication for political, social and cultural conditions in the republic. However, the discussion of this aspect is largely beyond the scope of this paper.

In addition to the introductory remarks, this paper consists of four parts. The first outlines the legal status of Ukraine and describes the attempts of some Ukrainian officials and economists to broaden the republic's competences in the macroeconomic sphere; in the second part, the changes in microeconomic decision-making by the Ukrainian government during the period under review are presented; the third part is devoted to a description of present-day prerogatives of the Ukrainian government, primarily in the planning area; and the last part offers some conclusions.

In order to facilitate subsequent discussion, the structure of Ukrainian economic administration, which, in essence, parallels that of the USSR, needs to be briefly described.³ The highest legislative body, the Supreme Soviet, in addition to passing various laws pertaining to the economy, is responsible for appointing and dismissing the chief economic administrators.⁴ The Council of Ministers, directly or through subordinate bodies, plans and manages the republic's economy. It consists of two categories of ministries and two categories of such central organs as committees and administrations: branch and functional. Branch ministries are responsible for enterprises belonging to an economic sector or to an industrial branch. Functional ministries are responsible for economic activities that extend across the entire economy.

The ministries (also committees and administrations) of the republic Council of Ministers can legally be of two types. Those over which the Council of Ministers has exclusive jurisdiction are referred to as "republic-subordinated ministries." The ministries that are under the dual subordination—of the Council of Ministers and of the ministry of the same

name in Moscow—are “union-republic ministries.” For example, the (republic) union-republic Ministry of Food Industry of the Ukrainian SSR is subordinated to the Ukrainian Council of Ministers and, at the same time, to the (union) union-republic Ministry of Food Industry of the USSR. However, some enterprises (usually of unionwide importance), while located and operating in a republic and belonging to such ministries, may be subordinated directly to a union-republic ministry of the USSR in Moscow. There are also enterprises in a republic that are subordinated to a “union ministry” in Moscow. The republic Council of Ministers has no jurisdiction over enterprises in the latter two cases. Within individual ministries there will be a number of departments (*glavki*) responsible for specific functions or subbranches.

The size of the Council of Ministers has varied according to Moscow’s general approach to the planning and management of the national economy. The number of ministries was relatively large during the branch system—before 1957 and after 1965—when individual industrial branches were represented in the Council of Ministers by their ministries. During the period of the territorial system (1957–65), industrial and construction ministries were liquidated and their enterprises were subordinated to the regional Councils of National Economy (*sovnarkhoz*), which were responsible to the Council of Ministers.

Legal Framework

Constitutional Prerogatives

A number of prerogatives usually exercised by independent states, including economic prerogatives, are not within the jurisdiction of Ukrainian authorities but of the authorities of the USSR. Yet the Ukrainian Constitution proclaims that the republic “exercises its power independently, maintaining its full sovereign rights” (*Konstytutsiia Ukraine*, 1972, art. 13). But, since the USSR itself is a sovereign state, we have a case where both the union and its constituent republics are said to have sovereignty.⁵ Various Soviet authors have tried to reconcile this apparent contradiction. Indeed, the extensive literature on the subject indicates the importance of this issue to the Soviet leadership in its policy toward the non-Russian nationalities.

Despite minor differences in interpretation, Soviet authors argue that the transfer of certain prerogatives by republics to the union does not reduce their sovereignty. According to them, sovereignty is inherent in the status of republics and cannot be decreased or increased. It can be strengthened over a period of time, a process that is supposedly taking place in the USSR (Manelis, 1968, p. 63). The number of competences exercised by a republic

can change over time, depending on the level of economic development, external and internal conditions, and other factors (Manelis, 1964, p. 21). The change in a republic's competences, however, allegedly does not influence its sovereignty for the following reasons (Lepeshkin, 1966, pp. 4-5; Pronska, pp. 11-12): distribution of competences between union and republic governments is preceded by mutual consultation and has beneficial results for both sides; certain competences are exclusive to republics and cannot be taken away by the union;⁶ republics, through their participation in union organs, share in the exercise of functions that are under union jurisdiction; and, in the case of dissatisfaction, the republics have the right to secede from the union according to Article 17 of the USSR Constitution.⁷

Such an interpretation of the relationship between sovereignty and prerogatives may be acceptable, in view of international experience. For example, member countries of the European Economic Community delegate some of their economic prerogatives to the authorities of that economic union. However, this interpretation is not entirely applicable to the USSR and its republics because, in practice, the prerogatives usually enjoyed by independent countries are concentrated in Moscow to such an extent that the republics are left with very few, and mainly nonessential, prerogatives. (All the states of the United States, not claiming any sovereignty, have far greater powers and are far more independent from the federal government than are the Soviet republics.) Any change in the division of competences between the union and the republic takes place at the initiative of the former. Finally, there is no practical mechanism by which a republic can, on its own initiative, regain any of the prerogatives from the central authorities. It is no wonder that objective scholars do not take "the sovereignty" of Soviet republics seriously.⁸ Even Soviet authors are forced to admit that this sovereignty is of a special, socialist kind (Manelis, 1964, p. 21). According to former Justice of the World Court V. Koretsky and Academician B. Babii (1967, p. 14): "Bourgeois ideology and its lackeys...are unable to comprehend and evaluate fairly the state relations among Soviet republics."

Soviet authors argue that the division of competences between the USSR and its republics is based on the principle of democratic centralism, as advanced by Lenin. With respect to republics, this concept is defined as "the combination of a single leadership, exercised from one center over the public life of all our country, with the broad initiative, independence, and free activity of union republics" (Pronska, 1973, p.10). More specifically, according to Lepeshkin (1966, pp. 7-11), the following factors should be taken into account in deciding which competences should be exercised by the union and which by the republic government: the objectives for which the USSR was created (economic and cultural development of the people, defense of the country, and free development of all nationalities); the importance to the union of individual economic sectors and industrial branches; and the

equality and strengthening of the sovereignty of each nationality on the basis of reconciling the interest of the USSR and the interests of a particular republic. Other writers assign equal importance to such factors as the level of economic development, the internal and external situation, the availability of skilled personnel in individual republics, and differential technological progress of individual branches located in the republic (Romanov, 1963, p. 41; Dosymebekov, 1974, pp. 36-39).

The problem with these formulations is that they are incomplete and imprecise. For example, should the economic competences of republics be increased or decreased, in view of their unquestionable economic progress? Or what effect do such external factors as periodic cold wars and detentes have on the extent of republic competences? Soviet jurists fail to discuss these relationships in specific terms; they simply list them. The study of the past zigzag distribution of decision-making powers between union and republics also fails to provide a clue to the relationship between this distribution and internal and external factors.

The pragmatic approach that a given economic function should be performed by whichever authority can perform it most efficiently is thought to be most reasonable (Pronska, 1973, p. 9). But here some technical and political problems arise. How does one evaluate efficiency in practice? Unfortunately, economic science cannot reliably calculate the cost and benefit of the transfer of decision-making from one level of government to another. Nor is it easy to reconcile the conflicts of interest between the union and a republic. The answer of Soviet authors to this problem is that the interest of the union takes precedence over that of the republic. Should the republic try to insist on priority for its own interest, the union has the power to enforce its will. Given this two-tiered structure of the USSR, competences within a republic can be exercised, according to Soviet writers, in three ways (Pronska, 1973, pp. 14-15): (1) in areas of unionwide importance, decision-making is exclusively in the hands of union organs; (2) a republic exercises functions in those areas that are strictly of republic importance or that are specific to a given republic because of its level of economic development, its geographic and natural conditions, and its historical and national characteristics; (3) in spheres in which the union and the republics have common interest, decision-making is exercised jointly by organs of both (union-republic organs).

The USSR Constitution reserves the following economic responsibilities for the union government (Konstitutsiia USSR, 1972, art. 14): foreign trade, on the basis of state monopoly; determination of economic plans of the USSR; approval of a single state budget for the USSR and reporting on its implementation; determination of taxes and receipts for union, republic and local budgets; management of banks and industrial and agricultural establishments and enterprises, as well as of commercial enterprises of union

subordination; general guidance of industry and construction of union-republic subordination; management of transportation and communication of union subordination; guidance of basic principles of utilization of land, mineral wealth, forests and water; formulation of basic principles in education and health care; organization of a single system of economic accounting; formulation of principles of labour legislation. These responsibilities of the USSR government are intended to assure the unity of state policy in the enumerated areas for the entire country (Raznatovsky, 1970, p. 50).

On the other hand, the Constitution of Ukraine enumerates the following areas of responsibility in economic affairs for the republic's government (Konstytutsiia Ukraine, 1972, art. 19): approval of the republic's economic plan; approval of the republic's budget and reporting on its implementation; determination, according to the laws of the USSR, of state and local taxes, assessments, and receipts other than taxes; guidance in the implementation of local budgets of oblasts; guidance in insurance and savings areas; management of industry and construction of union-republic subordination; management of banks and industrial, agricultural, and commercial enterprises and organizations of republic subordination; guidance of local industry; control and supervision of the management of enterprises of union subordination; formulation of rules for the exploitation of land, mineral wealth, forests and water; guidance of housing and municipal enterprises, housing construction, and planning of cities and other inhabited localities; construction of roads, guidance of transportation and communication of republic and local importance; labour legislation; guidance of social security matters; guidance of cultural-educational and scientific organizations and establishments in Ukraine, and management of cultural-educational and scientific organizations and establishments of republic importance; guidance of health care and management of health care establishments of republic importance.

Such a delineation of decision-making between the USSR and Ukraine is much too general and does not provide a clear guidance in practice. Moreover, important changes in the economic system require continuous constitutional amendments.⁹ The ad hoc resolutions of the Council of Ministers and laws passed by the Supreme Soviet of the USSR have not always resolved jurisdictional problems. For example, various functions that are now constitutionally under the jurisdiction of republic organs are exercised, in practice, by union organs and vice-versa (Shafir, 1968, pp. 45-56). As will be discussed in Part III, the overlapping of decision-making powers between the union and the republic is particularly confusing in economic activities under joint jurisdiction (union-republic ministries).

In 1967, to deal with the increasing confusion, the USSR Council of Ministers requested a legal commission to work out, in cooperation with various union organs and republic Councils of Ministers, a proposal streamlining, eliminating duplications, and codifying existing legislation (Resheniia, vol. VI,

1968, p. 525). To our knowledge, no such document has been published. Apparently the ambiguity and vagueness regarding the delineation of prerogatives is perpetuated intentionally. A similar view in the realm of criminal law is expressed by Leszek Kolakowski (1971, p. 41), a recognized authority on socialist regimes. The lack of legal clarity in economics, civil rights and other areas makes all human activity in socialist countries amenable to the manipulation and arbitrary decisions of the Communist party.

Tendencies to Expand Prerogatives

Decision-making in the areas of production, distribution and, to a lesser extent, consumption is exercised in the USSR by the state. Such decision-making can be split into the following elements (in Russian): *partiinoe rukovodstvo*, *planirovanie*, and *rukovodstvo* or *upravlenie*. Following Wellisz (1964, pp. 24 ff), they can be translated as "guidance," "planning," and "management," respectively.¹⁰ While there is agreement among Soviet authors that the function of *partiinoe rukovodstvo* includes both ideological guidance of economic development and basic macroeconomic decisions (Marchuk, 1964, pp. 35-36; Kozlova, 1967, p. 4), there is definitional ambiguity with respect to the other two concepts. Planning is sometimes considered to be a separate function and sometimes a part of management, particularly at the lower levels of the hierarchy (Rumiantsev and Eremin, 1967, p. 12). The function of plan execution is often called, interchangeably, guidance or management.¹¹ For the purpose of the present discussion it is sufficient to make a distinction between guidance, as defined, and planning and management, the latter corresponding to microeconomic decision-making.

A closer look at these functions should help us to understand the distribution of economic decision-making between the authorities in Moscow and Kiev. The Communist party of the Soviet Union considers its ultimate objective to be the construction of full-fledged Communism in the entire world. The more immediate goal is the construction of Communism in one country, the USSR. Its achievement depends above all, on the strengthening and expanding of the power of the party, which rests on a strong economy (Keizer, 1971, p. 24). For this reason, the maximization of economic growth within an intermediate time horizon is of overriding importance, superseding the objectives valued by the consumers, such as improvement in the standard of living, full employment, and economic equality (Wellisz, 1967, pp. 14 ff).

In view of the eschatological nature of the listed objectives, the party determines for the society the more immediate and specific goals and makes, for this purpose, the necessary macroeconomic decisions (distribution of national income between consumption and saving and between labour and non-labour resources, incomes of various labour groups, consumer products mix, sectoral and regional distribution of investment, organizational structure).

The function of translating these general party directives into comprehensive, consistent, and specific plans of action can be called planning in the strict sense. The implementation of plans is the responsibility of managers. In other words, the planners and managers at all levels of the economic hierarchy are responsible for micro-economic decision-making (Rumiantsev, 1966, p. 46).

It is obvious from the record that macro-economic decision-making has been exercised in the USSR by none but the top party leadership in Moscow. Even so, this guidance cannot be so complete as the leadership would like it to be. In many instances it is technically impossible to reach all levels of life. In other cases, the leadership may be indifferent as to whose preferences prevail, or the costs of imposing its preferences can sometimes be higher to the leadership than the benefits derived (Keizer, 1971, p. 184). Thus, in some small measure other levels of government and party in the USSR, including the leadership of Ukraine, as well as individual consumers, can pursue their own economic objectives.

Sometimes, however, Ukrainian authorities are dissatisfied with the macroeconomic decisions made in Moscow and would like to change them in their favor, or expand their own competences. Investment allocation, which is of obvious importance, is a case in point. According to samizdat (unofficial, unpublished) sources:

There is no doubt that the officials of the USSR Gosplan encounter major difficulties during the reconciliation of capital construction plans with the Gosplan and the Council of Ministers of the Ukrainian SSR. Ukrainian officials always persistently ask for the increase in allocation of investable funds basing these demands on the level of output which Ukraine contributes to the all-union fund. They bluntly say that they are being robbed.¹²

Among the reasons for such attempts on the part of the republic's officials are the following. A well-known practice of Soviet managers at all levels is to try to obtain maximum inputs, chiefly capital, in order to fulfill the assigned plans more easily. Every bureaucrat in any hierarchy is more comfortable with a larger budget. According to law, a small portion of allocated investment can be utilized by republics at their discretion. Republic leaders may be genuinely interested in increased employment and a higher standard of living for their countrymen, goals that can be achieved mainly through larger investment. In fact, according to the statements of recent emigrants from the USSR, nationalism is particularly strong among the Ukrainian planners and managers who have an intimate knowledge of the economic discrimination against their republic by Moscow.

Whatever the underlying reasons may have been, the following is a sample of demands for larger investments by Ukrainian leaders and economists. Immediately after World War II, at the session of the Supreme Soviet of the USSR in 1946, Ukrainian representatives were quite vocal in their demands

for funds to reconstruct their devastated republic.¹³ In more recent times, they have been preoccupied with the shortage of fuels and energy that can endanger any further growth of the Ukrainian economy. Demands for investment in this area were strongly expressed in 1966 by V.V. Shcherbytsky, at that time the chairman of the Council of Ministers and now the first secretary of the Communist party of Ukraine.¹⁴ They were echoed in 1971 by the then first secretary, P. Iu. Shelest.¹⁵ Economists have explicitly supported these request and argued that since the output of coal, the main source of energy in Ukraine, is not growing, its export to other republics and foreign countries will have to decrease and the supply of substitutes in Ukraine, mainly natural gas and oil, will have to be developed (Zurabov, 1970, pp. 12–13). It is claimed that not enough funds are being allocated to exploration for oil, although exploratory drilling in Ukraine is relatively cheap. Inadequacy of refining capacities has been particularly deplored (Gonta, 1967, p. 80).

Another reason for the demand for greater investment in Ukraine is unemployment and underemployment of the labour force, mainly in the western regions. The Ukrainians hope, unofficially, that greater development of industry in these regions will prevent migration of young people to other republics and, thus, their eventual denationalization there.¹⁶ Ukrainian economists support this demand by three efficiency arguments. In the first place, inadequate utilization of labour in less-developed regions that are well-endowed with mineral resources means the country will fail to reach maximum production capability (Persbyn and Palamarchuk, 1964, p. 26).

Second, the existing branch structure of Ukrainian industry is inefficient. Its capital-intensive branches, usually with large-scale plants, are well developed and located chiefly in the eastern regions, while labour-intensive branches are relatively weaker. The faster development of the latter would allow the dispersion of their usually small-scale plants throughout Ukraine and, thus, the absorption of unemployed labour (Velychko, 1970, pp. 69–71). But even some capital-intensive branches, for which appropriate conditions (labour, materials and market) exist in Ukraine, are inadequately developed. This applies primarily to the machine-building industry and, within it, to the automobile industry (Demydion and Kuhukalo, 1970, p. 13; Kovalenko et al., 1967, pp. 51–52). Finally, Ukrainian economists argue that the comparative productivity of capital is not taken into account in the distribution of investment among regions, especially between the Asiatic and European parts of the country. Ukraine should receive more than at present because, if all costs are accounted for and a time horizon shorter than infinity is considered, investment is more productive in this republic than in other parts of the USSR (Holubnychy, 1968, pp. 86–88).

Ukrainian leaders and economists have also pressed for larger allocations of industrial inputs to Ukraine by central authorities. For example,

Shcherbytsky asked the USSR Supreme Soviet for more of various inputs so that plant targets could be met by Ukraine (DSUP, November 1967, p. 7). In this respect, one economist warned that if additional lumber is not allocated to Ukraine, further irresponsible cutting of the Carpathian forests will result in ecological disaster (Hensiruk, 1968, p. 81). Voices were also raised against too much export from Ukraine of various commodities and investable funds. Shelest seems to have been particularly determined in his fight for better treatment of Ukraine. (This was probably one of the reasons for his demotion in 1972.)¹⁷ He protested against squeezing grain out of Ukraine in 1964, when Nikita Khrushchev demanded that this republic deliver one billion puds (16 million metric tons). (What Khrushchev was not able to achieve in 1964, Leonid Brezhnev achieved in 1973.) Shelest complained that the 1964 action would lead to bread lines in Ukraine.¹⁸ Also during Shelest's era, to show the drain of capital from Ukraine, economists calculated very carefully the budgetary relationship between Ukraine and the USSR for 1959–61 and convincingly demonstrated the sizable and persistent excess of payments from Ukraine to the USSR budget over Ukrainian receipts from Moscow (AN, 1963, Ch. 7).

With respect to the institutional framework, Shelest had the courage in 1965, at the demise of the *sovnarkhoz* system (under which the competences of Ukraine were somewhat increased), to praise that system for, in his opinion, its success in improving interbranch coordination, material and technical supply, and equipment maintenance. He even explicitly criticized the post-Khrushchev leadership for the wholesale condemnation of this period: "Some comrades are wrong when they excessively criticize *sovnarkhozy*. We should objectively evaluate phenomena in our life" (DSUP, December 1965, p. 3). In this, Shelest was joined by economists. For example, F. Khyliuk, (1966, p. 18) claimed that during the *sovnarkhoz* period, Ukrainian planning had been comprehensive and balanced, and had promoted the rapid growth of the republic's economy. S. Iampolsky (then Director of the Institute of Economics) (1966, p. 58) argued that the improved interbranch specialization of production during this period facilitated wide application of the most modern technology and advanced methods of management.

The centralization that followed the 1965 reforms evoked protests among Ukrainian officials and economists. For example, the Ukrainian minister of light industry claimed that it would be more efficient if he were given the right to make all decisions, except those relating to budget payments and product mix. Specifically, he felt that the powers of the union ministry of the same name to change the quarterly output plans for final output and the output plans for semifabricated products, and to determine the prices, should be turned over to him (DSUP, April 1967, pp. 4–6). With respect to price determination in general, a demand was made that this function in Ukraine should be exercised by the Ukrainian State Committee on Prices

(Nedashkivsky, 1970, p. 63).

Ukrainian officials also protested the takeover of certain industrial branches (such as oil drilling) by Moscow organs.¹⁹ They also demanded the return of others (such as gas processing) to the Kiev authorities (DSUP, July 1966, pp. 5-6). In the case of the machine-building industry, which has been completely under Moscow's jurisdiction since 1965, it was claimed that its various plants, mostly those producing consumer goods, are not working efficiently under new arrangements (DSUP, February 1969, pp. 8-9). Furthermore, it was argued that this branch, as well as some others, whose products serve to a great extent as inputs for the entire industry, should properly be subordinated to republic authorities rather than organized as union ministries. According to this proposal, the products of interbranch importance would be manufactured on a large scale in specialized republic ministries and wasteful, small-scale production of these inputs by individual branches for their use only would be prevented (cf. Khyliuk, 1967; Lebedynsky, 1968; Honcharenko et al., 1969). It is interesting to note that several Ukrainian economists and high officials (including two vice-chairmen of the Council of Ministers) spoke on this issue, that they used very similar arguments, and that they published their articles within a relatively short period of time (around 1968). These articles were published not only in Kiev but also in Moscow journals, apparently to exert greater pressure on central authorities. One gets a distinct impression that this discussion represented a concerted effort by Ukrainians to regain control over at least part of the machine-building industry.

Such open defense of the economic interests of Ukraine and of other republics²⁰ is only the tip of the iceberg. Most likely, much greater and more intensive struggle occurs within Gosplan and other offices, hidden from the general public. "Enterprises and organizations [and, as this writer was told, also republics] often send special representatives to Moscow and wherever is necessary, to argue, lobby, press, cajole, and bribe in order to get desired plans and supplies" (Katz, 1973, pp. 93-4).²¹ This bargaining process usually results in a compromise. But the influence of even the highest republic authorities on Moscow bureaucrats should not be overrated.²²

To implement its objectives, the leadership in Moscow would like to centralize both macroeconomic and microeconomic powers—that is, planning and management. However, economic and technical expediency forces the center to delegate some management powers in the microeconomic area to lower levels of the hierarchy. Through decentralization, the leadership also hopes to eliminate bureaucratic inefficiency and to stimulate at all levels the initiative that is dulled under the existing overcentralization. However, substantive decentralization would require the admission of a market for goods and resources. But since the market would interfere with the leadership's ideological and political objectives, such a reform is unlikely and, hence, the hope for less bureaucracy and more local initiative is not realistic

(Wiles, 1962, p. 138).

It is argued that the need for decentralization of macroeconomic and microeconomic decision-making is particularly great when the economy is sufficiently developed, production structure is complicated, structural changes are not radical, and further growth depends more on intensive rather than extensive use of resources (Keizer, 1971, p. 187). Regardless of how ripe these conditions may be in the USSR, a shift of macroeconomic decision-making from Moscow to republics can hardly be expected. On the other hand, there has been a continuous shift in microeconomic prerogatives between Moscow and Kiev. The next part of this paper will trace these shifts during the postwar period.

Changes in the Scope of Economic Decision-Making

The Period Before 1957

There are basically three possible ways in which economic decision-making powers can be transferred from union to republic levels: individual ministries can be changed from union to union-republic or from union-republic to republic-subordinated status; certain specific economic competences can be transferred from the Council of Ministers of the USSR to the Council of Ministers of republics; and the planning and management system can be changed from branch to regional. Of course these changes can also be made in the opposite direction. Since these three aspects of transfer of economic prerogatives between hierarchical levels are interrelated, they will be discussed in the order in which they were introduced during the period under review. This historical investigation can serve as a basis for presenting the relations between the center and a republic with the help of a formal mathematical model as was suggested by Aron Katsenelinboigen (at the above mentioned conference).

All three kinds of changes in Ukraine were an integral part of the reforms in the USSR. The reasons for the reforms were largely the same in Ukraine as in the entire country. They were widely discussed in the West and, hence, references to reasons for unionwide reforms will be made here only to provide a background for the reforms in Ukraine.²³

The economic prerogatives of Ukraine, like those of the other Soviet republics, were severely restricted during Stalin's rule. The union government directly planned and managed the most important sectors and industrial branches—all heavy industry, enterprises of light industry and the food industry of union importance, as well as special construction enterprises, most of transportation, communication, commerce, part of the municipal economy, and some parts of agriculture. Under Ukraine's jurisdiction were local industry,

industrial cooperatives, the remaining part of agriculture, motor vehicle transport, and social and cultural establishments (Khyliuk, 1966, p. 17). The ministerial system of economic planning and management contributed considerably to the weakness of republic governments and thus facilitated rigid centralization in Moscow. Under it, "the republican authorities were totally by-passed, the line of subordination stretching straight from the enterprise to the glavk of the appropriate ministry in Moscow, regardless of the republic in which the enterprise was located" (Nove, 1969, p. 69). As a result, no comprehensive plans for the Ukrainian economy were even prepared for the Fourth (1946–50) and Fifth (1951–55) Five-Year Plans (Urinson, 1963, p. 83).

The disadvantages of the ministerial system are well known to specialists in the USSR and in the West: the tendency toward empire-building by individual ministries and the centralization of decision-making at the top of the hierarchy, the lack of cooperation among ministries, unnecessarily long hauls and cross hauls of transport system, and the lack of complex development of regions, to mention just a few (Zasidannia, 1957, pp. 150–57). Soviet authors add that branch administration does not allow party organs at various levels of territorial government to participate effectively in the mobilization and better utilization of resources (Marchuk, 1964, p. 52). Centralized administration is inflexible, its decisions are often delayed, and local initiative is dampened. After Stalin's death, the new leaders decided to deal with the latter problem; they started to loosen the grip of central planners on the economy by transferring some of the economic power from Moscow to republic governments.

As a first step, a change in the status of various ministries was undertaken. The following union ministries were converted to union-republic subordination in Ukraine between 1954 and 1956: ferrous metals, coal, communication, and paper and wood processing (Marchuk, 1964, p. 43). Also most of the enterprises of such union-republic ministries as food, meat and dairy, fishing, procurements, light industry, textiles, construction materials, paper and wood processing, highway transport and highways, internal shipping, and public health were transferred to republic subordination. At the same time, the retail trade network and public catering enterprises were transferred to republics (P, June 3, 1956). Altogether, Ukraine took over almost 15,000 enterprises between 1954 and 1956 (Horbovaty, 1975, p. 84). As a result, at the beginning of 1957 almost all Ukrainian industry was planned and managed by twenty-five economic ministries in Kiev (Zasidannia, 1957, pp. 292–93).

Of considerable importance for the increase in the republics' planning and management competence was a 1955 resolution of the USSR Council of Ministers. ("Ob izmenenii poriadka gosudarstvennogo planirovaniia i finansirovaniia khoziaistva soiuznykh respublik," of May 4, 1955, in Resheniia, vol. IV, 1968, pp. 200–17.) The document is rather long (it

contains 112 separate provisions with several subprovisions), and because of space limitation cannot be reproduced or summarized here. Its most important features, which are still in force, as well as those of similar resolutions in other years, are included in the description of competences of republic governments in Part III. This resolution presents an astonishing picture of the lack of any power on the part of republics hitherto. It alleviated the situation somewhat in such areas as planning, investment, budget, labour and wages, and agriculture.

The Sovnarkhoz Period, 1957–65

In 1957 a radical reform, replacing the ministerial system with a regional system, was introduced by Khrushchev ("Zakon o dalneishem sovershenstvovanii organizatsii upravleniia promyshlennosti i stroitel'stvom," of May 10, 1957, in *Resheniia*, vol. IV, 1968, 343–47). There is a consensus among Western scholars that his purpose was not only to eliminate the previously mentioned inefficiencies but also to weaken the influence of other contenders for power in the central organs in Moscow and, at the same time, to strengthen his supporters in the republics (cf. Nove, 1969, p. 73; Armstrong, 1961, ch. 23). The reform dissolved existing union, union-republic, and republic-subordinated ministries in charge of industry and construction. Six union ministries (aviation, defense, radio, ship construction, chemical and electric power) were retained, but made responsible for research only. All the enterprises of liquidated ministries and industrial enterprises of noneconomic ministries were transferred to the jurisdiction of 104 *sovnarkhozy* created to manage industry and construction.

As a result of this reform, eleven union-republic ministries (construction of enterprises of coal industry, construction of enterprises of metallurgical and chemical industries, coal, light industry, timber, urban and rural construction, paper and wood processing, meat and dairy products, food, fishing, and ferrous metallurgy) and two republic-subordinated ministries (local and fuel, and municipal services) were liquidated in Ukraine. The construction and construction materials ministries were converted from union-republic to republic-subordinated status. In place of the liquidated ministries eleven *sovnarkhozy*—subordinated to the Council of Ministers—were organized in Ukraine (RU, May 11, 1957). Their number was increased to fourteen in 1960 (RU, May 19, 1960). Outside the *sovnarkhozy* and subordinated directly to the Ukrainian Council of Ministers were all sectors other than industry, with the exception of the local and cooperative industry (including some enterprises previously of republic subordination) under the jurisdiction of oblasts, and of the ministries of medium-machine building (nuclear energy), gas industry, international trade, sea, rail, and air transport, and transport construction, directly under the USSR Council of Ministers (Pawlik, 1968, pp. 44, 47).

Three agencies were attached to the Ukrainian Council of Ministers: Gosplan (Central Planning Committee), the State Scientific-Technical Committee, and TsSU (Central Statistical Administration). It is necessary to stress that these agencies were of republic subordination—that is, the corresponding union agencies could communicate with them, at least in theory, only through the USSR Council of Ministers and then through the Ukrainian Council of Ministers. The Ukrainian Gosplan became a particularly important body. It was made responsible for long-term and short-term planning, coordination of the work of the republic's sovnarkhozy, determination of their production structure, and control of plan fulfillment. It also was in charge of supply and sales planning and the supervision of relevant enterprises. Technological research and geographic distribution of industry for individual branches were under the jurisdiction of the respective branch departments of the USSR Gosplan (Efimov, 1957, p. 77). As a result of these broadened competences, the Ukrainian Gosplan was able to prepare, for the first time, comprehensive annual plans for the Ukrainian economy (excepting union-subordinated sectors and branches) for 1957 and 1958 (Urinson, 1963, pp. 85–86). The increase in importance of republic planning organs can be seen also from the fact that the number of indicators in the union plan (indicators assigned specifically to individual republics) decreased from 9,490 to 1,780 between 1953 and 1958 (Urinson, 1963, p. 86).

The 1957 reforms made the Ukrainian Council of Ministers a powerful organ. It could create sovnarkhozy, appoint their chairmen, deputy chairmen and council members, and determine their administrative structure. The Council supervised and controlled the work of sovnarkhozy, the decisions of which it could change and suspend. Finally, the chairman of the Ukrainian Council of Ministers became an ex-officio member of the USSR Council of Ministers.

Republic Gosplans were relatively successful in handling their increased responsibilities. According to Urinson (1961, p. 32), they were able to reconcile central planning and local initiative and also to prepare plans formulated successively from bottom to the top. But they were less successful in coordinating and controlling the work of the sovnarkhozy. Therefore, even before the next round of reforms at the end of 1962, administrative changes were introduced in Ukraine. The functions of coordination and control of the sovnarkhozy, and to some extent also of current planning, were taken over by the newly created Ukrainian Sovnarkhoz in 1960 (RU, August 8, 1960).²⁴ Within it were established fifteen branch subdivisions with the task of coordinating the work of individual industrial and construction branches of the sovnarkhozy, particularly research and development. The chairman of the Ukrainian Sovnarkhoz became a member of the Ukrainian Council of Ministers. This reform put the Ukrainian sovnarkhozy in dual subordination, to the Ukrainian Sovnarkhoz and to the Ukrainian Council of Ministers, the

former being the more important.

Considerable change was also introduced into the management of construction and of local industry before 1962. As mentioned earlier, at the time of the reform the Ministry of Construction and the Ministry of Construction Materials were converted from union-republic to republic-subordinated status. The former was made responsible for projects of republic and inter-sovnarkhoz importance, and the latter for research in this field. The State Committee for Construction and Architecture, until then responsible for research, was liquidated. Soon the Ministry of Construction Materials was also liquidated (in 1958). Its research function was transferred to the newly created Gosstroy (State Construction Committee) of Ukraine and its productive enterprises to the sovnarkhozy (RU, April 9, 1958). In order to provide some leadership in the construction sector, three of the fifteen subdivisions of the Ukrainian Sovnarkhoz were charged with this responsibility. The management of construction enterprises was taken completely away from the sovnarkhozy in 1963. Sovnarkhozy became the customers of the Main Administration of Construction established in each enlarged sovnarkhoz in order to supervise construction enterprises. The Administrations were subordinated to the newly created Ministry of Construction of Ukraine. The previously existing Ministry of Construction was converted into the Ministry of Installation and Special Construction Work (DSUP, July 1963; Marchuk, 1964, pp. 64–66).

Some changes were also introduced in local industry. Before 1957 the work of local industry was supervised jointly by the republic-subordinated Ministry of Local Industry and the oblasts. After the reform, supervision rested with the oblast authorities. In 1960 the industrial cooperatives were included in local industry. In order to coordinate the work of these enterprises, the Main Administration of Local Industry and Consumer Services of the Council of Ministers of Ukraine was organized (Marchuk, 1964, pp. 66–67). In the same year the Ministry of Municipal Services was resurrected (RU, July 22, 1960). In 1963 the enterprises of local industry were transferred under the management of the sovnarkhozy, while those of consumer services remained under the management of oblasts. To supervise the former, the Main Administration of Production of Cultural and Everyday Products of the Ukrainian Sovnarkhoz was organized, while consumer services were planned by the Main Administration of Consumer Services of the Ukrainian Council of Ministers (Marchuk, 1964, pp. 70–71).

In 1957 and 1959, two further resolutions significantly increased the competence of republic governments in various areas of economic life ("O dopolnitelnoi peredache nekotorykh voprosov khoziaistvennogo i kulturnogo stroitelstva na reshenie sovetov ministrov soiuznykh respublik," of August 29, 1957, in *Reshenia*, vol. IV, 1968, pp. 370–75; *Sobranie postanovlenii pravitel'stva SSSR*, 13/81/1959). These changes in the role of the republics required changes in the budgetary laws (Berdichevsky, 1960, p. 25). Their

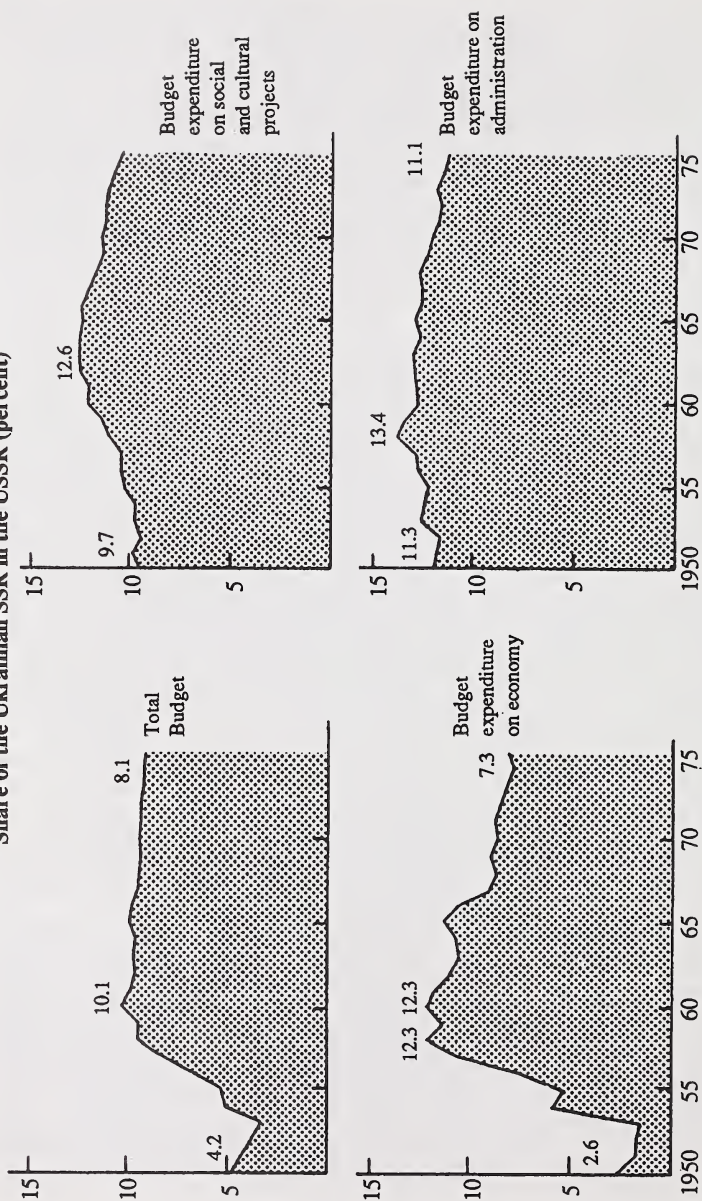
codification took place in 1959 and, together with the provisions of these resolutions, the changes will be summarized in Part III ("Zakon o biudzhethnykh pravakh Soiuzu SSR i soiuznykh respublik," of October 30, 1959, in *Resheniia*, vol. IV, 1968, pp. 616–25).

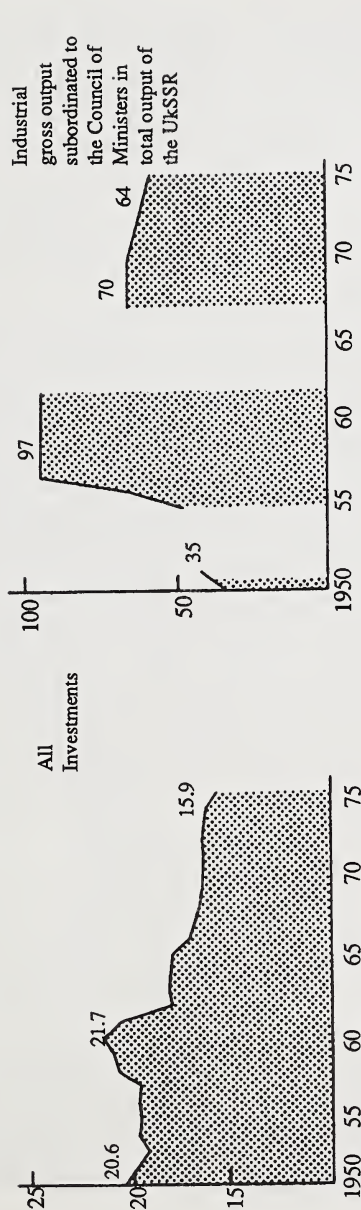
As a result of these resolutions, laws and reforms, the economic prerogatives of Ukraine reached a peak in 1960–62. Figure 5.1 shows that the shares of Ukraine in the USSR budget with respect to three main expenditure categories and in the total investment of the USSR and the share of the gross industrial output under the Council of Ministers' jurisdiction in the total output in Ukraine, were largest during this period. (Unfortunately, no other quantitative indicators of the role of the Council in national economy can be found.)

The enlarged economic prerogatives of the Ukrainian government have had wider implications.²⁵ The Ukrainian SSR was increasingly functioning as an economic entity within the USSR economy. Shortly after the 1957 reforms, an editorial in the official journal of the Communist Party of Ukraine called on the Ukrainian Gosplan to prepare comprehensive current and perspective plans for the entire Ukrainian economy, approaching it from a regional perspective, something that had not been done before (KU, 1958, no. 3, p. 14). It was suggested that such plans take into better account the needs and possibilities of the republic than had the previous plans, which were based on development plans of the individual branches (Urinson, 1961, p. 29). To do this planning effectively, estimates of national income for Ukraine were needed. As a result there appeared a competent monograph dealing with the national income of Ukraine, mentioned earlier. Economists started to stress the importance of Ukraine in the international trade of the USSR.²⁶ In addition, officials heading the international department of the Ukrainian Gosplan were identified for the first time (DSUP, March 1970, p. 15). Ukraine was visited by several economic delegations from foreign countries (DSUP, July 1960, pp. 7–8; DSUP, October 1960, pp. 20–21, especially on relations with countries in Asia and Africa). Finally, the republic began to participate separately from the USSR in various international fairs (DSUP, June 1958, p. 5; DSUP, February 1961, p. 24; DSUP, December 1961, pp. 20–21).

The greater assertiveness of Ukraine during this period was also felt outside the economic sphere, particularly with respect to foreign relations, science and the arts. In view of the lack of data for all years, the total budget expenditures of Ukraine do not include the repayment of government loans and the category called "other expenditures," both of which account for slightly more than 1 percent of the total. Although Ukraine was a founding member of the United Nations, it did not appoint its first permanent delegate to that body until 1958 (DSUP, July 1958, p. 24). The first secretary of the Communist Party of Ukraine, M.V. Pidhorny, represented the country in 1960 at the general session of the United Nations, where he delivered his speech in

Figure 5.1
Share of the Ukrainian SSR in the USSR (percent)





Sources to Figure 5.1

Note: In view of the lack of data for all years, the total budget expenditures of Ukraine do not include the repayment of government loans and the category called "other expenditures," both of which account for slightly more than 1 percent of the total.

Sources: Panels 1-4 (from the top) — MF, 1957, pp. 7, 16-18, 36-38; MF, 1962, pp. 18-19, 109-10; MF, 1966, pp. 20-21, 111-12; MF, 1972, pp. 25, 118-19; Narkhoz Ukraine 1973, p. 778; Narkhoz Ukraine 1973, p. 559; Narkhoz Ukraine 1964, p. 421; Narkhoz Ukraine 1973, p. 349; P, December 21, 1974; P, January 25, 1975; RU, December 26, 1974; RU, January 25, 1975.

Panel 5 - Narkhoz Ukraine 1975, p. 505; Narkhoz Ukraine 1975, p. 342.

Panel 6 - Khyliuk, 1967, p. 24; Mushketik, 1974, p. 10.

Ukrainian (DSUP, November 1960, pp. 1–2). In general, the foreign relations of Ukraine with other countries increased considerably during this period.²⁷ Internally, Ukraine witnessed a renaissance of its sciences and arts, particularly literature. Scholars and writers stressed the separateness and the historical continuity of their nation.²⁸ These developments were not simply the result of greater economic prerogatives of Ukraine but followed the decisions of Soviet leaders at the Twentieth Congress of the CPSU in 1956 to relax the Stalinist system and to meet, though only to a small degree, the aspirations of non-Russian nations. Enlargement of the economic prerogatives of the Ukrainian government and the assertiveness of the population in other spheres of national life reinforced each other.

However, this picture of considerable economic prerogatives for the Ukrainian government was clouded by old centralizing tendencies. The USSR Council of Ministers, according to the *sovnarkhoz* law, was only supposed to suspend the decisions of *sovnarkhozy*, but actually it issued orders directly to them.²⁹ The plans prepared by USSR Gosplan were too detailed for republics and thus limited the latter's flexibility (Urinson, 1965, pp. 29–30). Instead of using the route through the USSR Council of Ministers, the republic Council of Ministers, the republic Gosplan, and the *sovnarkhoz*, the USSR Gosplan often issued orders directly to the *sovnarkhoz* or even to an enterprise within the *sovnarkhoz*, if the enterprise was of unionwide importance (Pawlik, 1968, pp. 55, 93–94). The Central Administration of Intersovnarkhoz Material and Technical Supplies, an organ of the USSR Gosplan, was most guilty of centralizing tendencies (Furduev and Burnshtein, 1962, p. 44). Ukrainian officials complained, and demanded that this organ yield to *sovnarkhozy* the marketing, for example, of such important inputs as ferrous-metal products and timber (DSUP, June 1958, p. 10). They also demanded that in all dealings concerning Ukraine the Central Administration should communicate only with the republic's government (DSUP, June 1960, p. 14). However, despite the advice of Ukrainian officials and economists, more power was increasingly concentrated in the hands of this intersovnarkhoz administration.³⁰

The results of the 1957 reforms were mixed.³¹ On the positive side, they resulted in greater utilization of enterprises with a social overhead character,³² led to a decrease in transportation costs,³³ encouraged merging of small neighboring enterprises into larger ones, with resulting economies of scale,³⁴ and facilitated greater interbranch cooperation in research, development and solution of multibranch problems.

The disadvantages of the *sovnarkhoz* system (in Moscow's eyes) were several. *Sovnarkhozy* modified central investment plans to accord with their own interests. Some of the Ukrainian *sovnarkhozy* were responsive to the desires of the population, and allocated more funds to residential and municipal construction and, incidentally, paid higher wages than the central planners desired.³⁵ As might be expected, the accusation of "localism" was often heard.

It found its expression in the severing of long-established supply connections between enterprises located in different sovnarkhozy, and in using the output primarily for the sovnarkhoz's own needs. The reluctance of Ukrainian sovnarkhozy to ship their output outside the borders of their republic appears to have been strong.³⁶ Sometimes they decreased the output of commodities that were to be exported to other parts of the country.³⁷ Sovnarkhozy did not cooperate in research and development, and this resulted in duplication of these activities on a small scale. Finally, as the Polish economist Pawlik (1968, pp. 66-67, 138-39) observed, the sovnarkhoz system had another very important deficiency. It was not conducive to the transfer of investable funds from the western regions of the country, in which they were largely accumulated, to the Asiatic regions that the leaders wanted to develop.³⁸

As indicated earlier, the creation of several sovnarkhozy in the republics in 1960 was intended primarily to improve the coordination of the latter. Another measure with a similar objective was the 1961 division of the country into seventeen (later eighteen) large economic regions. In Ukraine three such regions were created: Donetsk-Dnieper, South Western, and Southern (DSUP, October 1961, pp. 14-16). In each of these a Coordination and Planning Committee was organized with the responsibilities implied by the name but without any implementing apparatus. Still another measure, which had already led to the re-centralization of decision-making in Moscow, was the increase in the number of branch committees with primary responsibility for research and development in individual branches. There were no corresponding organs in the republics. The official route of communication of the branch committee was through the USSR Council of Ministers, the Ukrainian Council of Ministers, the sovnarkhozy, and individual enterprises. But in practice, as in the case of other union bodies, they often circumvented these channels and issued orders directly to enterprises (Pawlik, 1968, p. 99).³⁹

The disadvantages of the sovnarkhoz system proved to be more significant than the advantages. Since most of these disadvantages were associated with the relatively small economic potential of individual sovnarkhozy, the purpose of the reforms in 1962-63 was the elimination of this deficiency through the enlargement of sovnarkhozy in the RSFSR, Kazakhstan and Ukraine, and through the transfer of powers from sovnarkhozy to republics, and from republics to union authorities. One can speculate that these three republics, which are relatively large and have well-developed and diversified economies, could have handled these problems within their borders, without losing some of their economic prerogatives.⁴⁰ However, the situation in the remaining twelve republics was different. Here the borders of sovnarkhozy coincided with the borders of republics. One possible solution could have been the merger of a few sovnarkhoz-republics into a larger sovnarkhoz. This was attempted in the case of four Central Asian republics and three Transcaucasian republics. But in view of political complications, this attempt was halfhearted

(Committee of the Judiciary, 1965, pp. 102–104). Another solution, actually implemented, was recentralizing some decision-making in the hands of union authorities. But since all the republics are legally equal, the decrease in powers of smaller republics had to be accompanied by the decrease in powers of the three largest republics.

At any rate, the reforms of 1962–63 considerably changed the economic prerogatives of Ukraine (RU, December 27, 1962). Its fourteen *sovnarkhozy* decreased by half. The Ukrainian *Sovnarkhoz* gained in power, mainly at the cost of the republic *Gosplan*, which retained only its responsibility for current and perspective planning. The Ukrainian *Sovnarkhoz* was supposed to coordinate and control the *sovnarkhozy*. Its competence with respect to coordination was extended not only to industry but also to such economic sectors as the supply of material and technical resources, trade, transportation, communication and consumer services. The responsibility of Coordination and Planning Committees of large regions was now limited to long-term planning under the Ukrainian *Gosplan*.

But the real effect of these reforms was the weakening of prerogatives of republic organs in Ukraine and in other republics. The USSR *Sovnarkhoz*, which was required to coordinate the work of *sovnarkhozy* supposedly through the republic *Sovnarkhozy*, was organized in Moscow ("O dalneishem uluchshenii organizatsii planirovaniia razvitiia narodnogo khoziaistva," of January 11, 1963, in *Resheniia*, vol. V, 1968, pp. 267–71). The republic *Sovnarkhozy* became union republic bodies as did the republic *Gosplans*, *Gosstroys*, and, in 1964, the republic State Committees for Coordination of Scientific and Research Work. The Ukrainian Academy of Sciences was also put under the supervision of the USSR Academy of Sciences and admonished to do a better job ("O merakh po uluchshenii deiatelnosti Akademii nauk SSSR i Akademii nauk soiuznykh respublik," in *Resheniia*, vol. V, 1968, pp. 304–9). Now the union authorities could communicate directly with their Kiev counterparts without going even as a formality through the Council of Ministers, obviously a considerable decrease in the power of the Ukrainian Council of Ministers. The increase in the number and responsibilities of branch committees at the union level was also of considerable importance. They were made responsible for establishing norms and standards, for the distribution of material and financial resources among enterprises in their branch, and for checking on the work of their enterprises. For this reason, the Ukrainian *Sovnarkhoz* and *sovnarkhozy* transferred construction and research establishments, experimentation bureaus, and specialized organizations for the introduction of new projects to the branch committees ("O povyshenii roli gosudarstvennykh komitetov i ikh otvestvennosti za razvitie otraslei promyshlennosti," in *Resheniia*, vol. V, 1968, pp. 267–71).

The system performed even less well as a result of these new reforms. According to the then Prime Minister Alexei Kosygin, it had several

deficiencies (P, September 28, 1965). First, a complicated and multi-level structure of decision-making resulted in unclearly defined and overlapping competences of various planning and management organs.⁴¹ (This was particularly true in the case of the relations between union and republics [Vishniakov, 1963, pp. 52–54]). Second, there was a lack of unity in the guidance of production, technological research and development, and economic decisions in individual branches of industry.⁴² Third, investment activity was not coordinated. One can add that the enlarged sovnarkhozy were completely divorced from administrative and Communist party organs, in order, according to Nikita Khrushchev, to combat localism (P, November 20, 1962). But it seems that the Soviet economy cannot function properly without “day-to-day-care” or, rather, prodding from these organs. The situation was aggravated by the split of the Communist Party at all levels into industrial and agricultural sectors (P, November 24, 1962). Finally, the continuous reforms, so much favored by Khrushchev, kept the entire economy in a state of uncertainty and instability.

The Period After 1965

After the downfall of Khrushchev his successors, not surprisingly, introduced a new reform in 1965. This amounted largely to a return to pre-1957 conditions. Sovnarkhozy and union and republic Sovnarkhozy, the Supreme Council of National Economy, and state branch committees were liquidated, and thirty industrial ministries (seventeen union and thirteen union-republic) were resurrected. The main idea of the reform was not only to transfer the decision-making powers from sovnarkhozy to these ministries, but also to assign these powers either upward to the ministries or downward to individual enterprises.

In Ukraine many changes took place (RU, October 24, 1965). Six union-republic ministries were already in existence (power and electrification, agriculture, installation and special construction work, commerce, communication, and finance), and seven were added (ferrous metals; coal industry; chemical industry; geology; lumber, celluloid, paper, and woodworking industry; building materials industry; and land reclamation and water resources). The ministry of local industry joined four existing republic-subordinated ministries (motor vehicle transport and highways; construction; municipal services; and social security). Also, the Main Administration for Material and Technical Supply (*Glavsnab*) was added to the existing state committees. The union-republic State Committee for Coordination of Scientific and Research Work was liquidated.

Since 1965, further administrative changes have taken place in the management structure of the Ukrainian economy, excluding the agricultural sector. In 1966 the union-republic Ministry of Forestry and the republic-subordinated

Ministry of Consumer Services were established (DSUP, June 1966, p. 29; DSUP, November 1966, p. 27). In 1967 the republic Ministry of Construction was split into two union-republic ministries: construction of heavy industry enterprises and industrial construction, and the republic State Committee of Utilization of Labour Reserves was established (VVR, 11/91/1967; VVR, 18/165/1967). In 1968 the union-republic Ministry of Timber, Celluloid, Paper and Wood Processing retained union-republic status but was renamed Ministry of Timber and Wood Processing, while the other two product groups were transferred to union subordination (VVR, 36/232/1968). In the same year the republic-subordinated Ministry of Motor Vehicle Transport and Highways was divided into two ministries of the same status: motor transport and construction and utilization of highways (VVR, 49/330/1968). In 1970 the union-republic State Committee for Prices was organized and the union-republic Ministry of Chemical Industry was liquidated, its enterprises becoming a part of the union ministry (VVR, 5/32/1970; VVR, 29/206/1970). In 1971 the Administration of the Petroleum Refining and Petrochemical Industry became the Main Administration, and in 1972 the Main Administration of Horticulture, Viticulture, and Wine Processing was established (VVR, 35/269/1971; VVR, 35/302/1972).

The preceding discussion concerned organizational changes in Ukrainian industry and construction. Changes in agriculture also took place during the postwar period, though to a smaller degree. An early post-Stalin resolution called for greater decentralization in the planning of agricultural deliveries. ("Ob izmenenii praktiki planirovaniia selskogo khoziaistva," in Resheniia, vol. IV, 1968, pp. 192-97). Instead of assigning production targets down to the raion (county) level, the USSR Gosplan was now required to assign only delivery targets to republics, and the latter had to disaggregate these plans. The republic Council of Ministers was also made responsible for aggregation of agricultural production plans and for presenting the result to the USSR Gosplan. Through various resolutions of the USSR Council of Ministers, the republic Council of Ministers obtained certain powers with respect to agriculture.

According to the 1957 reforms, the Ministry of Agriculture and the Ministry of Sovkhozy merged into the union-republic Ministry of Agriculture, with very limited responsibilities. The planning and supervision of these sectors was shifted to the Ukrainian Gosplan (RU, May 11, 1957). This ministry lost further powers in 1961, retaining only the responsibility for research. The distribution of inputs went to the Ukrainian Association for Sale of Agricultural Equipment and the Organization of Machinery Repairs and Utilization (*Ukrselkhoztekhnika*), procurement to the Ministry of Agricultural Procurement, and the control over state farms to the Main Administration of State Farms, all of republic subordination (DSUP, April 1961, pp. 22, 23). According to Marchuk (1964, p. 84), this framework did not provide

leadership in agriculture. Therefore, in 1962 the Ministry of Agricultural Procurement and the Main Administration of State Farms were merged into the republic-subordinated Ministry of Production and Procurement of Agricultural Products, which was made responsible for the supervision of the work of 190 (in 1963, the number increased to 250) (DSUP, January 1963, p. 5) newly created territorial production kolkhoz-sovkhoz associations. This agricultural structure was to be controlled by the Republic Committee for Agriculture, headed by the first secretary of the Communist Party of Ukraine (DSUP, May 1962, pp. 12–13, 23).

In agriculture, as in industry, the 1965 reforms meant basically a return to the pre-1957 system. The Republic Committee for Agriculture was disbanded, as were the territorial production associations. The lowest administrative unit for agriculture again became the raion (RU, November 21, 1964). The Ministry of Production and Procurement of Agricultural Products was incorporated into the union-republic Ministry of Agriculture, which was made responsible for planning and control of this sector (DSUP, May 1965, p. 28). The procurement function of the former was taken over by the republic-subordinated State Committee of Grain and Fodder Products. In 1969 the name was changed to the Ministry of Grain Products, and in 1970 it became a union-republic ministry (VVR, 7/58/1969; VVR, 1/6/1970). To supervise the work of sovkhozy in Ukraine, the republic-subordinated Ministry of Sovkhozy was organized in 1969; in 1973 it acquired union-republic status (VVR, 11/84/1969; VVR, 10/72/1973).

While the 1965 reforms curtailed the decision-making powers of republics, the stated objective of two resolutions issued in 1965 and 1967 was to expand these powers ("O peredache dopolnitelno na reshenie sovetov ministrov soiuznykh respublik voprosov khoziaistvennogo i kulturnogo stroitelstva," in *Resheniia*, vol. V, 1968, pp. 685–90 and vol. VI, pp. 517–25). But the significance of these resolutions on the issue of union versus republics should not be overestimated. Of much greater importance in Soviet life than any law is the "generalnaia liniia" of the Communist Party, the direction really preferred by the party leadership. And each official who has to make decisions knows perfectly well that the emphasis is now on the union, to the detriment of the republics.

The reforms of 1965 have not solved all the ills of the Soviet economy. For example, according to Leon Smolinski, a Western specialist of Soviet reforms (1974, pp. 29–30), three problems have become particularly acute in industry. First, despite the explicit intention to delegate more decision-making powers to individual enterprises, these powers are again centralized in the reconstituted ministries.⁴³ Second, each ministry again began to strive to become self-sufficient, and consequently became involved in the production of commodities outside its own branch. The resulting inefficient production on a small scale was unavoidable. Third, since ministries—and their administrative

subdivisions—are not constrained by any explicit optimizing criteria, they often give incorrect orders from the point of view of the entire economy.

The neglect of regional planning, as implied in the second problem, seems to be particularly important to Ukrainian officials and economists. In discussions of the 1965 reforms, they repeatedly stress Kosygin's statement, which accompanied the introduction of these reforms.⁴⁴ He said that "the industrial branch principle of management must be combined with the territorial principle, with the interbranch tasks of the integral development of the national economy as a whole and of the economies of the country's republics and regions, with expansion of the economic powers of the republics" (P, September 28, 1965).

It required little time, however, to show that the coexistence of these two planning approaches is hardly possible in the Soviet system. Branch planning immediately became dominant, as it had been before the *sovnarkhoz* system. According to the chairman of the USSR Gosplan, "[post-1965] territorial planning largely amounts to a mechanical compilation of more important targets for a republic or an economic region, derived in the process of preparation of plans for ministries" (P, October 1, 1968). At the same time the chairman of the Ukrainian Gosplan called for simultaneous preparation of branch and republic plans and greater cooperation between the USSR and republic Gosplans (EG, 1968, no. 22, pp. 11–12). The latter have experienced difficulties in preparing balanced plans for their republics, because plants located in their territory are subordinated to several central authorities that have proved not to be cooperative and that are not subject to jurisdiction of republics.⁴⁵ In general, Soviet specialists argue, the neglect of territorial planning is quite harmful to the performance of the entire economy (Shulman, 1967, p. 11).

To cope with these new—or, rather, revived—difficulties, still another reform was introduced in 1973 requiring the grouping of a few enterprises into production associations.⁴⁶ The associations acquired some powers previously held by enterprises and ministries, or by their *glavks*, which were to disappear by 1973 (Smolinski, 1974; Gorlin, 1974). Associations within union and USSR union-republic ministries are directly subordinated to these ministries, and associations within the republic union-republic and republic-subordinated ministries are subordinated to their ministries. Associations within republic union-republic ministries are under the operative leadership of the republic, while the USSR union-republic ministries should be responsible for such general problems as the development of the branch, technological progress, improvement in administration, and the study of demand (Drogichinsky, 1973, pp. 8–9, 16). In certain cases there is an additional management level above the production associations called an industrial association.

It has been emphasized by I. Raznatovsky, a Soviet jurist (1973, p. 58), that associations should include enterprises located in different administrative units (presumably also republics), should efficiency require it. On the other hand, F. Pavlenko, an economist, argues that since the cooperation and coordination between state and economic administrations is of vital importance for efficiency, associations would be most effective under Soviet conditions, if organized within an oblast or, at most, a republic.⁴⁷ Therefore, it seems that no decrease in republic prerogatives is likely to take place on this account. On the contrary, associations may eventually lead to the decentralization of decision-making from ministries to regional authorities. If an association comprises enterprises that previously belonged to more than one ministry, then the respective ministries will lose their power over these enterprises. Since under Soviet conditions some organ has to supervise associations, it is likely that such power may be vested in governments of oblasts and republics (Katsenelinboigen, 1975, p. 100). No such interministry associations yet exist in Ukraine, but the Soviet economist Horbovaty (1975, pp. 138–39) favors their organization and proposes that they be supervised by a special glavk subordinated to the Ukrainian Council of Ministers.

Prognosis

This brings us to reflections on the future distribution of decision-making between Kiev and Moscow. One important factor may be the greater use of computers in Soviet planning. Their net impact is, however, not obvious. According to a recent study, computerization initially leads to greater centralization in decision-making but, as Western experience shows, "the optimal satiation point for information hunger may be reached at the center, and decentralization may follow as with the law of diminishing returns" (Holubnychy, 1975, pp. 85–86). Since the USSR is not yet advanced in computer technology, one can assume that this point has not yet been reached; consequently, a trend toward greater centralization of the Soviet economy, at least for this reason, can be anticipated for some time to come.

The future of economic prerogatives of Ukraine and, for that matter, of any other problem in the USSR, is much more related to history—and especially to politics—than to economics and technology. Over the last three centuries a struggle has been going on between Russia and Ukraine. Russia has sought to russify Ukraine, as well as other non-Russian nationalities under its rule, and to integrate them permanently into the Russian empire. The Ukrainians, with the growth of their national consciousness, desired, of course, the creation of a sovereign state of their own. This struggle has carried into the twentieth century. Since neither of these two forces was strong enough to win decisively during the 1917–20 Revolution, the result was a compromise in the form of the Ukrainian SSR, which in theory is a sovereign state but in practice is

effectively dominated by Moscow (cf. Rudnysky, 1972).

This compromise is explained by Soviet dialecticians, for Ukraine as well as for other non-Russian nations, in the following terms. It is claimed that two tendencies exist among nations of the USSR. On the one hand, they "flourish" under the Soviet system by acquiring better features of culture from other nationalities. On the other, there is "rapprochement" among nations, the developing of common characteristics (Vardys, 1975, p. 33-34). In practice the latter tendency is equivalent to the russification of non-Russian nationalities. Since ethnic assimilation is an express objective of the regime, it has tried in the past to speed up this process through various centralizing policies. State intervention depended in the past on internal and external developments. It was strong during Stalin's period, but relatively weak in the 1920s and the second part of the 1950s. Since the announcement of the Party Program in 1961, the centralizing forces have again been in the ascendancy (P, November 2, 1961), though during most of the 1960s this tendency was rather subdued. It gained strength at the end of the 1960s and has been explicit since 1972. In his speech on the occasion of the fiftieth anniversary of the creation of the USSR, Leonid Brezhnev announced the existence of a new historical community of people, the Soviet people; urged the use of the Russian language by all; encouraged ethnically mixed marriages; and praised population migration as a means of achieving ethnically mixed regions (P, December 22, 1972). At the present time, an intensive russification campaign, under the euphemism of internationalization, is taking place in the non-Russian republics in all aspects of life.

The reforms of 1965 were an economic reflection of this trend. According to K. Diablo, a Soviet jurist (1973, p. 67), "They became a kind of catalyst for the expansion of competences of the organs of the USSR based on the principle of democratic centralism not only in the sector of industry, but also in the administrative-political and sociocultural sectors."⁴⁸ Good examples of this attitude are two articles by M. Urinson, a Soviet specialist in republic planning. In one article, written a few months before the reforms, he speaks of the need for improvement in planning the comprehensive development of the economies of individual republics (Urinson, 1965). In the other, written shortly after the introduction of the reforms, he stresses the need to subordinate republic economies to the objectives of the USSR economy as an integrated economic complex, and does not refer any more to republics as economic entities (Urinson, 1966, pp. 29, 31).

In view of such a changed attitude toward the economies of the republics, an article by V. Kistanov, a well-known regional economist (1972, p. 64) sounds ominous. In it he argues, using an appropriate quotation from Lenin, that the ethnic principle is not the only and most important criterion for division of administration and of economic management in the USSR. He believes that, in terms of efficiency, new regions with administrative and

economic powers can be organized within republics, or that the existing borders of republics can be modified regardless of the ethnic distribution of the population. If such reforms were to be introduced, some republics would cease to exist and the survival of their nationalities would be in jeopardy. Despite this potential threat, competent observers in the West believe that no such radical changes can be expected in the foreseeable future (cf. Rakowska-Harmstone, 1974, pp. 19-21; Hazard, 1975, pp. 229-30).

Prerogatives of the Ukrainian Government

Specific Powers

The economic prerogatives of Ukraine's Council of Ministers are defined in the Ukrainian Constitution as follows (Arts. 39-4). The Council of Ministers, subordinated to the Supreme Soviet of the Ukrainian SSR, issues resolutions and orders within the laws of the USSR and Ukraine and within the resolutions of the USSR Council of Ministers. It controls the implementation of these resolutions and orders. Other functions of the Council of Ministers are coordination and guidance of the work of Ukrainian ministries and other organs subordinated to it; coordination and control work done by representatives of union ministries and other union organs in Ukraine; implementation of economic plans and of republic and local budgets; and, when necessary, the organization of special committees and main administrations.

This formulation is not of much assistance for understanding the true prerogatives of the Ukrainian Council of Ministers. It is as vague as was the formulation of legal rights of Ukraine in general, discussed in Part 1. To understand what the Ukrainian government can and what it cannot do in economic matters it is necessary to study, in the context of Soviet conditions, various powers explicitly assigned to it in the resolutions of the USSR Council of Ministers, and also its role in the planning process. Let us start with the former problem.

The powers of a republic's government over each of three legal types of enterprises (union, union-republic, and republic-subordinated) vary. The republic Council of Ministers can review the output plans of union ministries' enterprises located in its territory (1965, 1) and the development, location and construction plans of enterprises subordinated to union industrial ministries (1965, 2).⁴⁹ On the basis of these plans, the council can make proposals to the relevant union authorities. These proposals should be helpful in the preparation of annual and perspective plans. The Council of Ministers can also allow, in consultation with the union authorities, the combining of investment funds of union ministries and republic ministries for construction of housing

and establishments for preschool children (1967, 2).

As noted, the Ukrainian Constitution also requires the republic Council of Ministers to control the work of union-subordinated enterprises, the success of which is important to a republic for three reasons. First, a part of the turnover taxes on products produced by any enterprise goes to the republic budget. (See the discussion of budget rights below.) Second, according to the law, up to 50 percent of the above-plan output of all enterprises located in a republic remains at the disposal of the republic. The exact percentage depends on the relationship between plans and performance and applies to the products on a list determined by the USSR Council of Ministers (1965, 3). Third, republic authorities are praised for the successful operation of union enterprises on their territory. However, all these competences of republic over union ministries are rather academic, since no laws regulate the relationship between union ministries and a republic (Dosymbekov, 1974, pp. 68–69). The union ministry may simply ignore suggestions beneficial to the republic, and the republic has no legal means to press its point further.

Republic-subordinated industry theoretically is entirely under the jurisdiction of republic authorities. This includes planning, material-technical supply, investments, labour and wages, control, and other matters. With respect to planning, the following are some of the most important prerogatives specified in the official documents: to change, in response to changes in demand during the duration of a plan, the composition and volume of consumer goods, excluding products to be exported to other republics, provided that there are no changes in payments to the budget (1959, 1); to approve plans for industrial output consumed entirely within a republic and to determine its product mix, while the USSR Gosplan ensures the necessary inputs (1965, 4); to allow ministries to change the output mix, planned by republics, with the agreement of users of this output (1967, 8). Republic organs have the right to determine technological norms and standards for production of processed food and other industrial consumer goods produced by republic-subordinated and union-republic ministries of a republic (Dosymbekov, 1974, p. 286). They are also responsible for organization of the material-technical supply for republic-subordinated ministries.

The situation with regard to the prerogatives of republics over their union-republic ministry is particularly complicated, even for Soviet legal conditions. The laws have very little to say about the division of powers in this case between the republic Council of Ministers and the USSR ministry of the same name. According to the USSR Constitution, Article 76, a USSR union-republic ministry guides a given branch, as a rule, through the republic ministry of the same name and directly manages only a limited number of enterprises, a list of which must be approved by the Presidium of the USSR Supreme Soviet. The Ukrainian Constitution, Article 51, states that a Ukrainian union-republic ministry guides a certain branch in subordination to

the Ukrainian Council of Ministers and to the USSR ministry of the same name. Not much more explicit is the General Charter of the USSR Ministries of 1967 ("Obshchee polozhenie o ministerstvakh SSSR," of July 10, 1967, in *Resheniia*, vol. VI, 1968, pp. 494–507). Article 6 repeats the provision of the Constitution in this regard; Article 7 adds that individual USSR and republic union-republic ministries jointly represent a system of the respective ministry; and Article 17 states that within the existing legislation a USSR minister issues orders and instructions to the republic union-republic ministry of the same name and supervises their implementation.

Obviously, such regulations are too general to provide adequate guidelines in practice. Soviet writers are not much help either. I. Raznatovsky (1970, p. 130), who tries to be more specific but offers no legal justification, argues that the responsibility of the USSR union-republic ministry to the republic ministry of the same name is limited to providing targets for perspective and annual plans, technological progress, and organization of labour; determination of norms of the use of raw materials and other resources; and control over the implementation of these plans. Remaining powers should be within the jurisdiction of the republic union-republic ministry. K. Kolibab (1968, pp. 18–19), another writer, believes that the powers of the USSR union-republic ministries over their republic counterparts are quite extensive, but should not go so far as to change the financial relation of the latter to the republic budget. However, most of the writers are satisfied simply with repeating the general statement that a USSR union-republic ministry provides general guidance for a particular industrial branch, while its republic union-republic ministry has direct operative production and economic functions (Malyshko, 1976, p. 115; Tuganbaev, 1969, p. 60).

In view of the lack of a general law that would regulate the republic union-republic ministries, their legal status varies from one ministry to another. For example, out of twenty-eight Ukrainian union-republic ministries in 1971, nineteen had individual charters issued to them by the Ukrainian Council of Ministers, while the rest operated without any legal document (Andzhyievsky and Kostiuchenko, 1971, pp. 58–59). Not surprisingly, the division of decision-making between the union and the republic was quite different among these ministries.⁵⁰ In general, it seems that the powers of USSR union-republic ministers over republic union-republic ministries are greater in heavy industry than in light industry (Baisalov and Levchenko, 1969, p. 72).

Soviet economists and officials are dissatisfied with this situation. Moreover, they fear that the lack of legal clarity may lead to the complete centralization of decision-making powers in Moscow-based ministries, as was the case before 1954 (Baisalov and Levchenko, 1969, p. 72). Therefore they urge the passing of legislation that would delineate "with legal precision (without declarative, diffuse formulations)" the extent of the rights of republic

union-republic ministries (Shabailov, 1968, p. 66; Shafir, 1968, pp. 127–28). Another jurist (Vishniakov, 1963, p. 52), speaking about a similar lack of such legislation in the early 1960s, demands that such delineation of powers between the union and local management levels should be clear and “not dodge the decision of this question under the cover of general phrases ‘jointly,’ ‘in cooperation,’ ‘in close contact,’ etc.” That officials are also concerned about the uncertainty of their powers is reflected in the following passage from an interview with the minister of the Ukrainian union-republic Ministry of Light Industry: “on the subject of ministerial rights and duties, it is high time to have this defined within the legal framework...we find ourselves in a situation similar to that which existed prior to 1957” (DSUP, April 1967, p. 5).

More recently another, more radical proposal has been advanced. It is being suggested, although only implicitly, that union-republic ministries of heavy industry be reorganized into union ministries and union-republic ministries of light industries into republic-subordinated industries (Pavlenko, 1971, pp. 197–98). In other words, union-republic ministries should be liquidated. The proposal is based on administrative experience as it has evolved during the postreform period. Various authors claim that now, in certain union-republic ministries of heavy industry, all decision-making power lies anyhow in the hands of USSR union-republic ministries that use their republic counterparts simply as a mailing address and often ignore them in the most important matters. On the other hand, in various union-republic ministries of light industry the competences of republic governments are not much different from those over republic-subordinated ministries (Pavlenko, 1971; Baisalov and Levchenko, 1969, p. 71; Tuganbaev, 1969, p. 62).

However, as the situation stands, the division of competences over union-republic ministries between union and republic is not clear and varies significantly from ministry to ministry. Very often these competences overlap. But if a USSR union-republic ministry wanted to take a certain decision-making power under its jurisdiction, the republic would be unable to resist and would have to surrender this power. Finally, should there be a difference of opinion between the two levels of Soviet bureaucracy, there is no doubt that the Moscow side would win.⁵¹

Let us now consider republic competences in investment, labour and wages, agriculture, and budget because these areas have a functional and specific (agriculture) importance for the entire economic life of Ukraine.

According to one study, the competences of a republic in investment are the following (Sadikov, 1972, pp. 18–19): to approve investment plans within the framework of the plans for the republic’s national economy (these plans comprise all sources of funds, including those of kolkhozy); to determine the order of approval of regional and city construction plans; to approve investment projects up to 2.5 million rubles and to determine their costs and

the process of construction and installation works if such union data are unavailable; to determine the order of approval of productive and nonproductive projects if the investment funds for them were to be allocated to the republic; to determine the price lists for housing and sociocultural construction; to determine the order of organization, reorganization, and liquidation of republic construction organizations; to approve plans for the supply of enterprises, regardless of subordination, with local construction materials; to determine the order of contracts for construction works in kolkhozy; to determine the order of receiving all finished socio-cultural projects and, in the case of productive projects, up to three million rubles. All these republic powers are also applicable to union enterprises in a given republic (Sadikov, 1972, p. 20).

In addition, official documents mention the following investment competences of republics with respect to the economic activity subordinated to the republic: to retain 5 percent of the total investment in the republic-subordinated economy as a reserve (1955, 16); to redistribute investment funds among productive objects (up to 5 percent) without change in construction plan (1965, 8); to allow the use of investment funds allocated for a project without regard to quarterly distribution of these funds (1967, 1); to allow the combining of funds of republic-subordinated and local enterprises for construction of housing and municipal projects (1967, 3); to use up to 2.5 percent of funds of productive investment for housing, subject to fulfillment of productive investment plans (1967, 4); and to transfer up to 10 percent of investment funds from projects underfulfilling their construction plans to projects overfulfilling the plans (1967, 5).

Although decision-making on wages and working conditions is essentially in the hands of union organs, the republics possess some limited powers over the republic-subordinated economy in this area. The most important such powers are the following: to determine employment distribution of graduates of institutions of higher education within a republic (1955, 4) (most likely, excluding the graduates from institutions maintained by union ministries); to retain 2 percent of the overall labour and wage fund allocated to the republic-subordinated economy as a reserve (1955, 7); to determine the structure of administrative personnel of republic-subordinated ministries, oblasts and other units (1957, 14); to determine the wage rates of faculty members and deans of institutions of higher education (1957, 33); to change the number of workers in a republic subordinated economy without change in wage fund and labour productivity plans (1959, 11); to change the quarterly wage fund up to 2 percent (1959, 12); in case of change in output of a given enterprise, to change the wage category of workers (1959, 15), managers, engineering-technical, and clerical personnel (1967, 20); to determine the labour plans for construction-projecting organizations within the overall labour plan of the republic (1967, 29); to determine the wage and bonus structure for

new enterprises, taking into account similar existing enterprises (1965, 32); to raise institutions of higher education from one wage group to another (1965, 35); and to increase the planned wage fund of workers of certain repair and consumer services (1967, 21).

As in the other cases, the competences assigned to republics in agriculture and forestry are very limited. The republic Council of Ministers has the power to ease financial obligations of kolkhozy (1955, 36, 37, 38); to allow organization, reorganization and liquidation of sovkhozy (1955, 57); to change the boundaries between neighboring kolkhozy (1955, 60); to settle questions connected with the use of land held by kolkhozy, sovkhozy and the state (1957, 23); and to allow agricultural enterprises to sell up to 3 percent of an increase in livestock to rural teachers, clerical personnel and others (1967, 38).

The rights of republics in budgetary matters are the following:⁵² the budget of the republic is approved by its Supreme Soviet (Konstytutsiia Ukraine, Article 80); in the case of change in USSR laws, any resulting deficit in the current budget of a republic will be covered and any surplus absorbed by the USSR budget (34); the receipts of republic budgets consist of a share of the profits of state enterprises, forest tax, income tax of kolkhozy, income tax of cooperative enterprises and social organizations, agricultural tax, 50 percent of the income tax on the republic's population, various smaller taxes in accordance with USSR legislation, a part of social security contributions needed for payment of pensions, a part of the turnover tax, and a part of other state incomes in accordance with the USSR legislation (35, 36); budget expenditures are divided into national economy, social and cultural measures, administration, and others (37); the republic is responsible for delineation of republic and local budgets (38); additional budget receipts must be used for the national economy and for social and cultural measures (41); the republic Supreme Soviet can increase the receipts and expenditures of the republic budget without changes in relation to the USSR budget (39); any budget surplus resulting from efficient management remains at the disposal of the republic Council of Ministers (42).

Other decision-making powers include retention of 5 percent of the total credit allocated to the republic as a reserve (1959, 3); allocation of credits from one republic-subordinated ministry to another (Dosymbekov, 1974, p. 293); permission for ministries to combine the above-plan profits of their enterprises for housing construction (1959, 8); permission to transfer certain fixed assets from one enterprise to another (1965, 25); and determination of many local prices.⁵³

The competences of the republic Councils of Ministers listed above are the most important among those that appeared in resolutions of the USSR government after Stalin's death.⁵⁴ Since during his rule the republics did not have any rights to speak of, these are the only ones they now possess. Numerous other prerogatives, which are not listed here but are usually

exercised by other socialist states, are in the hands of union organs in Moscow.

Obviously, it is rather difficult to give a complete picture of the decision-making powers of the republics on the basis of the preceding list. However, certain conclusions are justified. A republic Council of Ministers does not have any power over the substantial segment of the economy that is directly subordinated to Moscow. This fact has an important implication: enterprises and officials subordinated to Moscow enjoy extraterritorial status that doubtless weakens the power of the republic Council of Ministers. The competences of republics over their union-republic ministries are imprecise and vague, and seemingly can be overruled at any time by Moscow officials. Finally, the rights over a republic-subordinated economy are very detailed, so that there is very little room left for independent decisions by republics. But even these decisions can be made, in most cases, only "in consultation," "in agreement," "in coordination," or "jointly" with union authorities. What this means to the republic government needs no further elaboration. Moreover, these prerogatives can be taken away from a republic at any time, because the power to give and to claim such prerogatives is exclusively in the hands of the USSR government.

One power of republic authorities is real: the power to use all necessary propaganda, persuasion, and publicity to improve the performance of the republic's economy and to fulfill—or, better yet, to overfulfill—the plans. One need only look at the Kiev newspapers to see all the resolutions passed by the Ukrainian government and Communist party, and the speeches made by Ukrainian leaders to exhort their countrymen to greater effort. No detail is too small for their attention. A further analysis of this function of the Ukrainian government would take us too far from economics.

Planning Powers

The USSR and its republics prepare current (one-year), intermediate (five-year), and long-term economic plans.⁵⁵ Only the latter two are supposed to be of importance for territorial planning. The annual plans are supposed to serve as the tools for the implementation of the other two types of plans. Since the long-term plans have not been formulated and the intermediate plans contain only the basic indicators, the annual plans are of actual importance for regional development. Moreover, the interregional distribution of material and financial resources is specified in the annual plans. The following description, which deals primarily with annual planning, is presumably applicable to intermediate and long-term plans.

A republic prepares two types of annual plans: state plans for the development of the national economy and basic indicators of complex development. State plans include the economy subordinated to the republic Council of

Ministers (the economy of republic-subordinated ministries and of republic union-republic ministries). They have the power of law. Basic indicators refer to the entire economy located within a given republic, but they have no legal power.

The state plans for the development of the national economy of a republic are prepared in the following manner. The USSR Gosplan annually prepares output plans (control figures), identifies the amounts of available resources (limits), and then disaggregates them among republics and union ministries (cf. Nove, 1969, pp. 66 ff.). For republics these targets are divided into ten groups. The output targets and resource limits are disaggregated by republics among their ministries, intermediate organs, and, ultimately, enterprises. On the basis of the targets and limits, enterprises prepare their output plans and input requirements for the coming year. These are aggregated by the successively higher bodies. The republic Gosplan aggregates the plans for the republic and submits them to the USSR Gosplan. The USSR Gosplan reconciles these plans and presents them for the review before the USSR Council of Ministers. The final stage is approval of the plans by the USSR Supreme Soviet, which gives them the status of law. A few days later the plans for individual republics are approved by their Supreme Soviets. The formulation of plans by different levels of the economic hierarchy does not take place in isolation but in constant consultation, bargaining, and reconciliation of targets and inputs between higher and lower bodies.

The majority of the ten targets enumerated below are not assigned to republics by union authorities as single indicators, but as a large number of sub-targets that vary from year to year. The most important among them are the following:

1. Industry—the volume of finished and marketed production in wholesale prices of enterprises and, in the case of important products, also in physical units for each union-republic ministry separately and for republic-subordinated ministries combined (in 1975 there were 65 indicators in physical units for union-republic and 218 for republic-subordinated ministries).
2. Agriculture—the volume of sales of agricultural products and raw materials; the volume of deliveries of agricultural products and livestock feed to the state fund (or receipts from this fund); various indicators for soil improvement.
3. Forestry—improvement in forests.
4. Transportation and communication—river transport; truck transport; bus passengers; value and various indicators in physical units of communication services.
5. Capital construction (centralized and decentralized

sources)—introduction of production facilities, in physical units; value of introduced facilities; capital investment in constant prices.

6. Geological prospecting—by individual ministries and individual minerals.
7. Scientific-research and utilization of achievements of science and technology in national economy—various indicators with respect to the republic subordinated economy only.
8. Labour—wage fund; growth of labour productivity in local industry and agriculture; training and distribution of professional-technical personnel within the republic.
9. Finance—profits for republic-subordinated ministries, consumer services and sovkhozy.
10. Increase in standard of living—the following seven groups, with several subgroups: trade, consumer services, education, culture, health, housing, and municipal construction.

The targets for industrial and construction union-republic ministries and for the Ministry of Geology, State Committee for Forestry, and the Ministry of Procurements are allocated simultaneously to the republic Council of Ministers (for enterprises under their jurisdiction) and to the USSR union ministries in question. The targets for enterprises under republic jurisdiction of other economic and noneconomic (e.g., Ministry of Education, Public Health, etc.) union-republic ministries and, of course, of republic-subordinated ministries are allocated only to the republic Council of Ministers.

These instructions serve the republic authorities as a basis for the preparation of summary plans for the republic, administrative, and economic bodies, and for individual enterprises. They have the power of law.

Enterprises subordinated to union ministries do not submit their plans to republic organs but, through the intermediate bodies, to the ministries in Moscow. The latter, with the exception of defense industries, are required to inform the republic Council of Ministers about the output, location and development plans for their enterprises located in the republic. These plans are reviewed by republic organs, and the relevant proposals are submitted to the Council of Ministers and the Gosplan of the USSR. After final approval, the plans for union-subordinated plants in a republic are communicated to the republic's Council of Ministers. On the basis of these plans and plans for the economy under republic jurisdiction, the republic Gosplan prepares basic indicators of complex development.⁵⁶ These are comprehensive plans that comprise the entire economy of the republic, but they have no legal power. Their objective is to counterpose variables within the republic: for instance, incomes and supply of consumer goods, investment and supply of construction materials.

Because they can reveal the gaps between such variables, these plans are supposed to serve as a basis for the improvement of future state plans and plans of longer term. Because basic indicators are applicable to the entire economy located on the republic's territory, the targets for the economic sectors in which there are union-subordinated enterprises—industry, capital construction, labour and housing—differ from the targets for these sectors in the state plans for the republic. The targets for all other sectors are the same under both types of plans.

It is obvious that preparation of the latter plans by the republic Gosplan depends on the availability of information on the union-subordinated economy. But according to Soviet officials and writers, union ministries sometimes fail to supply such data, or supply them late and incompletely.⁵⁷ Therefore, in the absence of adequate data, the work of republic planning organs can hardly be effective and the basic indicators generated by them probably are not very important in Soviet planning.

This rather general description of planning in Ukraine should help us to answer two questions: What share of a republic's economy is planned by its own government? What freedom of action does a republic government have in planning? As indicated, the real importance lies with the state plans for the development of the national economy, in which only the enterprises for republic-subordinated and republic union-republic ministries are included, while the union-subordinated enterprises are excluded. The rough estimate of this writer is that the authorities of Ukraine plan, in the sense described in this paper, between 75 and 80 percent of its gross national product (Western methodology) at the present time.⁵⁸

The specific competences of Ukraine in the planning area can be discussed from the standpoint of preparation, approval and changes of plans. Let us consider each of them in turn.

The republic, being a level in the hierarchical structure of Soviet management, receives a number of targets from the central planners and then disaggregates and addresses them to subordinated bodies for implementation. The extent of received targets, or, alternatively, the degree to which a republic can make decisions on its own, could be regarded as an indicator of the republic's autonomy. Although precise quantification of such indicators is not feasible, the preceding discussion suggests that a republic receives indeed a very large number of them and that they are very detailed.⁵⁹ Moreover, the targets assigned for most of the union-republic economy are simultaneously assigned to the respective USSR ministries, so that the authority of republics is shared with Moscow.

But even in the case of the republic-subordinated sector, the responsibility of the republic is lessening. Several Soviet writers have recently claimed that, in view of the greater economic integration of the USSR, the planning of the segment of a republic's economy involves close cooperation between union

and republic organs (Bisher, 1973, p. 30; Malyshko, 1973, p. 116). This cooperation undoubtedly means the erosion of the remaining exclusive decision-making powers of republics. In a broader sense, this trend has very important political and constitutional implications. According to one author, the existence of exclusive competences of republics is an attribute of the federative structure of the USSR, and "If one assumes that union republics do not possess exclusive competences in the Soviet union state then the latter loses its federative character and becomes the usual unitary state, and union republics lose their status with the sovereignty inherent in it" (Lepeshkin, 1966, p. 5).

It seems that even if certain competences of republics are explicit under the letter of the law, this does not necessarily mean that they actually exercise these competences in practice. How, otherwise, can the following two statements, one by a competent jurist and the other by a competent economist, be interpreted?

The provision about the management of banks of republic importance by their (republic) organs should be excluded from the Constitutions of union republics because there are no such banks at present (Shafir, 1968, p. 113).

The Gosstroy of the Ukrainian SSR planned (according to a law) the subordinated activity of construction establishments, but in reality it did not perform these functions (Khyliuk, 1966, p. 18).⁶⁰

Certainly, with respect to the approval of plans, the claim of republic sovereignty is meaningless. The republic Council of Ministers approves the plans for the republic; but it has to submit them for reconciliation to Moscow, where, in the process of integration into the plans for the entire country, they can be, and are, changed. The approval of final plans by the republic Supreme Soviet is nothing but a rubber stamp of the approval of these plans by the USSR Supreme Soviet a few days earlier. The same is true for the approval of the republic's budget. Furthermore, although the plans for a republic have been approved by its highest legislative and executive bodies, they are often changed by Moscow while they are in effect (e.g., Baisalov and Levchenko, 1969, pp. 74-75). It follows that the powers of republic organs in the preparation, approval, and change of plans are, to say the least, rather limited, even for the part of the republic economy for which these organs are legally responsible.

Conclusions

The previous discussion justifies the following conclusions.⁶¹ Present prerogatives of Ukraine are greater than during Stalin's rule. However, the progress this represents cannot be described as a straight line, but as a zigzag one. Furthermore, the disparity between Ukraine's constitutional rights and its

practical domination by Moscow, as well as between the economic powers as specified by law and those actually exercised by the Ukrainian government, is so great that Western observers are often unable to perceive it. This is another attempt to perpetrate traditional Russian fraud (*ochkovteratelstvo*) upon public opinion in the West.

Anticipating the future is not easy. The need for greater economic efficiency may lead to some form of decentralization, including the transfer of certain decision-making powers from Moscow to Kiev. As with anything else in the USSR, this issue will be decided more on political than on economic grounds. On the one hand, the tradition of the Russian state and the nature of the Soviet system will press toward further centralization. But there are sufficient indications that various Ukrainian leaders have resisted this trend in the past and have attempted to expand their economic powers. There is no reason to believe that some of them would not continue to do so in the future, particularly if they could sense the support of the population. This can be explained not only by the usual bureaucratic behavior but also, no doubt, by the awareness of Ukrainian leaders that future political and cultural progress—or, indeed, the survival—of their nation will depend decisively on economic autonomy.

The fact that the economic prerogatives of Ukraine have been severely restricted has had an effect on the economic efficiency and welfare of the republic itself and on the rest of the USSR as well.⁶² It is hardly possible to speak of present planning and management in Ukraine as being conducive to the full utilization of its resources. There exist unemployment and underemployment, which force young people to migrate to other regions of the USSR. Available mineral resources are not efficiently exploited. There is no provision made for the future supply of the Ukrainian economy with energy and fuels. Foreign trade takes place not according to the principle of comparative advantage but in order to satisfy the needs of other regions of the USSR. Finally, some investable funds generated in Ukraine are not used there but are transmitted, without any compensation, to other regions—where, moreover, they are less productive. It is true that Ukraine has enjoyed a high rate of growth that has brought a high level of economic development. But there is also no doubt that the Ukrainian growth rate, as a result of these factors, has also not been advanced at the maximum possible rate.

Since Ukraine is a significant part of the USSR, the failure to reach its maximum production level lowered the production level of the USSR. The same reasoning applies to welfare. The lower-than-maximum possible welfare in Ukraine decreased the average for the USSR. But there is one qualification: certain regions of the USSR, which were developed on the basis of defense or political considerations, substantially at the expense of Ukrainian resources, have benefited from this lower-than-possible productivity and welfare in Ukraine. Thus the Soviet leadership has benefited in terms of greater political

and military power.

Finally, the effect of the existence of the Ukrainian SSR and of other republics on planning and management of the Soviet economy per se should be considered. Since the complete centralization of all decision-making in Moscow is not feasible, some division of the country into more or less similar subunits is absolutely necessary. The present division units—with respect to the size of population, territory and economic activity—as, for example, the RSFSR and Estonia or Turkmenia have to be treated equally. The use of regions of similar economic size, such as the eighteen large economic regions, would be much more appropriate for this purpose (cf. Kistanov, 1968, pp. 198–99). But we know that economic decision-making cannot function in the USSR without a parallel political and administrative apparatus. To construct it for these regions would require the prior liquidation of such apparati in the republics. It seems that the Moscow leadership is not yet prepared to undertake this step because it fears reaction from Ukraine and other non-Russian republics to the removal of the last vestiges of their political identity. Here also, politics seems to prevail over economics. Yet, forced to live with the Ukrainian republic, the leadership utilizes the Kiev authorities for its purposes. Because these authorities are of the same nationality as the people, are able to use the same language, and are close to the people, it appears that the primary justification for their existence, in the opinion of the Moscow leadership, is their usefulness as an additional tool for plan fulfillment and, thus, for making the Soviet regime stronger.

NOTES

1. Exceptions are Nove, 1969, ch. 2; Billon, 1973.
2. At the First Conference on Ukrainian Economics in September 1975, at the Harvard Ukrainian Research Institute, Cambridge, Massachusetts.
3. For a discussion of the structure of Soviet economic administration, see Nove, 1969.
4. The importance of the Supreme Soviet in economic life is emphasized by Raznatovsky, 1970, pp. 54 ff. and dismissed by Pronska, 1973, p. 47. Most Western observers would undoubtedly agree with the latter's viewpoint.
5. Noteworthy is the fact that the term "independent" is rarely used for the description of the legal status of republics, although it is synonymous with "sovereign."
6. According to an editorial, "Velyka zhovtneva sotsialistychna revoliutsiia i utvorennia Ukrainskoi radianskoi derzhavy," RP, 1962, nos. 9–10, pp. 6–7, such basic rights are the voting of a republic's population for its constitution, in conformity with the USSR constitution but not subject to approval by the USSR Supreme Soviet; establishment of supreme organs; territorial supremacy; relations with foreign countries; equality with other republics; conferring of citizenship of

the Ukrainian SSR; legislation within the framework of the constitutions of the USSR and the Ukrainian SSR; right to secede.

7. How seriously the right of republics to secede is taken by the present Soviet leaders can be seen from the following episode. In 1961 seven Ukrainian professionals, mostly jurists, were tried in Lviv because they attempted to organize a society whose purpose was to be the propagation of secession of Ukraine from the USSR. They proposed that secession take place only subject to approval by the Supreme Soviet of Ukraine or by referendum of the republic's population, and that it should be accomplished in a peaceful manner. Although the activities of these men did not conflict with any existing criminal or constitutional laws of the USSR, the participants were severely punished. The leader of the group, a lawyer named L.H. Lukianenko, was sentenced to death (later commuted to fifteen years in jail), and others to long jail terms. See reprint of samizdat material, *Ukrainski iurysty pid sudom KGB* (Munich, 1968), pp. 29 ff.
8. See, for example, Bloembergen, 1967.
9. For discussion of such cases with respect to the 1936 Constitution, see Trofimenko, 1973, pp. 332–33.
10. The third function is called "administration" by Wellisz. Since this term is usually applied to the activity of the state in all spheres of public life, state activity in economic life will be referred to here as "management."
11. Some Soviet economists suggest that in respect to state-owned enterprises both terms should be used—that is, these enterprises are both guided and managed by the state, while cooperative enterprises are only guided by the state. See Pankratov, 1969, pp. 59–60.
12. *Politicheskii dnevnik*, June 1965 (Arkhir Samizdata, no. 1002).
13. See the speeches by the well-known poet M.P. Bazhan and Communist party official L.R. Korniiets at the session of the USSR Supreme Soviet in Zasedaniia, 1946, pp. 117–23 and 261–68, respectively.
14. PU, April 7, 1966. For ramification and interpretations of these and related problems, see Bilinsky, 1975.
15. DSUP, May 1971, p. 2. I am grateful to the publishers, Prolog Associates, for providing me with the back issues of this publication.
16. Katz, 1973, p. 93. Also see translation of the samizdat document by Dzyuba, 1974, p. 108. At the same time Dzyuba (pp. 110–11) points out the migration of Russians, usually for more important positions, to Ukraine.
17. P. Iu. Shelest, in the description of the development of the Ukrainian economy in his *Ukraino nasha Radianska* (Kiev, 1970), was accused of not paying enough attention to help from Russia to other republics; also, "elements of economic autarchy are obvious in the book." See editorial, "Pro seriozni nedoliky ta pomylky odniiei knyhy," KU, 1973, no. 11, p. 80.
18. Plenum, 1965, pp. 37, 38.
19. An irritated official called such a take-over "a very grave mistake" that "should not have been allowed in the socialist economy" (DSUP, March 1967, pp. 13–14).
20. For cases of economic defense in the Baltic republics, see Bilinsky, 1973, pp. 96–98; in Kazakhstan, see Khrushchev, 1974, pp. 120–21; and in Georgia and Belorussia, see Kistanov, 1968, p. 192.
21. Each republic maintains a permanent representative at the USSR Council of

Ministers in Moscow whose official responsibility is to coordinate the work between the Union and his republic, but certainly also to lobby for the interests of the latter before the union organs.

22. The following episode was related to this writer by a reliable source. In the early 1970s a building was constructed in Lviv for the Western Division of the Academy of Sciences of Ukraine. Scholars wanted to have a slightly higher ceiling than is prescribed by the union norms. They asked the first secretary of Ukraine Communist Party and a member of the Politburo of the CPSU, Petro Shelest, to intervene on their behalf. When Shelest went to Moscow and asked for this alteration, he was refused. Moreover, the Gosstroy bureaucrats later bragged that they had put Shelest in his place. One wonders how much influence Shelest's predecessors had on Moscow, or how much his successor V. Shcherbytsky now enjoys (he seems to have a weaker personality than Shelest).
23. For a comprehensive discussion of Soviet reforms, including non-Soviet bibliography, see Feiwei, 1972.
24. Following Soviet usage, the republic Sovnarkhoz will be written with upper case S, in contrast to the original sovnarkhoz, written with the lowercase s.
25. It is convincingly argued that economic decentralization in the USSR would most likely be followed by political decentralization (cf. Burks, 1973, pp. 390–92, 400–01).
26. See the discussion by the chairman of the Ukrainian Gosplan, DSUP, May 1962, pp. 8–11 or by the foreign minister of Ukraine, "Ukraina na mizhnarodnii areni," KU, 1963, no. 3, pp. 49–50.
27. For one description of these relations, see DSUP, February 1963, pp. 23–24.
28. For a description and analysis of these processes, see Bilinsky, 1968.
29. I. Magid, "Pravovoe polozhenie soveta narodnogo khoziaistva," in a collection edited by N. Tolstoi (Leningrad, 1959), p. 301, as quoted by Pawlik, 1968, p. 52.
30. According to Pawlik, 1968, p. 81, the number of centrally funded commodities increased from 10,000 in 1957 to 12,800 in 1960, to 14,000 in 1961, and to 18,000 in 1965.
31. For an excellent discussion of these problems, see Pawlik, 1968.
32. For an account of the increase in interbranch specialization and cooperation in Ukraine, see Kochubei, 1959, pp. 4–7.
33. According to the chairman of the Ukrainian Sovnarkhoz, transportation costs before 1957 were often greater than the benefits from large-scale production (Kuzmych, 1961, p. 20).
34. During this time—in 1961, to be precise—the first Soviet firm "Progress," comprising a number of small shoe-producing enterprises, was created in Lviv. See P, June 13, 1963. This was the beginning of the present movement toward creation of production and industrial associations.
35. For complaints about the diversion of investment to housing by Dnipropetrovsk and Luhansk (now Voroshylovhrad) sovnarkhozes and overpayment of wages by Dnipropetrovsk, Kharkiv and Luhansk sovnarkhozes, see DSUP, June, August, and September 1958.
36. For example, during one month there was a complaint that the Kiev sovnarkhoz failed to deliver certain goods to Memel (Lithuania) and Minsk (Belorussia), and the Kharkiv sovnarkhoz to the Bashkir republic. See DSUP, March 1958, p. 13.

37. For example, Dnipropetrovsk (pig iron), Donetsk (coal), and Luhansk (coal) sovnarkhozes, cited in Khyliuk, 1963, p. 64.
38. A Kiev economist, Horodensky, 1965, admits that investment in Kazakhstan and Turkmenia had to be financed largely by funds accumulated in Ukraine (p. 75) and that the regional system of management led to the development of a harmful tendency—localism (p. 76). In this context, the author meant that the system was not a good mechanism for the territorial transfer of investment funds.
39. At the end of 1962 there were five such committees for defense industries and six for other industrial branches.
40. According to Marchuk, 1964, p. 69, "The five-year experience of sovnarkhoz work showed that large sovnarkhozes manage industrial branches better, possess extensive possibilities for maneuvering material and technical resources, and provide better conditions for concentration, specialization, and cooperation of production."
41. For a vivid description of planning problems encountered by a chemical enterprise in Ukraine under the multitude of planning organs, see Kalechyts and Boholiubov, 1965, no. 1–2.
42. According to Raznatovsky, 1970, pp. 14–15, the Ukrainian industry in 1964 was subordinated to the following union authorities: VSNKh, Gosplan, Sovnarkhoz, three state production committees, eleven state committees, and twelve state branch committees, as well as to the following republic authorities: Sovnarkhoz, Gosplan, Ministry of Electric Power, and seven sovnarkhozes.
43. According to Keren, 1973, the recentralization of decision making under the conditions of taut planning is unavoidable. In view of the consistent excess demand over supply, central planners must have the authority to distribute inputs in short supply, allocate targets, and arbitrate among enterprises.
44. See, for example, articles by two important officials of the Ukrainian Gosplan, Khyliuk, 1965; Ostrovsky, 1966.
45. For example, "Industrial enterprises, sovkhozy, construction, transportation, geological and other state and cooperative enterprises located on Ukraine's territory, are subordinated to 26 union, 60 union-republic, 24 republic-subordinated ministries and departments and also to executive committees of republic subordination of 24 oblasts and two cities. Planning of industrial development on the republic's territory is performed by 72 ministries and departments, and investment by 97 ministries and departments, and executive committees of 24 oblasts and of Kiev and Sevastopol'" (Bezhulov, 1968, p. 6).
46. For the text of the resolution on association, see P, April 3, 1973. At the beginning of 1974, there were 288 associations in Ukraine, of which 45 were within union ministries, 216 within union-republic ministries, and 27 within republic-subordinated ministries. See Horbovaty, 1975, p. 135.
47. Nevertheless, there are some associations for example, in the automobile industry—that cross republic borders (Pavlenko, 1975, pp. 232–33).
48. Such a knowledgeable observer of the USSR as Alec Nove (1969, p. 87) comes to the same conclusion, though by a different route. He believes that "in all those circumstances the changes in republican powers may have been intended for tidying up rather than diminution. However, it is worth observing that the logic of the present wave of reforms, which strengthens enterprises, ministries and

obedineniia, is broadly inconsistent with territorial administrative powers over the economy. Therefore republican powers have declined and complaints are being published to this effect."

49. The subsequent discussions based on the resolutions of the USSR Council of Ministers of May 4, 1955, August 29, 1957, October 4, 1965, July 10, 1967 (their titles were cited on preceding pages) and the law of the USSR Supreme Soviet of October 30, 1959. They will be referred to in the text according to the year of publication and the original number of a particular provision.
50. For the great variety of activities of Ukrainian ministries, see Iakuba and Kasianov, 1973. Some authors (Raznatovsky, 1970, p. 128; Horbovaty, 1975, p. 107) claim that there is almost no difference between competences of republic-subordinated and union-republic ministries in Ukraine, while others (DSUP, August 1967, p. 13) show, using the example of the Ukrainian Ministry of Chemical Industry when it still was of union-republic subordination, that even the operative powers were concentrated in the ministry of the same name in Moscow. Also, Dosymbekov (1964, pp. 101-05) shows that in the case of the union-republic Ministry of Nonferrous Metallurgy in Kazakhstan, the decision-making powers were concentrated to a higher degree in the hands of the corresponding ministry in Moscow than in the case of the union-republic Ministry of Light Industry.
51. In general, the regional manager is in a weaker position than the branch manager if there is a disagreement because "the latter has the advantage of national perspective, greater technical knowledge, and more intimate access to the central leaders." See Hough, 1969, p. 204.
52. See the law cited in "Zakon o biudzhetnykh pravakh Soiuza SSR i soiuznykh republik," of October 30, 1959. The numbers in parentheses are those of original provisions.
53. According to the vice-chairman of the USSR Price Committee, republics determine prices of 40 percent of all consumer goods, 20 percent of all producer goods, local transport, a significant part of consumer services, and many procurement, purchase, delivery and wholesale prices of various raw materials and forestry products (EG, 1967, no. 2, p.8).
54. The prerogatives to allow traveling construction crews to rent rooms in private houses, and construction enterprises to reimburse up to three rubles per month (1955, 30), or to allow residents of regions without forests to work on construction projects in regions with forests and take home the cut timber (1967, 37), and such similar "powers" of the republic government were not listed.
55. Unfortunately, this writer was unable to find any definitive description of the planning by republics at the present time. Although the official text on planning, Gosplan SSSR, *Metodicheskie ukazaniia k razrabotke gosudarstvennykh planov razvitiia narodnogo khoziaistva SSSR* (Moscow, 1974), contains a separate chapter on the planning by union republics, it was of little use for the understanding of this problem. Therefore, the present description is based on a not very precise account given by Pavlenko, 1971, pp. 162-77.
56. Such a plan was prepared for the first time in Ukraine for the year 1968 (Prykhodko and Korobko, 1967, p. 33).
57. See, for example, the complaints of the chairman of the Ukrainian Gosplan, (EG,

- 1971, no. 2) and also Dosymbekov, 1974, pp. 56–57.
58. This estimate was derived on the assumption that the output share of sectors under republic jurisdiction is proportional to their employment share in total Ukrainian employment.
 59. According to Pavlenko, 1971, p. 170, the number is much too large.
 60. The statement refers to the situation in the early 1960s.
 61. In view of the almost complete uniformity of economic laws and practice for all republics, only minute changes would be required to apply the findings and conclusions of this paper to the remaining constituent republics of the USSR.
 62. See various chapters in Koropec'kyj, 1977.

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Part III

Studies in History of Economics

*I decline to accept the end of man.
I believe that man will not merely endure;
he will prevail. He is immortal, not
because he alone among creatures has an
inexhaustible voice, but because he has a
soul, a spirit capable of compassion and
sacrifice and endurance.*

William Faulkner

Chapter 6

Academic Economics in Nineteenth-Century Ukraine

I don't think that whatever qualities we have as British people come from the people or from race. They come from the historic continuity of our institutions, which themselves form our identity as long as we remember them.

Sir Hugh Trevor-Roper

Introduction and Conclusion

The purpose of this chapter is to discuss the early development of economics in Ukraine which took place almost concurrently with the rise of this new science in Western Europe. The next section will show that Ukrainian universities introduced quite early into their curricula programs in economics and in such related sciences as statistics, commercial law, and administration. Several professional economists lectured to interested students on economics. Furthermore, the progress in economic science in the West exerted a marked influence on Ukraine. Individual economic schools soon found their followers there. Representatives of some of these schools will be discussed in the final section of the chapter.

Two concepts included in the title need to be clarified: What do we mean by “academic economics,” and which economists do we consider to be Ukrainian. With respect to the former, it is appropriate and sufficient to refer

to Joseph Schumpeter (1961, p. 2). According to him, "Economics is a field of science in which are scientists or scholars, who engage in the task of improving upon the existing stock of facts and methods and who, in process of doing so, acquire a command of both that differentiates them from the 'layman' and eventually also from the mere 'practitioner'." Furthermore, economic science consists of the study of economic history, statistics and theory (Schumpeter, 1961, p. 15). The emphasis of this chapter will be on the contributions of Ukrainian scholars to the last component. Following Schumpeter (1961, p. 15) again, by economic theory we mean "simplifying schemata or models that are intended to portray certain aspects of reality and take some things for granted in order to establish others according to certain rules of procedure." In other words, these schemata or models are certain hypotheses which do not contain "final results of research that are supposed to be interesting for their own sake, but are mere instruments or tools framed for the purpose of establishing interesting results." Quoting Joan Robinson with approval, Schumpeter compares economic theory with a box of tools that may be used for the investigation of certain economic relations.¹

Our discussion will not be concerned exclusively with the contributions of Ukrainian economists in this analytical or technical aspect of scientific economics, which has developed only since the end of the last century. It will also include discussion of these economists' contributions to political economy, the study of views about practical problems of national economy, along with the set of social values underlying these views (Schumpeter, 1961, p. 1141), and of their contributions to the debates on appropriate methodology in economic science. These two themes dominated economic literature during most of this period. Our survey will exclude various applied economic works, whether historical or statistical, and will be primarily concerned with academic economists, because they most closely correspond to "economic scientists" as defined earlier.

We define the following two groups as being Ukrainian: (1) those who considered themselves ethnic Ukrainians regardless of the country in which they worked; and (2) those of other ethnic groups who were engaged in scholarly work in Ukraine for the better part of their lives. Consequently, we exclude many famous economists born in Ukraine of other ethnic backgrounds, but who worked in other countries, including Carl Menger or Arthur F. Burns.

In the two subsequent parts of this chapter, about forty Ukrainian economists are mentioned or discussed in greater or lesser detail. Most of them are listed in the following table, which summarizes information on their academic affiliations, their countries or Ukrainian regions of birth, the universities from which they received graduate degrees, and their travels abroad. In some cases, the necessary information could not be found; therefore, the blank spaces in the table should not be interpreted as the

absence of a particular degree or of foreign travel.

Most of the faculty of Ukraine's three universities in the Tsarist Empire were born in Ukraine. While it is often difficult to determine whether an economist was ethnically Ukrainian or Russian, the background of most of them suggests Ukrainian ancestry. In other words, although they might at that time have called themselves "russkii," meaning citizens of Tsarist Russia, by today's standards they would have considered themselves Ukrainians. The remaining economists are of Russian, Polish and Swiss ancestry.² In addition, immigrants from Russia proper and from Germany taught at these universities. The two German-born economists were explicitly invited to teach at Kharkiv University at its founding, due to a lack of native professionals. At Lviv University, which was dominated by Poles, all four economists were ethnically Polish. At Chernivtsi University, all three professors were Germans.

The scholars discussed were educated at, and received their graduate degrees (in most cases) from Ukrainian universities. (The Lviv and Chernivtsi economists are excluded from the subsequent discussion.) In a few cases, these degrees were granted by Moscow University and St. Petersburg University. The fact that the Ukrainian economists received their graduate training and wrote their dissertations in their own universities had certain disadvantages. Ukrainian universities were relatively young, and the tradition of scholarly excellence was not yet firmly established. Since in some cases the graduates were retained by the university as faculty members, the perpetuation of inadequate professional standards may have been encouraged.

As the table indicates, several of the economists listed made study trips to Western European universities. Such trips were financed by state scholarships and usually lasted two years. German universities were favored, followed by French and British universities. As a result, practically all of these economists knew Western European languages, were able to follow Western European professional literature and to react to new directions in economics. Interestingly, with one exception, none of these people received a degree from a foreign university. Except for Tuhan-Baranovsky, Kovalevsky, and Slutsky, and these economists only rarely published in foreign journals.³ Undoubtedly, Ukrainian economists at that time were influenced by Western Europe directly, and not via Moscow.⁴

Obviously, Ukrainian economists, as citizens of the Russian Empire, were involved in all aspects of life in Russia proper. While they may have been influenced by Russian politics, literature, and social tastes, no indication exists that the same was true with respect to economic science. One can find hardly any references to Russian sources in the works of Ukrainian economists,⁵ simply because this discipline was only in its beginnings in Russia as compared with Western Europe. Thus Ukrainian economists did not borrow much from Russian scholarship; on the contrary, they contributed to its enrichment by writing in Russian and by publishing some of their works in

TABLE 6.1. Background of Ukrainian University Economists

	Degree Granting University Country or Ukrainian Region of Birth	Master	Doctor	Study Abroad
Kharkiv University (Founded in 1805)				
J. Lang	Germany		Freiburg	
L.v. Jacob	Germany		Halle	
T. Stepanov	Russia	Kharkiv		
P. Sokalsky				
I. Sokalsky	Kharkiv	Kharkiv	Kiev	Yes
I. Sreznevsky	Russia	Kharkiv		Yes
M. Oleksiienko	Katerynoslav	Kharkiv	Kharkiv	Yes
K. Hattenberher	Russia	Kharkiv	Kiev	Yes
M. Kossovsky		Kharkiv	Kharkiv	
I. Myklashevsky	Chernihiv	Moscow		
P. Migulin				
V. Levytsky	Kiev	Moscow	Moscow	Yes
Kiev University (Founded in 1837)				
I. Vernadsky	Kiev	St. Petersburg	Moscow	Yes
M. Bunhe	Kiev	Kiev	Kiev	
A. Antonovych		Kiev	Kiev	
H. Sydorenko		Kiev	Kiev	
H. Tsekhanovetsky	Chernihiv	Kiev	Kiev	Yes
M. Ziber	Crimea	Kiev		Yes
V. Zheleznov		Kiev		
D. Pikhno	Kiev	Kiev		
M. Iasnopolsky				
L. Iasnopolsky	Kiev	Kiev		
K. Vobly	Poltava	Kiev	Kiev	Yes
O. Bilimovych	Zhytomyr	Kiev	Kiev	Yes
Odessa University (Founded in 1865)				
M. Volsky	Tavria	Moscow	Odessa	Yes
O. Posnikov	Russia	Moscow	Moscow	Yes
L. Fedorovych		Moscow	Kiev	Yes
V. Kosynsky	Chernihiv			Yes
R. Orzhentsky	Zhytomyr	Odessa	St. Petersburg	Yes
Lviv University (Founded in 1817)				
L. Biliński	Ternopil		Lviv	
W. Ochenkowski	Poland		Jena	
S. Głabiński	Lviv		Lviv	
S. Grabski	Poland		Bern	

Chernivtsi University (Founded in 1875)

F. Kleinwächter	Bohemia	Prague
J. Schumpeter	Austria	Vienna
A. Amonn	Switzerland	Freiburg

Other Universities

S. Desnytsky (Moscow U.)	Chernihiv	Glasgow	Glasgow	Yes
M. Baluhiansky (St. Petersburg U.)	Transcarpathian Ukraine		Vienna	
I. Ianzhul (Moscow U.)	Kiev	Moscow	Moscow	Yes
M. Kovalevsky (Moscow U.)	Kharkiv			Yes
O. Myklashevsky (Dorpat U.)	Chernihiv	Moscow	Tartu (Dorpat)	Yes
M. Tuhan-Baranovsky (St. Petersburg U.)	Kharkiv	Kharkiv	Moscow	Yes
P. Liashchenko (St. Petersburg U.)	Russia	St. Petersburg	Tomsk	Yes
Ie. Slutsky (Kiev Commercial Institute)	Russia	Kiev		Yes
M. Ptukha (St. Petersburg U.)	Chernihiv	Moscow		Yes

SOURCE: See the text.

journals and publishing houses based in Moscow and in St. Petersburg. For example, according to a Russian historian of economic thought, a Ukrainian economist,

Vernadsky, indeed, more than any one else popularized the literature of Western European vulgar economists in Russia. He translated their works and published them in separate publications and also abundantly included them in his [edited by him] journals (Tsagolov, 1956, p. 375).⁶

Remarkably, Ukrainian economists were not submerged, under these conditions, completely in the Russian sea. The retention of ethnic and territorial distinctiveness is clearly evident in their scholarly interests. In addition to their works on economic theory, they wrote also on applied topics. In many cases, these topics concerned the economic and social conditions in Ukraine.⁷ On the other hand, Ukrainian economists hardly ever wrote, for example, on the future of the *obshchina*—this specific Russian institution of the

village commune—a topic with which Russian economists, within and outside of universities, were preoccupied during the early stages of industrialization (cf. Gerschenkron, 1955).⁸ Thus, statements by Soviet writers that the development of economic science in nineteenth-century Ukraine proceeded under Russian influence sounds absurd.

Did these scholars have any influence on each other in terms of specific methodology or certain preferred theoretical problems for analysis, so that they can be considered members of a “Ukrainian school” of economics? From readings of their works available in the West and of critical literature about them, such a hypothesis seems unfounded.⁹ Rather, the following conclusions about the classification of Ukrainian economists according to methodological preferences can be proposed. Ivan Vernadsky was an uncompromising laissez-faire economist and Kostiantyn Hattenberher was a strong defender of the deductive methodology in economics. Mykola Ziber was a follower of the Marxist labor theory of value but otherwise his Marxism was dubious. Dmytro Pikhno was inclined toward marginalism, while Roman Orzhentsky and Oleksander Bilimovych were its consistent adherents, with the qualification that both in the later years of their lives revised their views. All others were primarily eclectic, but inclined to the use of historical and institutional approaches in their research.

The obvious reason for the preference among Ukrainian economists for historical and institutional, rather than for purely theoretical approaches in their research was the influence of the period in which they lived and of the country in which they studied, namely Germany. The classical deductive school of economics never gained a strong foothold in that country, giving way, as early as the beginning of the nineteenth century, to the views of Friedrich List, and, subsequently, to domination of inductive methodology there. Similar changes occurred throughout continental Europe. While in other Western countries the marginalist revolution succeeded during the last third of the nineteenth century and culminated in the Marshallian neoclassical synthesis shortly before the turn of the century, the preeminence of the historical school survived in Germany until World War II. Ukrainian economists were trained by German universities—which at that time enjoyed the highest reputation in the world—in the use of inductive methodology. Evidently they were not convinced by the new trends in economic science in other countries, such as England, Switzerland and, with a few exceptions, even in nearby Austria. After returning to their universities, the majority of them continued to work in this German tradition.

The other important reasons for methodological preferences among Ukrainian economists were the economic and social conditions in Ukraine and in the entire Russian Empire at that time. Starting with Friedrich List, economists objected that the laissez-faire economy advocated by classical economics benefited primarily the most developed country, that is, England.

Since the Tsarist Empire was backward in comparison not only with England, but also with most European countries, the economists analyzed here were convinced that adherence to the *laissez-faire* economy would perpetuate existing conditions. Economic progress, they believed, could be achieved with the help of appropriate government intervention.¹⁰ The government was needed also to ameliorate serious social inequities. The emphasis on the German historical school or the responsibility of public authorities for social conditions made it also attractive to Ukrainian economists at that time. In other words, the need for economic development and some kind of social justice were, in the case of Ukraine, Stigler's "important, persistent, and widespread" problems, which could influence the development of economic science (Stigler, 1965b, p. 20).

Having rejected the pure *laissez-faire* doctrine, Ukrainian economists had to deal with the other extreme in economics—socialism. They rejected socialism decisively on both theoretical and ethical grounds, with the notable exception of Mykola Ziber. Thus the professionals rejected Marxian economics and were not responsible for paving the way for the 1917 Revolution. Having been accepted by a substantial share of the lay intelligentsia and of the working class, Marxian ideology, as suggested by Gerschenkron (1969, pp. 13–14), succeeded in Tsarist Russia not because of its theoretical content, but primarily because of its ethical message in view of existing economic and social conditions.

The final question to be addressed is: How good professionally were these economists? In other words, did they formulate the existing economic theories in a more rigorous, clear, and general form? Did they introduce any new ideas to world economic scholarship? The answer to these questions was given in 1894 by the conscientious and well-informed scholar, Mykola Bunhe, who referred to a bibliography listing 6,391 original economic works and 126 translations published in the Russian Empire, including Ukraine, before 1879.¹¹ Bunhe concluded sadly that if all these

[E]conomic books and articles did not contribute anything new or original to the treasury of human [economic] knowledge, nevertheless, one could name more than a few sufficiently substantial works in various fields of political economy. Among these works are some which are respectable, having value of their own, and there are [also] studies of high scholarly importance (Bunge, 1895, p. 200).

My reading of the works of the Ukrainian economists included here extends beyond 1874, to the outbreak of World War I. Apparently, nothing was published by them during this period to invalidate Bunhe's views. On this basis, and on the basis of critical studies about this period, one can concur with Bunhe: Ukrainian economists at that time were well-educated and competent scholars, but none were of the caliber of their slightly younger compatriots, such as Tuhon-Baranovsky (cf. Amato, 1984) or Slutsky (cf.

Smolinski, 1984).¹² It is outside the scope of the present survey to investigate the reasons for this situation.¹³

This pessimistic conclusion should not be considered final; certain important and original contributions of Ukrainian economists may have been overlooked until now. This suggestion can be supported by the following, rather long quotation. During the Methodenstreit in the 1870s and 1880s, according to a historian of Kharkiv University, its economics professor

[Kostiantyn] Hattenberher gave an exemplary analysis of the views of the historical-ethical school in political economy...¹⁴ [and] about two years later...in 1883 there appeared a work on this subject by a Viennese professor Carl Menger...¹⁵ in which he [Menger] defends theoretical economics and sharply points out the errors of Schmoller's historical-ethical school. The book exerted an enormous impact on specialists in political economy and, thanks to it, Menger has enjoyed the reputation of a first-class economist. In fact, all the basic points of Menger's book which made such an impression had been expressed earlier by the modest Hattenberher—true, more concisely, but in many respects even in better form than by Menger. But while Menger's book was authored by a professor in the capital of a European country, published by one of the best publishers in Germany, written in the German language and immediately caught the attention of the editors of economic journals throughout Europe, Hattenberher's views were expressed in an excellent but short...article, published without the signature of the author (under the initial H...) in a provincial journal which after the appearance of its fifth issue discontinued publication,¹⁶ and was subsequently forgotten even by the small number of Russian economists who had seen it (Levitsky, 1908, pp. 260–61).

Thus it can be hoped that more thorough research may still uncover substantial contributions of nineteenth-century Ukrainian scholars to economic science.

Economic Science in Ukrainian Universities

Before World War I, five universities were located in Ukraine: three (Kharkiv, Kiev and Odessa) in the part occupied by Tsarist Russia and two (Lviv and Chernivtsi) in the part belonging to Austria-Hungary. This political division not only hindered the circulation of ideas and scholars between the two groups of universities, but also imparted to them quite a different character with respect to the form and content of their activities. The language of instruction in the former group was, of course, Russian. Their students and also faculty were exposed mainly to the literature of a language in which the scholarship was just beginning to develop. Thus these universities remained not only within the political orbit but also within the cultural orbit of the Russian Empire. On the other hand, the language of instruction in Lviv University was Polish and German and in Chernivtsi University exclusively German. This condition as well as the free political and cultural intercourse

with foreign countries, in contrast to Tsarist Russia, made these institutions a part of the Western intellectual world, at least until World War II.

The following section discusses the works of various economics professors in these universities, with emphasis on the three which were under Tsarist rule.¹⁷ The extent of the discussion of either a university or an individual scholar should not be taken as an indicator of its or his importance, as in some instances it is the result of the availability of relevant information in the West.

Kharkiv University, organized in 1805, was the first modern university in Ukraine. Economics was originally taught at the law faculty in the department (*kafedra*) of civil law (*politsyine pravo*). A separate chair of political economy was introduced in 1835. In this respect, Kharkiv was comparable to universities in developed countries: this course was introduced as a separate subject at Columbia University in 1818, at Oxford University in 1825, and at the College de France in 1830, while the University of Naples had introduced it by 1754.

The first lecturer of political economy was Josef Lang, from Freiburg, Germany, who was a graduate from the local university. Lang taught economics for one year, 1805–6, and later between 1810 and 1819. He was dismissed from the university because of an unauthorized trip abroad. During his stay in Kharkiv, Lang published two books on economics.¹⁸ One dealt with the subject of political economy, which he considered to be the study of competition of private interests. Since they are often in conflict, the state should sometimes mediate among them. The other book analyzed various quantifiable economic relations with the help of mathematical methods. Lang can thus be considered a forerunner of the mathematical school of economics (Levitsky, 1908, pp. 271–72; Bagalei et al., 1906, pp. 63–79).

After Lang's departure, Ludwig Heinrich von Jacob (1759–1827) was invited to teach political economy at the new university. He was born in Prussia and graduated from Halle University, where he remained to teach first philosophy and subsequently political economy. After 1806, when Napoleon closed Halle University, Jacob moved to Kharkiv. There he stayed until 1810 when he was called to St. Petersburg to serve on various government committees. In 1816, he returned to Halle.

Jacob was a follower of Adam Smith and J.B. Say, and translated the latter's book into German. He distinguished between three branches of economic science: political economy (science of national economy), state economy or financial law, and economic activity of the state (civil law or *politsyine pravo*). During his stay in Kharkiv, he contributed considerably to the dissemination of Adam Smith's and J.B. Say's ideas not only in Ukraine but also throughout the Empire. He also took a stand against serfdom, according to some economists, a courageous act given the conditions of the time (Levitsky, 1908, p. 275–77; Schumpeter, 1961, p. 501). Soviet writers

point out that Jacob advocated the introduction of a free market for agricultural labor, because of its higher productivity as compared with serfdom. Using the excuse of the existing social and economic conditions in the Empire, Jacob stopped short of advocating the complete emancipation of serfs (Morozov, 1959, p. 19). A prolific writer, Jacob published about thirty-five books which were translated into various languages (Levitsky, 1908, p. 276).¹⁹

Between 1819 and 1832, the course on political economy was taught by B. Reith and K. Pavlovich (Chubinsky and Bagalei, 1908, pp. 9–10), neither of whom was a specialist in economics. During this period, the academic level of the course must have deteriorated because, according to a university historian, "the course on political economy represented a miserable parody of university teaching" and "political economy was taught at a very sad and low level" (Bagalei et al., 1906, p. 146).

An improvement in the course came with the arrival, in 1832, of Tykhon Stepanov (1795–1847) (Teplytsky, 1956b). Stepanov was born in Voronezh gubernia and completed his studies at Kharkiv University at the law faculty, although his master's thesis dealt with political economy. Because no opening existed for a teacher of political economy at his alma mater, Stepanov took a government job in St. Petersburg, where he became closely acquainted with the then influential economist, H.F. von Storch (1766–1835).²⁰ Stepanov was a socially conscious man, whose writings and lectures had a political accent.²¹ He is considered to be one of the founders and popularizers of classical economics in Ukraine and Russia (Bagalei et al., 1906, p. 146).

Under von Storch's influence, Stepanov attempted to modify some of Smith's views. For example, he considered both material and nonmaterial work productive. However, his primary concern was with social injustice and poverty which, in his view, were the result not of any economic laws, but of the structure and workings of contemporary society. In order to remedy this situation, economic phenomena had to be studied with the aim of utilizing them for social reforms involving the enlightened and harmonious cooperation of all classes. His goal was a society with just income distribution and equitable taxation. By emphasizing the advantages of social institutions in England, Stepanov implicitly suggested that Tsarist Russia should emulate the most liberal country at that time on the road toward progress. Among Stepanov's other ideas were his opposition to trade restrictions and, therefore, to mercantilism, as well as his rejection of Malthusian propositions, owing to his belief in human ingenuity.

While Stepanov was a good teacher, his scholarship was not rated highly. In discussing the development of political economy in his main work, he did not simply reproduce the views of the founders of economics, but often criticized these views and offered his own instead. His criticisms were often inaccurate and shallow, and sometimes guided more by emotions than by

reason. However, in certain cases he showed some originality. Stepanov's sympathy with working people is evident throughout his book (Vernadsky, 1858, p. 183).

An outstanding professor of political economy at the chair of civil law of the law faculty, was Kostiantyn Hattenberher (1844–93), mentioned above, who was born in St. Petersburg into a family of Swiss origin. He graduated from Kharkiv University where he also received his master's degree. He received his doctorate from Kiev University. Like many other university professors at that time, he made a two-year study-tour of Western European universities. He was a dull lecturer, and was so immersed in his theoretical research that he paid little attention to current economic problems (RBS, vol. 4, pp. 268–69).

Hattenberher specialized in three areas of economics: banks and credit, methodology, and cooperatives and labor movements.²² In his work on money and banks, he paid attention to the influence of financial institutions on economic development and their relationship to the government. In his work on methodology in economics, Hattenberher was a consistent follower of the deductive approach in economic science, represented especially in the works of J.S. Mill and J.E. Cairness. He was critical of the new (at that time) historical-ethical school. He claimed that the inductive method, advocated by this school, might lead to the formulation of an economic law; but one has to be careful in using it because of the impossibility of conducting controlled experiments in social life. In order to comprehend socio-economic relations objectively, it would be necessary to confront the laws derived on the basis of empirical observations with conclusions reached with the help of deductive methodology (Levitsky, 1908, pp. 255–64). Obviously, Hattenberher, as a follower of classical liberalism in economics, was opposed to socialism. He considered this system a restriction on the free will of individuals, a factor at the center of attention in the classical school. At the same time, he was aware of the various inadequacies of capitalism and discussed them critically.

During Hattenberher's lifetime, the second half of the past century, the organization of production cooperatives was considered to be an effective counter-measure against the failings of capitalism. Nevertheless, Hattenberher opposed the cooperative movement. He argued that cooperatives, organized on a small scale, are unable to withstand competition from large-scale, privately owned enterprises. For him, the disappearance of small-scale producers and craftsmen was an inevitable consequence of economic progress. The cooperatives only postponed the demise of small producers. On the other hand, Hattenberher was in favor of labor unions which, according to him, could improve considerably the workers' standard of living (Teplytsky, 1961, pp. 211–12).

Another occupant of the chair on civil law, but specializing in economics, was Mykhailo Oleksiienko (Alekseenko) (1847–1917) (ES, vol. 1, part 1, p.

416; Chubinsky and Bagalei, 1908, p. 216). Oleksiienko was born in Katerynoslav (now Dnipropetrovsk), and completed his studies at Kharkiv University, from which he received his master's degree in 1872 and his doctorate in 1879. In the meantime he studied for two years at various Western European universities. Oleksiienko was associated with Kharkiv University between 1873 and 1899, first as a lecturer, then as a dean and rector. He specialized in public finance and, in particular, in problems of public debt.²³

The first holder of the chair of political economy in the Faculty of Philosophy was Petro Sokalsky (1796–1858), who taught there until 1848. Generally, his lectures followed the ideas of J.B. Say and H. von Storch. During Sokalsky's tenure, a well known Slavic philologist and ethnographer, Izmail Sreznevsky (1812–80), taught statistics and economics between 1837 and 1839. He published *Opyt o predmete i elementakh statistiki i politicheskoi ekonomii sravnitel'no* (Kharkiv, 1839), in which he investigated the relationship between these two disciplines. Ivan Platonov, who held a doctorate from St. Petersburg University, lectured in Kharkiv between 1849 and 1856. Platonov's speciality was agricultural economics, to which he devoted his main treatise.²⁴ Between 1851 and 1858, M. Protopopov was lecturer of this discipline (Bagalei et al., 1906, pp. 137–38).

Between 1858 and 1896, political economy was taught by Ivan Sokalsky (1829–96), who succeeded his father Petro Sokalsky in this position. He was educated at Kharkiv University from which he received his master's degree in 1849. He received a doctorate from Kiev University in 1872. During that period, Sokalsky made a two-year study tour of Western European universities. He started his teaching career at Richelieu Liceum in Odessa. While in Odessa, Sokalsky published monographs on the foreign trade of Southern Ukraine and Bessarabia. In Kharkiv he taught economics and statistics, generally in line with the historical school. He introduced a course on the history of economic doctrines, probably the first such course in the entire Empire. In addition to his academic life, Sokalsky participated in community affairs and was interested in literature and music, to which he devoted many articles. He served as chairman of the local statistical commission and edited both the studies of this commission and a statistical monthly. During his Kharkiv period, Sokalsky wrote several works on the regional craftsmen (Levitsky, 1908, pp. 281–84). His last work dealt with monetary economics.²⁵ Sokalsky argued here in favor of the bimetallic standard of currency and of the nominalistic theory of values of gold and silver (Vlasenko, 1963, pp. 23, 24).

Hryhorii Tsekhanovetsky, professor of political economy at Kharkiv University between 1861 and 1891, will be discussed separately below. According to a Soviet writer, Tsekhanovetsky was a stimulating lecturer and promoted an open-minded approach among his students toward the study of

economics, including the Marxian theory of value. For this reason Tsekhanovetsky was investigated by authorities for alleged subversiveness (Teplytsky, 1961, pp. 212–13).

Perhaps as a result of his influence, one of Tsekhanovetsky's students, Mykola Kossovsky, subsequently a lecturer of economics at the university, produced a study on the theory of value that advocated a dialectical approach, although not exclusively, in the analysis of this problem.²⁶ Kossovsky in general favored the explanation of the value of commodities in terms of quantity of labor spent on their production. He traced the development of the labor theory of value from Petty, Smith, Ricardo, and Marx, and criticized alternative explanations of value (Korniichuk, 1974, pp. 130–31).

Between 1896 and 1901, Ivan Myklashevsky (1858–1901) succeeded Tsekhanovetsky in the chair of political economy at the university. Myklashevsky was the scion of an old family of Cossack officers from Chernihiv gubernia and had been educated at St. Petersburg, Moscow and Odessa Universities. His master's degree was obtained at Demidov Liceum in Iaroslavl in 1893. His views were classified by his brother as "Katheder Socialism" (Miklashevsky, 1908, p. 452).²⁷ His specialty was agricultural economics.²⁸

Concurrently with Myklashevsky, P. Migulin was also a member of the economics faculty. He was interested in monetary economics and already at that time advocated a system, to be known as the gold exchange system; in other words, the reliance on paper money for domestic purposes and the use of gold for international settlements only (Vlasenko, 1963, pp. 206–207).²⁹ An economist at Kharkiv University, active under both the Tsarist and the Soviet regime, Volodymyr Levytsky (1854–1939), (Levitsky, 1908, pp. 286–88; Teplytsky, 1961, p. 206), was a native of Kiev gubernia and a graduate of Odessa University, where he was influenced by the lectures of Oleksander Posnikov. After two years of study at Western European universities, Levytsky obtained a master's degree from Moscow University in 1890 and a doctorate in 1893. In that year he began an association with Kharkiv University which lasted until his death. Before the Revolution, Levytsky advocated an economic system that would contain the better features of both capitalism and socialism. His favorite field was agricultural economics. He studied this subject in France, and came to the conclusion that large-scale agricultural enterprises are not necessarily the most efficient. His preference was for small- and medium-scale farms, which can withstand business fluctuations better than large farms.³⁰

The modern university in Kiev was organized under the name Imperatorskii universitet sv. Vladimira in 1837. The course on political economy was offered for the first time in 1842, and was taught by Professors Stavrovsky and Dombrovsky. However, since neither was a specialist in this discipline, the course was discontinued in 1845 (Vladimirsky-Budanov, 1884, p. 372).

The first professional economist who reintroduced this course in 1846 was Ivan Vernadsky. Within four years, Vernadsky was succeeded by Mykola Bunhe, who continued to be associated with the university in various capacities until 1880. Hryhorii Tsekhanovetsky taught political economy and related courses between 1859 and 1872. (Vernadsky, Bunhe, Tsekhanovetsky and Mykola Ziber, all from Kiev University, and Roman Orzhentsky, Odessa University, will be discussed separately in the third part of this chapter.) Another economics faculty member, who eventually became professor, was Heorhii Sydorenko (1832–99). He studied with Bunhe and earned his master's and doctoral degrees from Kiev University (ES, vol. 29, part 2, p. 847). Sydorenko published in the fields of finance and defense economics.³¹ Also a candidate for a teaching position, Oleksander Heisman (1815–59) deserves mention.³²

A successor to Bunhe at the chair of economics was Afynohen Antonovych (1847–1917), a graduate of Kiev University, and at one time an influential advisor on monetary problems to the finance minister, S. Witte. One of his main scholarly interests was the theory of value.³³ He criticized various existing theories and proposed his own, based on J.B. Say's theory of the three factors of production and Karl Marx's labor theory of value. According to Antonovych, the value of a commodity is the concretized socially necessary time for the interaction of nature, labor and capital. With respect to distribution, he followed in general the theories of Carey and Bastiat that economic development will lead to a harmony of all factors of production and, consequently, of all social classes (Korniichuk, 1974, pp. 128–30; Zhmudsky, 1959, p. 253). He was strongly critical of socialism on theoretical and practical grounds. In his writings on the economic policy of that time, Antonovych expressed views sympathetic to the landed nobility. For example, he objected to Sergei Witte's monetary reforms, because they facilitated industrialization and thus were in conflict with the interests of the nobility (Zhmudsky, 1959, p. 255).

At this same time, political economy was taught by Dmytro Pikhno (1853–1909). Pikhno was a native of Kiev and, in addition to his academic activity,³⁴ was much involved politically. He was for a time an editor of the newspaper *Kievljanin*, considered to be an organ of the reactionary nobility (Spektorsky, 1935, p. 34; Shablii, 1979, p. 91), and the leader of the notoriously chauvinistic "Soiuz russkogo naroda" (Kornienko, 1959, p. 67). In his economic views, Pikhno inclined toward marginalism (Kornienko, 1959, pp. 52–53).

Another contemporary, Mykola Iasnopolsky (1846–1920), was a graduate of the law faculty of Kiev University and lectured there, primarily on commercial law, from 1889 until his death. His most important publication was a very thorough two-volume book on the distribution of budget receipts and expenditures among the Empire's provinces.³⁵ In addition, Iasnopolsky

published several articles, mostly related to the economic development of Ukraine (ES, vol. 41, part 2, pp. 847–48).

The last professor of economics before the Revolution was Oleksander Bilimovych (1876–1963), who began his association with the university in 1907. During the Civil War, he served as a minister in the Denikin government and subsequently became professor of economics at the University of Ljubljana. In general, he was a marginalist in economic theory (Shablii, 1979, pp. 93–95). During his Kiev period, Bilimovych published in the field of theory of value and distribution,³⁶ while after the war, he wrote on business fluctuations and the application of mathematics to economics. At the end of his life, Bilimovych changed his views on economics and politics considerably. From a conservative he became an advocate of wide reforms to introduce “social capitalism” and “economic democracy” (*Zapiski russkoi*, 1976, pp. 302–304).

In addition to the above-mentioned faculty members, other scholars lectured on economics and related disciplines at Kiev University at various times. Mykola Ziber, a specialist on Marxian labor theory of value, taught there between 1873 and 1875. One who appears to have shared Ziber’s interest in the labor theory of value was Volodymyr Zhelezynov (1869–1933). While other economics professors, according to a Soviet writer, generally preferred to omit Marxian theory from class lectures, Zhelezynov discussed it, albeit critically (Zhmudsky, 1959, p. 255).³⁷ Zhelezynov himself tried to combine classical labor theory of value with utility theory. However, concerning monetary theory, he was a follower of the classical quantity theory of money (Vlasenko, 1963, pp. 73–74).

Leonid Iasnopolsky (1873–1957), son of the aforementioned Mykola Iasnopolsky, was also associated briefly with Kiev University before World War I. He studied at Kiev and St. Petersburg Universities and, in 1901, obtained a master’s degree from the former (Chubinsky and Bagalei, 1908, pp. 290–91). He was, for a year, a lecturer at Kharkiv University, but was dismissed for using the occasion of his inaugural lecture to make an anti-government speech. Iasnopolsky at first specialized in agricultural economics. After the Revolution, he headed, for a few years, the Institute of Economics of the Academy of Sciences in Kiev.³⁸ Kostiantyn Vobly (1876–1947) came to Kiev University from Warsaw University. Between 1906 and 1909, he lectured on economics and statistics.³⁹ After the Revolution, Vobly became an academician and briefly served as director of the Institute of Economics (Dereviankin and Pirozhkov, 1976).⁴⁰ Among other economists of pre-revolutionary Kiev University, M.V. Bernatsky and Petro Kovanko deserve mention for their studies on the economic contributions of Mykola Bunhe. Doctoral degrees were awarded to P.B. Struve, V.F. Totomians and N.N. Shaposhnikov at that time (Spektorsky, 1935, p. 34).

Odessa University, under the name *Imperatorskii novorossiiskii universitet*, was organized on the basis of Richelieu Liceum in 1865. In the same year Mykhailo Volsky (1834–76) was invited to lecture on political economy. He was a native of Tavria gubernia and was educated at Moscow University, from which he received a master's degree. After making a three-year tour of Western European universities, Volsky received a doctorate from Odessa University. He died prematurely in a mental institution in St. Petersburg (Markevich, 1890, pp. 546–47).

Volsky approached the science of political economy from a practical point of view. He argued that this science could be helpful in improving physical, moral and intellectual conditions in society. Volsky devoted his major work to an analysis of the scope and methodology of economics.⁴¹ There he critically analyzed definitions of economics by various writers, but his criticism was often superficial (Korniichuk, 1974, p. 126). According to Volsky's definition, the subject of political economy should be labor as seen from "the social point of view," involving both physical and spiritual activities. In this sense, Volsky said, political economy is a science about the human being and about his activities directed toward the satisfaction of material and spiritual needs (Korniichuk, 1974, p. 126). Another area of Volsky's interests was agricultural economics, on which he wrote his master's thesis.⁴² He considered the personal freedom of peasants and their land ownership as unconditional prerequisites for productive agriculture. He was willing to tolerate the existence of *obshchina*, but only on a voluntary basis (Karataev, 1956, pp. 128–31). During Volsky's tenure, two faculty members from other departments were involved in economic research. Ivan Palimpsestov, professor of agricultural science, worked on the problems of agricultural productivity in Southern Ukraine (Klem, 1928) and Robert Orbinsky, professor of philosophy, investigated the relationship between agricultural development and foreign trade (Varneke, 1928).⁴³

Between 1876 and 1882, political economy was taught at Odessa by Oleksander Posnikov (1846–1921), a native of Smolensk gubernia and a graduate of Moscow University. From this university, he obtained his master's and doctoral degrees on the basis of his work on communal agriculture.⁴⁴ His two-year study of agriculture in England, France and Germany, countries with privately owned farms, convinced him that communal ownership in agriculture, as it was practiced in Russia proper, had many economic advantages. Therefore, Posnikov argued—interestingly, even at that late date, but not surprisingly for an intellectual leader of the Narodniks (Karataev and Ryndina, 1961, p. 318)⁴⁵—that the communal system should not only be retained but also expanded through government purchases of land from large landowners and the transfer of this land to communes (ES, vol. 24, part 2, p. 687).

In the years 1884–1905, the position of professor of economics was held by Leonid Fedorovych, a graduate of St. Petersburg University who had also studied abroad. In Germany he was influenced by the Katheder Socialists, especially by L. Brentano. This influence is felt in his master's thesis, "Zhyl'ye pomeshcheniia rabochikh," in which Fedorovych argued that governmental intervention is necessary in order to ameliorate the class antagonisms (Karataev, 1956, p. 189). Fedorovych earned his doctorate at Kiev University, and subsequently was interested in the fields of economics other than social economics.⁴⁶ He was succeeded from 1905 to 1909 by Volodymyr Kosynsky (1864–1920),⁴⁷ a specialist in agricultural problems of pre-revolutionary Ukraine, a founding member of the Ukrainian Academy of Sciences in 1918, and an active participant in the Ukrainian independence movement during World War I (Kubijovyc, 1959, p. 1145). The last lecturer of political economy at Odessa University before the Revolution was Vasyl Katkov.⁴⁸

Although its history goes further back, the modern *University of Lviv* was inaugurated in 1817 under the name K.K. Franz I Universität. Its purpose was to serve the needs of East Galicia, as part of Western Ukraine was called at that time. In fact, the university was under strong Polish influence and was even hostile to Ukrainian aspirations. The professors were ethnically Polish, their allegiance was to the historical Polish statehood, and their lectures were in Polish. They had no relations, intellectually or otherwise, with Ukrainians, who represented the overwhelming majority of the province's population and whom the university was supposed to serve. The university was like an extraterritorial Polish entity in this part of Ukraine. There are no indications that the economics professors ever showed any interest in economic problems related specifically to the Ukrainian hinterland.

From the beginning, various courses related to economics (taxation, statistics, commercial law and others) were taught at the law department by, for example, professors Julian Dunajewski and Jan Koppel (Finkel and Starzyński, 1894, pp. 112–15). Leon Biliński (1846–1922) can be considered the first professional economist on the faculty. He was born in Ternopil province and received his doctoral degree in law from Lviv University. Bilinski taught from 1868 until 1892, when he left for high positions in government and politics. During his university tenure, he served at various times as rector and dean of the law school. His specialty was taxation and railroad policies.⁴⁹

Władysław Ochenkowski (1840–1908) was born in Prussian Poland and obtained his doctorate in 1868 from the University of Jena (Finkel and Starzyński, 1894, pp. 217–18). After teaching there and at the University of Münster, Ochenkowski was invited to Lviv in 1882. He was interested mainly in the economic development of England and published on this subject, mostly in German journals.⁵⁰ Between 1888 and the outbreak of World War I, various economic courses were taught by Stanisław Głąbiński (1862–1943) (Finkel and Starzyński, 1894, pp. 220–22). A native of Lviv Province, he

graduated and received a doctorate of law from Lviv University. He was a prominent political leader in interwar Poland. Głabiński was primarily interested in taxation and monetary economics.⁵¹ He is considered to have been under the influence of the German historical school, or even of its predecessor, Friedrich List (Guzicki and Zurawicki, 1974, pp. 27–30).

A well known economist, Stanisław Grabski (1871–1949), taught at Lviv University between 1905 and 1939 (Hahn, 1912, pp. 334–35). He was born in Western Galicia and, after studying at various German universities, received his doctor of philosophy degree from the University of Bern. Grabski was a prolific writer who published in various fields of economics, such as theory and methodology, socialism, economic history and agricultural economics. He began his professional career as a socialist, but by the turn of the century became a follower of the universalist school originated by Othmar Spann (Guzicki and Zurawicki, 1974, pp. 12–21). Grabski was also influenced in his later writings by Thorstein Veblen, Albert Schäffle, and the younger historical school. Grabski argued that the nation is a metaphysical unity formed throughout history. The objective of the national economy is not only to satisfy the needs of individuals, but also to promote the objectives of the nation as an entity larger than the sum of individuals. This responsibility can be best fulfilled when competitive capitalism consisting of small-scale enterprises, prevails (Guzicki and Zurawicki, 1974, pp. 12–21). During the interwar period, Grabski was an ideological spokesman for extreme Polish nationalism and expressed these views in a multi-volume work.⁵² He published voluminously during the period discussed.⁵³

Of the five universities existing in the pre-revolutionary Ukraine, the youngest, the *University of Chernivtsi*, was organized in 1875 as K.K. Franz-Josef Universität, with German as the language of instruction.⁵⁴ From the very beginning, a chair of political economy was introduced. The first professor of this discipline, Friedrich Klenwächter (1838–1925) from Charles University in Prague, remained associated with the new university until his death. In addition to his academic responsibilities, Kleinwächter was involved in various government and civic activities. His research specialization was in industrial organization and comparative economic systems.⁵⁵ After his graduation from the University of Vienna, Joseph A. Schumpeter (1883–1950) began his illustrious career as Privatdocent (assistant professor) at Chernivtsi University, where he stayed from 1909 to 1911.⁵⁶ Schumpeter was succeeded by a Swiss German, Alfred Amonn (1883–1962) from Freiburg University, who lectured at Chernivtsi between 1912 and 1919.⁵⁷

There were other Ukrainian economists active during the period under discussion who were not mentioned on the preceding pages. They can be classified in the following three groups: (1) ethnic Ukrainians associated with universities outside Ukraine; (2) individuals in Ukraine not associated with universities and government but showing interest in political economy;

(3) government statisticians-economists in Ukraine influenced by the German historical school. Selected economists belonging to these groups will be discussed below.

Semen Desnytsky (born in the late 1730s or the early 1740s and died in 1789) came from a burgher family of the city of Nizhyn.⁵⁸ He briefly attended gymnasium and university in Moscow and was selected to study on a government scholarship abroad. He left for England in 1761 and studied for six years at Glasgow University. Among other courses, Desnytsky attended the lectures on Moral Philosophy given by Adam Smith which contained many of the ideas that appeared subsequently in *The Wealth of Nations*. After his return to Moscow, Desnytsky was appointed to the law faculty at Moscow University. In his writings on economic problems Smith's influence is felt. Like Smith, Desnytsky divided human history into four stages and related each stage to the form of property ownership. Similarly, he was in favour of complete freedom in economic affairs. However, unlike Smith, Desnytsky saw a greater need for governmental intervention under certain circumstances (Bak, 1955, pp. 578–79). Although he wanted to improve the living conditions of serfs, Desnytsky stopped short of advocating their complete emancipation. Many of Desnytsky's ideas were influential in Catherine II's formulation of reforms proposed in 1768.⁵⁹

Mykhailo Baluhiansky (sometimes spelled Baludiansky) (1769–1847) was born in Olshava, Transcarpathian Ukraine, and educated at the University of Vienna, from which he received a doctoral degree in jurisprudence in 1776.⁶⁰ After a short stay at the university at Pest, he was invited by the Russian government to St. Petersburg. There he taught at various higher educational institutions and between 1819 and 1821 was the first rector of St. Petersburg University. After resigning that position he remained there as professor of economics. Throughout his career, Baluhiansky worked for the government in various capacities and was for a time a close associate of the well-known reformer M. Speransky. He wrote a great deal on law, administration and economics (monetary systems, taxation, agriculture and other problems) (Baranov, 1882; Baitsura, 1971; RBS, vol. 2, pp. 451–55).

Ivan Ianzhul (1845–1914) was born in Kiev gubernia. He completed Moscow University from which he received master's and doctoral degrees (ES, vol. 41, part 2, pp. 667–69). During his lifetime, he made several trips to Western European countries, most often to Great Britain, and also visited the United States. After his studies, Ianzhul was associated with Moscow University where he eventually was awarded the title of Honored Professor. In 1895 he was elected to the Imperial Academy of Sciences as an academician. His specialty was financial and labor laws. He was an adherent of the historical school in economics and also of Katheder Socialism. As a result, Ianzhul advocated broad governmental intervention in economic life. His work, "Fabrychnyi byt Moskovskoi gubernii" is considered pathbreaking with

respect to the governmental supervision of working conditions in industry and social legislation in general (Karataev, 1956, p. 191). In his younger years, Ianzhul served as factory inspector and maintained interest in this area throughout his life. Ianzhul was a prolific writer of scholarly and polemic works.⁶¹

Maksym Kovalevsky (1851–1916) was born in the Kharkiv province and was educated at the local university as well as the universities of Vienna, Berlin, Paris and London (URE, 1979, vol. 5, p. 248). He was professor of law in Moscow University (1878–87) and St. Petersburg University (1905–16). During his exile years between 1901 and 1905 Kovalevsky lectured at Stockholm, Oxford and other foreign universities. He was elected to the Imperial Russian Academy of Sciences and several other academies and scholarly societies. Although he specialized in law, history and sociology, Kovalevsky is included in the history of economic thought (e.g., Karataev, 1956, pp. 148–50) primarily on the strength of his fundamental studies on the origins and development of *obshchina* in East Europe and primitive communism in general. Kovalevsky was also involved in political activities and contributed significantly to the rebirth of Ukrainian scholarly and political life.⁶² He published extensively and many of his works were translated into foreign languages.⁶³

Oleksander Myklashevsky (1864–1911), a younger brother of Ivan Myklashevsky at Kharkiv University, was born in Chernihiv gubernia (ES, vol. 19, p. 249). He was educated at Moscow University and subsequently became professor of economics at Dorpat (presently Tartu) University. For a while, he served there as the dean of the law faculty. He traveled to various countries, including the United States. Myklashevsky's views on methodology were influenced by the trend toward business cartelization at the end of the nineteenth century. Although initially an adherent of the classical school, he became sympathetic to the younger historical school. His main work was, however, on monetary economics and labor problems.⁶⁴ He is considered, along with I. Kaufman of Moscow University, and V. Zheleznov of Kiev University, the most important contributor to this field of monetary economics in pre-revolutionary Russia (cf. Vlasenko, 1963).

Petro Liashchenko (1876–1955) was born in Saratov to a family of Ukrainian origin. He completed his studies at St. Petersburg University at which he also began his academic career.⁶⁵ At various times, Liashchenko was associated with educational and research institutions in Tomsk, Rostov, Moscow and Kiev. In 1943 he became corresponding member of the USSR Academy of Sciences and in 1945 was elected academician of the Ukrainian Academy of Sciences. In that year he began his association with the Institute of Economics in Kiev. Liashchenko is best known for his three-volume work on the economic history of Russia and the USSR which was translated into foreign languages.⁶⁶ However, before the Revolution Liashchenko specialized

in agricultural economics. He wrote voluminously during this period on the following topics: production, prices, and domestic and international trade of grains; land use and land prices; agricultural production associations; crop insurance; agricultural credit; agricultural statistics; agrarian policies.

The group of nonprofessional economists includes Tadei Rylsky (1841–1902), a prosperous landowner. He showed interest in theoretical economics, and his main work contains a good analysis of the theory of value (Brover, 1928).⁶⁷ Also Volodymyr Navrotsky (1847–82), one of the few representatives of Western Ukraine mentioned in this volume, was not a professional economist. He was a government employee, but in a number of his many newspaper and journal articles he investigated the reasons for poverty in his native region. His economic views were no doubt influenced by socialist sympathies.⁶⁸ Another member of this group of nonprofessional economists was Serhii Podolynsky (1850–91).⁶⁹ He was a physician by profession, but was also concerned with social and economic conditions in the Tsarist Empire and particularly in Ukraine. This led him to the study of socialist, especially Marxist economics, on which he published books and several articles.⁷⁰ Finally, to the group of non-academic economists belong some statisticians-economists who worked primarily for the provincial self-governments (*Zemstvo*). They were strongly influenced by the younger historical school and concentrated on empirical investigations of various social problems, most often connected with agrarian conditions. In their works, these writers employed not only statistics, but also included a great deal of geographical description with the elements of historical investigations. The following among these scholars deserve mention: Opanas Shafonsky (1740–1811) (URE, 1979, vol. 12, p. 368; Borovoi, 1961), Dmytro Zhuravsky (1810–56) (Ptukha, 1951; Bohachenko, 1956), Pavlo Chubynsky (1839–84), Oleksander Rusov (1847–1915), Petro Chervinsky (1849–1931), Oleksander Shlikevych (1849–1909), Vasyl Varzar (1851–1940), (Loboda, 1961), and Anton Borynevych (1855–1946) (Bohachenko and Mozharovsky, 1970).

Economic Schools in Ukraine

In this section, the prominent Ukrainian representative of economic schools will be discussed in greater detail. There were already writers in Ukraine who were interested in physiocratic ideas, for example, Iakiv Kozelsky (born around 1730, the death date unknown) (Boholiubov, 1956), Vasyl Karazin (1773–1842) (Sliusarsky, 1856),⁷¹ Oleksander Sturdza, Jean Nicolas Demole (Bachynsky, 1928). There were also followers of mercantilist school in the persons of Symonovych and F.B. Unhern-Shternberh (Bachynsky, 1928). The views of these writers cannot be discussed here because most of their works are not available in the West. Therefore we shall limit our discussion to the following five economic schools: classical, old historical, young historical,

Marxist, and marginalist. Ivan Vernadsky has been selected as representative of the classical school. Hryhorii Tsekhanovetsky represents the older historical school; Mykola Bunhe, the younger historical school (although he was, more accurately, an eclectic). Mykola Ziber and Roman Orzhentsky are representatives of Marxist and marginalist schools, respectively. Legal Marxism, a relatively popular school in Ukraine at the turn of the century, will not be discussed here. M. Tuhan-Baranovsky, one of its founders, is relatively well known in Western literature (cf. Amato, 1984).⁷² The selection of these economists was based not only on their importance, but also on the availability of at least some of their works in the West.

The economists under discussion wrote a great deal about economic theory and the economic and social conditions of their time. This chapter will analyze their views on economic theory and methodology. Only representative views of each economist will be discussed, but the presentation should be sufficient to suggest the flavor of a given economist's writings and to allow an evaluation of his scholarship. The discussion of each of the five economists will be preceded by a short biography.

Ivan Vernadsky (1821–84) can be considered a representative of the classical school of economics in Ukraine.⁷³ Among Vernadsky's economic books, the (1858) outline of the history of economic thought will serve as a basis for the analysis of his economic views. He was a convinced laissez-faire economist and analyzed all other economic schools from this point of view. For him, mercantilism was simply a set of prescriptions for the economic policy of 17th and 18th century European governments. Since foreign trade was of the highest priority in England, its writers dealt primarily with ways of improving England's balance of payments. Italian mercantilists focused their attention on money supply; German Kameralists, on taxes and state budgets (1858, pp. 223–24). Interestingly, Vernadsky makes no reference to mercantilism in Russia, where such views were quite influential in government policies during the first half of the eighteenth century and where even a minor contributor to this field, I.T. Pososhkov, was active. By pointing to these differences in mercantilistic policies among the states concerned, Vernadsky suggested that the frequent description of the objectives of this economic school as simply the enhancement of state power (among recent writers, see Heckscher, 1935) was too general. Furthermore, better developed nations, such as England, by influencing foreign trade, attempted to improve the welfare of their own populations (Vernadsky, 1858, p. 31). A similar position is taken by a more recent writer (cf. Gerschenkron, 1969, pp. 3–4). Regardless of the objective, Vernadsky was critical of mercantilistic policies, and believed them to be harmful to the development of the nations involved. As an example he cited the Netherlands, which, he said, started to decline after the introduction of a state monopoly in foreign trade in the seventeenth century (1858, p. 43).

On the other hand, Vernadsky spoke approvingly of the physiocrats' efforts to reduce economic principles to a theoretical unity, based on the philosophical idea of natural order in economic life. However, in his view, they were wrong in its application because of their exclusive focus on agricultural activity: "Physiocrats discovered the real nerve of [economic] science, but they did not know how to use it" (1858, p. 77).

As was to be expected, Vernadsky's hero was Adam Smith. He noted that various aspects of the laissez-faire doctrine associated with Smith were discussed earlier by various writers. For example, Antonio Serra (his book published in 1613) wrote on the advantages of free trade (1858, pp. 45–46) and Cesare Beccaria (1735–93) on labor as the source of value and on the importance of the division of labor (1858, pp. 112–14). Having pointed to the contributions of Smith, the founder of classical economics, Vernadsky did not hesitate to show the weaknesses of *The Wealth of Nations*: Smith does not organize topics logically; he introduces too many and unnecessary digressions; he does not distinguish between more important and less important matters; he includes such incorrect statements as that the increase in wages will lead to a proportional increase in prices of commodities; he errs in stating that capital can be accumulated in the private sector only; finally, he makes a spurious distinction between productive (material) and nonproductive (nonmaterial) labor (1858, pp. 139ff.). Interestingly, Vernadsky did not object to Smith's contradictory formulation of the theory of value.

Among Smith's immediate followers, Vernadsky praised T.R. Malthus and J.B. Say. He also held Ricardo in high esteem, especially for his theory of rent and a rigorous formulation of the labor quantity theory of value, which Vernadsky considered to be superior to that of Smith. However,

Ricardo's work cannot be called practical; it is not even systematic, but a beautiful and clever analysis of fundamentals of economics. Unfortunately, briefness of exposition, lack of examples and clarifications, and the mathematical precision of the development of propositions make his book very difficult to read, although at the same time one must admit his logical consistency and the depth of his views (Vernadsky, 1858, p. 156).

A rather strange criticism on the part of a scholar.

At the time Vernadsky wrote the book under discussion, he seems to have been familiar only with the early works of K. Ch. Krause, W. Roscher, and K. Knies among the voluminous literature of the historical school of economics. His review of this important school is, as a result, less thoughtful than his discussion of other schools. Vernadsky did not discuss important methodological differences between this and classical schools, which have been of interest to economists. He limited discussion of the historical school to criticism of its pessimistic attitudes toward the applicability and reliability of economic theory as a policy advisor and guide to governments (1858, pp.

185–87).

Vernadsky's criticism of economic schools advocating governmental intervention in economic life was more thorough. He termed one of these schools, represented by the German economist Friedrich List, protectionist, and his attitude toward it was negative. Vernadsky opposed the school's argument that productive forces would develop faster under conditions of protective tariffs. He argued that, on the contrary, historical records showed that the economic growth of a country has been most often proportional to the growth of its foreign trade (1858, p. 200). In practical terms, Vernadsky opposed the introduction of protective tariffs in the Russian Empire on the following grounds.⁷⁴ First, although the Empire at that time was even less developed in comparison with Great Britain than List's Germany, he believed that young Russian industry would nevertheless be able to compete with advanced English industry, which was considered to be the main beneficiary of free trade, primarily because of the structural advantages of the former (Karataev, 1957, p. 69). Second, only a competitive environment would be conducive to the growth in productivity of the Empire's expanding industry (Tsagolov, 1958, pp. 447–48). For Vernadsky, protectionists "have more in mind a political goal—independence of their nation, its might—than purely economic goals and personal freedom" (1858, p. 200). In many ways, he thought, they resembled discredited mercantilists.

Vernadsky disagreed even more with socialist writers. He thought that economists of this school, for example Sismondi, were concerned with social conditions at the expense of the growth of output (1858, pp. 216–17). In general, Vernadsky considered socialist economists well-meaning people, but thought that their work was guided more by emotions than the requirements of scholarship (1858, p. 220). However, as was pointed out by another writer, Vernadsky made an exception with respect to Saint-Simon and his followers, whose ideas contributed to a better understanding of the role of banking, finance and poverty.⁷⁵

Vernadsky was not against governmental intervention under any circumstances. Nonintervention was desirable when markets are already free from feudal institutions and mercantilistic obstacles. He felt it was the government's obligation to effect such conditions. In mid-nineteenth-century Russia, this meant first of all the abolition of serfdom. Vernadsky was at the forefront of those who argued for the emancipation of peasants, adequate allocation of land to them, and low compensation of landlords (Tsagolov, 1956, pp. 383–84). Furthermore, he was against the *obshchina*, because of its restriction on the mobility of agricultural labor. He also opposed the concentration of land holdings in agriculture, because he believed that it was detrimental to the growth of productivity and diverted capital from industry, a preferable sector for economic development (Tsagolov, 1956, pp. 376–77).

The book under discussion gives quite a clear picture of its author. Vernadsky was a well-educated scholar and thoroughly acquainted with Western European economic literature. His presentation was somewhat selective: he did not mention contributions of medieval schoolmen, but probably devoted too much space to minor Italian economists of more recent years (perhaps because he wrote a dissertation about them). Surprisingly, the book paid only slight attention to the theory of value as presented by various authors, a favorite subject of Vernadsky's contemporaries. He treated this subject extensively in another book, unavailable in the West (Tsagolov, 1956, pp. 396ff.).⁷⁶ To sum up, Vernadsky was a persistent and staunch admirer of the laissez-faire economic doctrine and of liberalism in politics, and presented his views cogently and eloquently. Being a true child of the nineteenth century, Vernadsky had faith in the perfectability of human conditions. He concluded that this improvement would not come soon, "but it can be said with certainty that the key toward the solution has been found [by economics] in terms of methodology and analysis of the basic laws of production." Much, he said, would be written in the future about these problems, but "all research will be concerned with the analysis of the relationship between labor and ownership [of capital], based on the laws of division and allocation of labor—the fundamentals of any economic activity and rational organization of society" (1858, pp. 223–24).

The older historical school in Ukraine was represented by Hryhorii Tsekhanovetsky (1833–98). Born in Chernihiv gubernia, Tsekhanovetsky was educated at Kiev University, from which he obtained master's and doctoral degrees in 1859 and 1869, respectively. Between 1859 and 1872, he was a faculty member at Kiev University and from 1873 until his death a professor of economics at Kharkiv University. Between 1881 and 1884, he served as rector of this university. During his career Tsekhanovetsky made three study tours of Western European universities. He was a thoughtful and conscientious lecturer and under his guidance a number of students at Kharkiv University worked for their master's and doctoral degrees (Voshchinin, M. Kossovsky, Kasperov, Samoilov) (Migulin, 1908, pp. 284–86).⁷⁷

Tsekhanovetsky did not publish much. Of his works only two are available in the West, and only a monograph on Adam Smith, discussed below, is of certain interest to the study of the history of economic thought in Ukraine. The other publication, a brief exposition of political economy in the form of a journal article, was intended to serve popular needs. Another book, unavailable in the West, dealing with the development of railroad transportation in the Empire, was written as a doctoral dissertation and was intended to be the first part of a two-volume work. Tsekhanovetsky never completed the second part, although he collected data for this purpose all his life. The selection of railroad transportation as a dissertation topic was certainly influenced by Tsekhanovetsky's sympathy for the historical school of

economics which emphasized such empirical work. The book argued that private ownership in this economic sector, new at that time, was not advisable. Because of its importance for the entire national economy, the railroads should be publicly developed, owned and managed. These views proved to be correct, as government took over railroads not only in Russia but also in most countries of the world even in Tsekhanovetsky's lifetime. His expertise in the field of railroads brought him an invitation in 1879 to serve on the important Baranov committee which worked out plans for the development of railroad networks for the entire Tsarist Empire (Migulin, 1908, p. 285).

In the monograph on Adam Smith, Tsekhanovetsky analyzed critically some of the most important components of the teachings of the father of modern economics. While Tsekhanovetsky's chapters on value, productivity of labor, and rent are not without interest to a student of history of economics, we shall focus on the chapter on self-interest. Here, Tsekhanovetsky attacked the following three premises by Smith: (1) people are motivated in their economic life solely by self-interest; (2) by pursuing self-improvement, people contribute at the same time to the benefit of the entire society; and (3) in order to facilitate the attainment of these two objectives, government should abstain from any interference in the economic affairs of a nation.

Discussing the first point, Tsekhanovetsky criticized Smith's generalization of human behavior:

He [Smith] took a few general traits of human nature as his premises and on their basis, using the deductive method, formulated general laws. Speaking about the individual as a producer, Smith does not distinguish national characteristics among people, does not see historical differences among them, assumes that all human beings are similar to one another (1859, p. 70).

Since Smith's theory was regarded as rationalistic, Tsekhanovetsky stated:

Abstract views of human relations, rejecting their historical development and consistency, are called rationalistic not because this approach is especially thoughtful but because it is dominated to an extreme by the power of pure reasoning based not on comprehensive observation but on relatively few facts, which are generalized into logical conclusions without confrontation with experience or observations of actual life (1859, p. 69).

With respect to point (2), Smith's idea that unrestricted human behavior toward self-improvement will lead at the same time to the benefit of all—toward the natural order—appeared to Tsekhanovetsky also to be susceptible to criticism. In addition to antisocial traits within some individuals (1859, p. 53), most people entering into economic relations with others try to improve themselves not only through their own labor, but also at the expense of others (1859, p. 56). Tsekhanovetsky rejected the notion of Henry Carey

and Frederic Bastiat, the optimistic followers of Smith, that such social behavior is transitory and should disappear with economic development, when the stage of human harmony is reached. If this harmony should prove less than ideal, however, it would be, to use Bastiat's terms, because of "perturbations" by some individuals. Tsekhanovetsky was not at all unhappy with these "perturbations"; they

are based on the sovereignty of human individuality, on [the individual's] irrepressible needs, requiring satisfaction even at the cost of others.... The salvation of a human being lies exactly in the fact that the needs always precede his possibilities; this is the source of his sufferings and also of progress (1859, p. 61).

Since Smith's rational order and Carey's and Bastiat's harmony are not feasible, the mediation of government in economic life will always be necessary, argued Tsekhanovetsky.

While rejecting complete nonintervention of the government in economic life (point [3] above), Tsekhanovetsky opposed also the other extreme: the various proposals of mercantilists, protectionists, and socialists (whom he called utopians) who wished to make government responsible for all or for most economic decisions (Tsekhanovetsky, 1859, p. 59). Without referring to J.S. Mill's ideas, Tsekhanovetsky admitted that a need for new institutions existed in certain areas of economic relations, particularly with respect to distribution (1859, p. 74). However, he felt these new relations between the government and individuals must be scientifically devised and introduced gradually without completely destroying existing institutions, which were the best that mankind had throughout its historical experience (1859, p. 73).

Having disagreed with the classical approach to the study of economics, Tsekhanovetsky expressed his preference for the historical approach. Quoting Roscher approvingly, he stated that this approach in economics is like anatomy and physiology in medicine: only a historical study of economics could suggest the appropriate cure for social and economic ills (1859, p. 71). Such a study does not

approach the subject with an a priori constructed ideal, but analyzes this subject in order to see what it was, why it was and what it might be, without requiring immediate implementation of what ought to be.... The historical method does not reject the truth of Smith's ideal laws, but traces their real manifestation. It does not condemn the past for the sake of requirements of the present. In the historical method lies the principle of consistency and judiciousness of human life (1859, pp. 71-72).

According to Tsekhanovetsky, political economy and other social sciences accepted the historical method

which can be called experimental to a higher degree because it looks at a

phenomenon not at a given moment of time, but in the fullness of its historical development, and consequently comprehends life...better. Here it is particularly indispensable, because in society no phenomenon has an isolated existence in a given moment, but represents the result of the past and the premise of the future (1859, pp. 73–74).

Tsekhanovetsky's eloquent statement ignores the fact that scientific experiments involving interesting variables are useful if the remaining variables are mostly unchangeable. Of course, one cannot say that about the historical approach.

The preceding brief discussion suggests the reasons behind Tsekhanovetsky's preferences for historical methodology in economics. However, unlike the orthodox followers of the historical school, who argued "that the organon of scientific economics should mainly—at first it was held that it should exclusively—consist in the results of, and in generalization from, historical monographs" (Schumpeter, 1961, p. 807), Tsekhanovetsky was willing to accept classical assumptions—but only if they corresponded to human experience. On the other hand, unlike the classicists, Tsekhanovetsky rejected the analysis of economic phenomena in isolation. Thus, in this 1859 book, he anticipated the ideas of younger historical schools, the need to study every economic phenomenon in its broadest temporal and causal relations (Schumpeter, 1961, p. 812).

Mykola Bunhe (Bunge) (1823–95) is often classified as a follower of the younger historical school of economics (Zhmdsky, 1959, p. 249), although his views can be more appropriately described as eclectic. He was born into a physician's family of German ancestry in Kiev, where he obtained a law degree from the university in 1845. He earned a master's degree in 1847 and doctorate in 1852 from the same university. Bunhe began teaching first at Nizhyn Liceum, and in 1850 was appointed to the faculty of his alma mater at which he taught various economics-related courses until 1880. His teaching career was interrupted by various administrative appointments at the university and government. Bunhe was appointed rector of Kiev University for the period 1859–62, and was elected twice to this post, for 1871–75 and 1878–80 (ES, vol. 4, part 2, pp. 927–29; Ein Russischer, 1900).

Because of his writings on the problem of the emancipation of serfs, Bunhe was called to serve on the committee preparing the necessary laws. He contributed substantially to the formulation of the financial aspect of the 1861 laws. The respect for his academic and civic achievements was reflected in his appointment to teach economics to the heir apparent between 1863 and 1864. Upon his return to Kiev, Bunhe found time to manage the local branch of the state bank. In 1880, he was called to serve as deputy finance minister in St. Petersburg; a year later he became minister, a post which he held until 1886. In this capacity he introduced various reforms with the aim of shifting the tax

burden, at least partially, from the poorer to the richer groups of the population (cf. von Laue, 1969, pp. 20–21). For this he was criticized by conservative elements (Kornienko, 1959, pp. 65, 67, 69). He also pioneered factory legislation, primarily by imposing various protective labor regulations. Bunhe's imposition of protective tariffs under pressure from some vested manufacturing interests is considered to have been less fortunate.⁷⁸ In 1887, Bunhe was appointed chairman of the Council of Ministers, a post which he held until his death.⁷⁹

In discussing Bunhe's views on economics, one should remember his long government service, which required him to be pragmatic in his policies. Evidently, he transferred pragmatism to the theoretical study of economics. Bunhe's eclectic approach is best expressed in the book written at the end of his life, concluding his long career as a scholar and statesman (Bunge, 1895). His high positions probably forced Bunhe to return repeatedly to the proper role of government in economic life; therefore the book is of interest not only to students interested in the development of economic thought, but also to those concerned with the intellectual background of economic development in nineteenth-century Russia. The first part of the book is devoted to the conventional historical survey of economic doctrines, while the second part contains two extensive articles, on H.C. Carey and J.S. Mill, as well as a translation of G. von Schmoller's 1883 article, "Die Schriften von K. [C.] Menger and W. Dilthey zur Methodologie der Staats- und Socialwissenschaften."⁸⁰

Bunhe supported the classical economics of Smith, Malthus and Ricardo largely because of their emphasis on labor as the source of value and on the importance of the division of labor. Bunhe's concept of labor was rather broad; he considered the contribution to output of land and capital owners, and entrepreneur as labor, and their incomes, labor incomes (Karataev, 1957, p. 142). However, he did not share the exclusive reliance of classicists on the laissez-faire principle. Bunhe expressed his views on the need for some governmental intervention in the marketplace in the following way:

The mistake of the liberal school, beginning with physiocrats and ending with Bastiat, is caused by the proposition that there exists a stable natural order of economic life, predetermined by Providence. This school errs also in accepting the free expression of private interest as a basic condition for the realization of this order and for the attainment of the welfare of the population, which depends on this order. According to this school, social calamities are caused mainly through the restriction on freedom of private activity. Actually, the economic system of human societies is not something consistent; it has developed in conjunction with the progress of education, welfare, and morals and also in connection with the expansion of social authority and of individual initiative. A well organized society is not an [exclusive] expression of freely developed private relations, as Smith's followers thought, but it is a result of a continuous

activity of government and people (Bunge, 1895, pp. 40–41).

While rejecting absolute liberalism, Bunhe was opposed even more vehemently to socialism. For him, the elimination of private property and competition, the *sine qua non* for communist society, meant the creation of “an industrial regiment consisting of eternally subservient people, including in their ranks women and children, existing as a garrison...with a discipline and loyalty excluding all free expression of life” (1895, p. 67). He was truly amazed with the success in his lifetime of Marx’s economics, full, in Bunhe’s view, of shortcomings. Still, his criticism of Marx’s theory was not particularly perceptive: he emphasized primarily unrealistic and unverifiable assumptions (socially necessary labor time, reduction of more complicated labor to the simplest labor, limiting the origin of productivity to labor only, considering some labor nonproductive) (1895, pp. 130–33).

According to Bunhe, Marx’s argument points to various ailments of the social organism, but does not prove the basic weakness of the organism, and the need for its complete reconstruction. The facts assembled by Marx would serve a purpose if certain conclusions could be reached on their basis. In reality, however, these facts are intended to influence people not accustomed to the use of scholarly evidence, and to incite their hostility to the existing system. Bunhe concluded:

In order to prove that wages are in many instances very low, that in competition the stronger or richer wins over the poor, that large-scale production is cheaper and the small-scale enterprise is doomed to disappear, it was not necessary to construct a new theory of labor, which really explains nothing. This theory is not based on the factual study of reality but on propositions used as axioms, while these propositions are not more than hypotheses which cannot withstand criticism (1895, pp. 152–53).

Bunhe and his contemporaries in Russia were particularly impressed by the ideas of Carey and, to a lesser extent, of his European follower, Bastiat, for two reasons. First, in view of the bleak economic and social conditions in Russia, Carey’s optimism as to the final outcome appealed to reform-minded economists. Second, Carey’s analysis was based to a great extent on the experience of a young and dynamic American economy, which in many ways resembled the as yet unrealized economic possibilities in Russia.

Unlike classical economists, Carey rejected the view that the future would be dismal. He was optimistic with respect to economic development. For him, the accumulation of capital was bound to lead to an increase in labor productivity, wages, and national income. As a result, the absolute returns to labor and capital would rise and the economic interests of all participants would be in harmony: those, as Carey said, of landowner and tenant, capitalist and worker, plantation owner and slave. Such harmony will prevail if all concerned are economically strong to the same extent. However, since such an

equality is impossible, the richer and stronger must not take advantage of the poor, and must conduct their business in accordance with accepted laws and morals. The government should not intervene internally in economic life, but, on the other hand, should impose protective tariffs in foreign trade if necessary.

Bunhe was skeptical about the workability of the model. He did not believe that the harmony of interests of all was possible even if the rich behaved according to sanctioned laws and morals. He asked in what way Astors, Goulds and Rockefellers have accumulated their millions, if not at the cost of others? Adversities among people must exist, even if they are not openly expressed. Therefore, Carey's concept of harmony as automatic, as long as the government stays away from the marketplace, was illusory. According to Bunhe, every economic system is the result of long historical development and represents the coexistence of various antagonistic interests. It can only survive thanks to the moral authority of the government; if moral authority from above is insufficient, then the government has to ensure forcibly the continuation of the system (1895, pp. 310–11).

Bunhe's views on the relationship between government and the individual in economic life was also in the foreground in his discussion of J.S. Mill's theory of distribution. Mill agreed with the classical economists that production laws at a given state of technology are as objective as physical laws. He disagreed with them with respect to the laws of distribution, and argued that distribution rules can arbitrarily be devised by a society on the basis of some philosophical criteria. Since Mill was a warm-hearted humanitarian, he thought that socialist institutions derived in an evolutionary manner would be the most appropriate for the people's benefit (cf. Schumpeter, 1961, p. 531). Bunhe rejected this proposition on the ground that any tampering with wages and profits may endanger the supply of labor and capital, with a negative effect on the level of output, and thus on the attainment of a basic economic objective—the maximum satisfaction of human needs. Furthermore, an individual does not live in isolation and cannot claim his entire production for his own use. He lives within, and has obligations to, a society, and is subject to its constraints. As a result, there has always been, historically, a mix between private and public sectors, although the proportions between them have varied over time. The proportion is optimal when it facilitates human progress most. The corresponding institutions of distribution existing under such a system can also be considered optimal (1895, pp. 346–50).

Bunhe's translation of Schmoller's review of a book by Menger closed the work under discussion. It is not a literal translation: Bunhe summarized the exposition in some places and inserted his own views in others. Clearly, he sympathized with Schmoller. To further Schmoller's criticism of marginalists, Bunhe accused the latter of not keeping their promise to advance economic

science, since no works of importance were produced by them (1895, p. 465). Bunhe left this statement unchanged when he revised the entire manuscript in 1894, by which time the marginalist school had won decisive influence in mainstream economics. Apparently, age and official duties did not allow Bunhe to keep up with economic literature in the later years of his life.

Reviewing Bunhe's economics, one cannot escape the impression that his scholarly approach was decisively influenced by his practical experience. In his official capacities, he had to mediate among the conflicting interests of various industrial groups, regions, and governmental branches and to make compromises acceptable to all. He looked at various economic schools and took from them what he thought best, and the best, for him, were those economic propositions that could help him solve practical problems. Consequently, Bunhe insisted on the empirical verification of these propositions. Bunhe left a more lasting mark as a university administrator and finance minister than as a scholar. He was an outstanding rector and enjoyed great respect from his students through difficult times ("Ein Russischer," 1900, p. 332). He was an excellent finance minister because of his thorough knowledge of economic conditions in the advanced West, which enabled him to introduce reforms in his own country. Although he might have been overshadowed in the capacity of finance minister by his successors, I. Vishnegradsky and S. Witte, Bunhe had the sense of social responsibility and consciousness that Witte, for example, lacked (Baranovsky, 1915, p. 148). In general, he was "a rare example among us of a very honest and diligent economic scholar, combining a moderate liberalism with the loyalty and efficiency of a good official" (Baranovsky, 1915, p. 146; Karataev, 1957, p. 144). Bunhe was a patriot of the Russian Empire, "but he disapproved of all chicanery against national minorities on the ground of their language or religion and in private life [facilitated] unlimited freedom for all groups" ("Ein Russischer," 1900, p. 336).

One of the more interesting economists in nineteenth-century Ukraine and a prominent representative of the early Marxist school was *Mykola Ziber* (1844–88) (Kleinbort, 1923, pp. 11–19; Reuel, 1937, pp. xxxvi–xI). He was born in Sudak in the Crimea. His father was a Swiss citizen while his mother's background is not clear.⁸¹ Zibert was educated at the department of law at Kiev University, where he showed a particular interest in political economy. After receiving a master's degree there in 1869, Ziber studied at various Western European universities for three years. He returned to Kiev in 1873 and joined the faculty of his alma mater, but resigned in 1875 and went abroad, staying mainly in Switzerland. In 1884, Ziber became mentally ill and returned to his closest relatives, under whose care he died in Yalta.

Despite a scholarly career of only about fifteen years, Ziber left a substantial body of work behind. Most of his contributions were published in two incomplete collections, one before, and the other after, the Revolution

(Ziber, 1900, Ziber, 1959). The pre-revolutionary edition is more comprehensive with respect to shorter works,⁸² but does not include Ziber's two main contributions: *David Rikardo i Karl Marks v ikh obshchestvenno-ekonomicheskikh issledovaniiaxh* and "Ocherki pervobytnoi ekonomicheskoi kultury," which are included in the post-revolutionary edition. The former work is the combined result of Ziber's master's thesis and a long article.⁸³ It was published as a separate book in 1885, and reissued in 1937. While this book deals with the theory of value, primarily in the formulations of the two authors included in the title, the latter book analyzes the economic experience of primitive societies, and more properly belongs to anthropology than economics.

Rikardo i Marks is important as the first major world review of Marx's *Das Kapital*, vol. 1 (1867). Marx seems to have been satisfied with this review for its theoretical consistency, as he stated in his introduction to the second edition of the first volume of *Das Kapital*. (Incidentally, Marx used the German spelling of the author's name, Sieber.) However, Ziber's work was of special historical importance in Russia. Although *Das Kapital* had been translated and published in Russian by 1872, Ziber's contribution was more comprehensible than the original and was accessible to a large number of people. Thus it became one of the main sources for disseminating Marx's ideas in the country that was to become the first to adopt Marxism as an official ideology.

Ziber's *Rikardo i Marks*, written before the appearance of the second and third volumes of *Das Kapital* (1885 and 1894), can be divided into two parts.⁸⁴ The first part, comprising three chapters, deals with various concepts of the subject and methodology of political economy; with the development of the theory of value, culminating in its formulation by Ricardo; and with discussion of theories of value other than the labor theory, especially of the cost of production theory. The second part is devoted to an exposition of Marx's labor theory of value. While the first four chapters of the second part closely follow Marx's analysis, the remaining six chapters accomplish this exposition more loosely. Here Ziber introduces various digressions and comments. The book shows the formidable erudition of the author. Ziber was familiar with most economic works of the time in several languages. However, his exposition was often too long and difficult to follow, and his digressions also make the reading occasionally difficult.

Ziber lived at a time when the remnants of the social and economic injustices of medieval society were being supplemented by those caused by the industrial revolution. Since the nineteenth century was a century of rationalism, he believed that these injustices would be ameliorated through the introduction of appropriate reforms based on an understanding of the workings of social forces. Furthermore, existing social conditions, named capitalism by Marx, were believed to be but a stage in human development that was bound

to develop into a higher stage.

Thus, in the study of economics, Ziber preferred to follow what he called the English rather than French approach, since, he believed, the former emphasized the analysis of the entire national economy while the latter focused on the individual enterprise (1959, vol. 1, p. 45ff). Today we would call them, respectively, macroeconomic and microeconomic approaches. Such basic problems as coordination among specialized production units, their interdependence and mutual influence, could be understood only within the framework of the entire national economy. The approach required the study of representative phenomena which are averages of large numbers and are consistent and continuous over the long term (1959, vol. 1, p. 47). Ziber considered that consumption, distribution, and production constituted a conceptual whole, with production being the most important among them. Since production is governed by the theory of value, he devoted his book to this problem, especially to the formulation of value theory by Ricardo and Marx. However, before turning our attention to Ziber's analysis of the labor theory of value, let us first consider how he disposed of the alternative theories of value.

First, Ziber discussed the proposition that the value of an object is determined by the capacity of this object to satisfy human needs. The proposition in this form is a purely psychological concept. It becomes an economic phenomenon if such a psychological state leads to an economic activity (1959, vol. 1, p. 60) (Ziber presumably means the use of scarce resources). In an economy with division of labor, if commodity A is produced by a producer in excess of the amount necessary to satisfy his own needs, this excess will have zero utility for him. To satisfy some of his other needs, he will wish to exchange the excess of A for commodity B produced also in excess by another producer. Obviously, the level of utility per unit of each commodity will not be equal in the exchange for either of the two producers, but under the assumption that a unit of commodity A exchanges for a unit of commodity B, their values (prices) will be equal.

Looking now to the long-run equilibrium of an economy with normal conditions of supply, Ziber concludes that

[A]ll commodities fulfill their objectives [satisfying human needs] in the same way, and since each of them serves qualitatively specific needs, each different from the other, there could be strictly speaking, no comparison among these commodities...the importance of all these commodities for economic well-being is the same, and the equality of these importances is based entirely on the fact that satisfaction of each need is achieved to the same degree (1959, vol. 1, pp. 56-57).

In other words, in view of the equal utilities of these commodities, some other criteria, such as labor spent on their production, must make a commodity

more or less valuable. Ziber admitted that in a dynamic economy, one can expect disturbances in supply or demand and that, as a result, the utility of a commodity to consumers may temporarily rise or decline. However, competition will establish the equality of utility of all commodities (1959, vol. 1, pp. 63–64). Obviously, Ziber's formulation of equalization of utilities for consumers is wrong in this form.⁸⁵ It would be acceptable now if he had added that the utility of each commodity per last unit of money spent on it is equal to consumers. Next, Ziber rejected the cost of production theory as proposed by Adam Smith and David Ricardo and subsequently developed more fully by John Stuart Mill. Ziber claimed that the Smith and Ricardo theory is based on circular reasoning; that is, first, that the price of agricultural commodities depends in part on the land rent, the residual after subtracting all costs from the price of these commodities, and, second, that wages co-determine the price of commodities, but at the same time depend on the price of subsistence goods (1959, vol. 1, pp. 128–30). Mill, on the other hand, argued that wages and profit determine the price of products, while they themselves are determined by supply and demand. Ziber claimed that Mill confused an individual producer with the entire national economy. For the former, the price of his product may indeed rise as a result of an increase in wages or profits caused by supply-and-demand conditions, but for the entire economy, the wage increase will be offset by the corresponding decrease in profit and vice-versa, without any effect on price (1959, vol. 1, pp. 140–41).⁸⁶

In this case, Ziber appeared to be following the well known argument by Ricardo (cf. Schumpeter, 1961, p. 592). While Ziber conceded that the cost of production theory may be a useful point of departure for the determination of value, he dismissed the validity of supply-and-demand theory for this purpose as proposed by James Steuart, Thomas Robert Malthus, and particularly by H.D. Macleod. In view of its dependence on demand conditions, this theory, to Ziber, was nothing but a masked theory of comparative urgency of needs (utility), which, as we saw, he considered incorrect (1959, vol. 1, p. 144). Ziber agreed that as a result of changes in supply or demand, the value or price (here he used these two concepts interchangeably) of a commodity may temporarily change, as in the case of utility. In the long run, however, there will be a tendency to return to the normal level of value or price reflecting the amount of labor used for production of the commodity in question (1959, vol. 1, p. 149). Having rejected alternative theories of value, Ziber accepted the quantity labor theory of value as correct.

The formulation of this problem [the labor theory of value] by the Smith-Ricardo school was but one step from that presentation of the subject which with respect to clarity, precision, and determination leaves nothing to be desired. The merit for discovery of this formulation, together with a number of important supplements to this theory, belongs to a German economist K. Marx (1959, vol. 1, p. 167).

According to the well-known formulation of the labor theory of value, commodities exchange according to the socially necessary labor time required for their production. In other words, commodities differ quantitatively with respect to the amount of live and stored labor in capital goods, assuming that both are most efficiently used. To have value, a commodity must be useful, and as such, it is qualitatively different from all other commodities. Since this study cannot hope to reproduce Ziber's presentation of Marxian theory in its entirety, it will discuss a few aspects of the labor theory of value to exemplify Ziber's approach.

Since the publication of Ricardo's *Principles of Political Economy and Taxation*, his theory of value has been interpreted by some as being the labor theory of value (values of commodities are proportional to the quantities of labor) and by others as the cost of production theory of basic factors of production (cf. Stigler, 1965a). This ambiguity is also evident in the exposition of Ricardo's theory by Ziber. When Ziber presented Ricardo's explanation of the rates of exchange between commodities, he wrote in the spirit of the labor theory of value (1959, vol. 1, Chapter II, especially pp. 104, 108–109, 110). When, on the other hand, Ziber's attention was focused on the problem of the relationship between wages and profit, his presentation resembled the cost of production theory (1959, vol. 1, Chapter VII, especially pp. 318–20). Ziber insisted, however, that there was no ambiguity in such a presentation: it is simply a problem of definition. What some scholars call labor as a source of value, others call the cost of production. According to Ziber,

Ricardo himself is absolutely entitled to utilize these two expressions interchangeably, because they represent to him the same phenomenon, but from two different points of view. From the point of view of society as a whole, exchange proportions are determined, according to him [Ricardo], by labor. From an entrepreneur's point of view, the same phenomenon accepts characteristics of the cost of production, by which is meant mainly expenditures for wages and average or usual profit. The former and the latter represent the result of labor and both enter as component parts into the final product. Consequently, labor included in both and labor included in the final product are identical (1959, vol. 1, p. 344).

Such a solution was possible for Ziber in view of his conviction that the source of all value is labor, and since the profit (surplus) is a part of value, it is also created by labor (1959, vol. 1, p. 345). The above quotation would suggest that Ziber was basically in favor of interpreting Ricardo's theory as a labor theory of value.

Even if one agrees with such an interpretation, the question arises whether this theory was the same as that of Marx. According to Schumpeter (1961, pp. 590ff), a fundamental difference exists between the two versions of the labor

theory of value. Ricardo introduced his theory in order to explain the long-run exchange rates between commodities, "but for Marx...the labor quantity theory was no mere hypothesis about relative prices. The quantity of labor embodied in products did not merely *regulate* their value. It was the *essence* or *substance* of their value. They were congealed labor" (Schumpeter's emphasis) (Schumpeter, 1961, p. 596). Ziber seems to lean in the direction of Ricardo in this instance. In discussing the continuity and stability of economic phenomena, Ziber stated,

Everywhere and always a substantial part of the subsistence means was produced in no other way than with the help of labor. Exchange not based on the equal quantities of labor would have led to an absorption of some economic forces by others, with the effect that [this situation] could in no instance have lasted over the longer period of time.... Thus, while various factors of different dimensions participate in the establishment of exchange proportions, the factor on which the entire economic system depends is labor. Once the consistency of exchange phenomena is recognized—and it cannot be rejected since it represents a statistically observable fact—then it should also be accepted that the force underlying these exchanges is equally consistent, continuous, and general. This force could only be labor (1959, vol. 1, p. 109).

According to Ziber, Ricardo not only defined precisely the labor theory of value, but also identified the origin of net profit (1959, vol. 1, p. 344). Net profit does not originate in the price of a commodity as a result of a transaction between seller and buyer nor as the interest rate on investment in variable capital—mainly workers' wages—as some economists suggest. Ricardo showed that net profit has its origin in the workshop, as a result of the productivity of the labor of hired workers. In view of these observations by Ricardo, Ziber asked, "What remained to be added by the author of *Das Kapital*, except to make more precise, detailed, and comprehensible formulation?" He answered, Marx had added, "that the productivity of labor of a hired worker...represents the result of the application of additional work during the duration of the additional time period for the production of surplus value or products" (1959, vol. 1, p. 343). Furthermore, Ziber believed that "the theory of origin of net profit or surplus value in connection with the general theory of value represents the core of *Das Kapital*, while its other contents are no more than the development of details and elaboration of both [Ricardo's and Marx's] theories" (1959, vol. 1, p. 331).

By accepting the preceding formulation of the labor theory of value and, in particular, the origin of surplus value, Ziber seems one-sided. On various occasions, both Ricardo (cf. Stigler, 1965a, pp. 331–32) and Marx (cf. Robinson, 1957, p. 18) admitted that the increase in the amount of capital used with labor for the production of a commodity will increase the value of this commodity in excess of the cost of capital. To use Joan Robinson's

expression, "Whether we choose to say that capital is productive, or that capital is necessary to make labor productive, is not a matter of much influence" (Robinson, 1957, p. 18).

In discussing the Ricardian and Marxian theories of value, Ziber did not show much originality, his primary objective being to make these theories more accessible to Russian-speaking readers. In one case he did reveal his perceptiveness. While discussing the concepts of the rate of exploitation (surplus value of the variable capital), profit rate (surplus value to the sum of variable and constant capital), and the organic composition (surplus value to variable capital), Ziber observed that Marx postulates the tendency toward the equality of the exploitation rate throughout the entire economy as a result of competition among capitalists (1959, vol. 1, p. 356). Since the equalization of profit rate is empirically observable, these two rates can be equal only in the case of equality or organic composition of capital between industrial branches, which is of course not true. Noticing this inconsistency, Ziber did not try to reconcile it, but simply stated that Marx promised to explain it in the third volume (1959, vol. 1, p. 361).⁸⁷ This explanation appeared after Marx's death, and satisfied few economists. After the appearance of the third volume, the question was discussed by E. von Böhm-Bawerk, in 1896, and L. von Bortkiewicz, in 1905 (cf. Sweezy, 1942, pp. 70–71), and has often served as an important argument against Marx's labor theory of value. Ziber probably was the first to emphasize this problem, on the basis of the first volume of *Das Kapital*.

Not surprisingly for the former student of Karl Knies at Heidelberg University and for an admirer of Karl Marx, Ziber devoted much of his attention to *Stufenlehre* because, "of all theories of human development those which claim that human progress has already reached its peak are the least scientific."⁸⁸ According to him, the primary reasons for human progress are changes in economic conditions, because they are decisive for mankind's survival (1900, vol. 2, p. 621). Among the multitude of economic factors responsible for progress, the most important are changes in the division of labor caused by increased specialization, which, in turn, requires a new mechanism for the coordination of decision making among enterprises, and subsequently for the allocation of resources among competing uses. (Ziber calls the problem of resource allocation the need for "cooperation" among producers.) He felt that this "osteology" of any economic system was the most important problem (1959, vol. 1, p. 386). Ziber considered a factor such as employer-employee relations, which was fundamental to Marx, of secondary importance (1900, vol. 2, pp. 619–20).

For technological reasons, specialization of labor, and accompanying changes in social institutions, can occur when the scale of enterprises increases. Ziber believed that this process is constantly taking place, in industry as well as in agriculture. Historically, it could be classified into separate

stages, none of which could be skipped.⁸⁹ While for Marx the transition from one stage to another usually involves a violent clash between adversary classes, for Ziber this development is evolutionary and involves the cooperation of all economic forces.⁹⁰

Ziber suggested that human progress throughout history can best be analyzed within the framework of the evolution of division of labor. He was satisfied with Marx's analysis of the development of division of labor under capitalism (1959, vol. 1, p. 385) (But in view of the above, Ziber is not in agreement with Marxian analysis of transition from capitalism to a higher stage.) Earlier periods, however, were inadequately studied not only by Marx but also by Adam Smith and other nineteenth-century writers, because they paid attention primarily to the division of labor within an enterprise and not among enterprises (1959, vol. 1, p. 386). Apparently in an attempt to fill this gap, Ziber wrote a major work, "Ocherki pervobytnoi ekonomicheskoi kultury," in which he investigated changes in economic behavior of primitive societies throughout the world. He devoted a large portion of Chapter IX of *Rikardo i Marks* to the changes in division of labor and allocation of resources in medieval cities (1959, vol. 1, pp. 388ff.).

In "Ocherki pervobytnoi ekonomicheskoi kultury," Ziber showed that the institution of communal ownership of land prevailed in most primitive societies. Under these conditions, the interests of rulers merged with those of all members, because of simple production processes. The ensuing division of labor led to the disintegration of these communities and the introduction of private ownership of land, which in turn required new coordinative and allocative mechanisms such as institutions of slavery and, subsequently, feudalistic societies in Europe. Turning his attention to the economic institutions of medieval cities, Ziber showed that at a given level of division of labor, the allocation of resources was rigorously structured by the guilds and city governments in order to maintain an equilibrium between production and consumption. However, the introduction of a further division of labor splintered guilds, on the one hand, and combined various crafts within an emerging capitalist factory, on the other. The capitalist system of resource allocation followed.

The following quotation provides a good example of Ziber's views on capitalistic development.

The basic proposition of this theory [*laissez faire*]...never existing in reality, is that the full equality of conditions of production and sales for each of the producers in the absence of any governmental intervention has supposedly been able to give the most advantageous results for all individuals, as well as for the entire society. The actual withdrawal of the government from its responsibility to manage the process of social production and the transfer of the latter into the hands of private entrepreneurs supported the validity of this theory. Nevertheless, this relationship between state and society...appears to be a

temporary historical phenomenon, as is the corresponding form of social allocation of labor. Conditions of competition among private enterprises are far from equal in reality, as is suggested by defenders of free trade and governmental nonintervention. Big capital and big industry absorb small capital and small industry every day and in this way press toward the creation of monopoly. With respect to monopoly, it again transfers the private form of production into the social form in which there certainly will be room for social authority. Moreover, several branches of industry are being managed either by the [central] government or by its subdivisions from the beginning.... In this way a twofold historical tendency becomes apparent, oriented equally toward the centralization of production and toward the transformation of the multitude of private enterprises into one united and infinitely complicated social production [system]. This entire process of economic and political development appears as an obvious proof of the truth that no matter how complicated and subdivided the participation of social labor may be, the mutual gravitation of industrial groups will overcome this division and each further step of history will lead in reality to a closer interweaving and merging of individual elements of the social-productive process (1959, vol. 2, pp. 467-68).

Obviously, this economic base, monopolization of industry, which one may assume will transcend existing political borders, will need a different political "superstructure," to use Marxian terminology. Ziber did not say much about the future economic and political system. Only in one article, in which he discussed the relationship between law and the division of labor, did he mention in passing that the future interstate congress would have the responsibility of passing laws, presumably relevant to the monopolized industries located in various member-states (1900, vol. 2, p. 619). Of course, Ziber's idea of the future had nothing in common with the Marxian dictatorship of the proletariat.

Soviet economists have difficulty reconciling these views of Ziber with his role as the first commentator and popularizer of Marxian theory in the Tsarist Empire.⁹¹ They credit him with important contributions to the development of Marxian thought in Tsarist Russia. Ziber stressed the importance of historical determinism, opposed voluntarism in economic development, and showed an understanding of the importance of large-scale production in concentrating production activities (Tsagolov, 1959, p. 85).

To a pre-revolutionary writer, Ziber was not a dialectical Marxist, but an economist favoring an evolutionary approach to economic development (Vorovsky, 1933, p. 174). Also Soviet writers stress the fact that Ziber was not a Marxist in that he had no understanding of class struggle and did not anticipate, much less argue in favour of, workers' revolution and the subsequent dictatorship of the proletariat.⁹² To one writer he was simply a remarkable scholar, interested in theoretical problems of Marxism, who ignored the application of this approach to Russian conditions (Kleinbort, 1923, pp. 43-44, 69-70). Another stressed Ziber's preference for evolutionism

and reformism in economic development, and his belief that the cooperative form of production will dominate the future concentration of production forces (Reuel, 1937, pp. xlviii–l). Finally, the most recent and preposterous comment faults Ziber for not foreseeing the future development of Marxism into what we would call today Marxism-Leninism.

Although Ziber recognized the laws of capitalism and tendencies of their development, he stopped short of the decisive part of Marx's teaching, the teaching about the universally historical mission of the proletariat as the grave-digger of capitalism and the revolutionary creator of socialist society. Thus Ziber failed to rise to genuine heights of Marxism which most profoundly and sharply distinguishes scientific socialism from utopian socialism (Tsagolov, 1959, p. 86).

In plain language, this viewpoint maintains that Ziber failed to analyze economic development in the second half of the nineteenth century from the perspective of the Moscow leadership of a century later.

The marginalist school, primarily in its Austrian variant, found its main proponent in Ukraine in *Roman Orzhentsky* (1863–1923). Orzhentsky was born in Zhytomyr to a Polish family (Ptukha, 1924–25). He completed his studies at Odessa University with a master's degree in 1887 but could not remain there as a permanent faculty member, according to Ptukha, because of his ethnic background and leftist political views. He was therefore obliged to work for the government in Odessa and to teach part-time at the university and local secondary schools. From 1907, Orzhentsky taught at Demidov Liceum in Iaroslavl while at the same time working part-time at other local schools and for the government. In 1912, he obtained a doctoral degree from St. Petersburg University. During the First World War and the Revolution, he worked for various government offices in St. Petersburg and Moscow.

In 1919, Orzhentsky returned to Ukraine and settled in Kiev, where he was elected a member of the Ukrainian Academy of Sciences and the chairman of its socio-economic department. Orzhentsky's Kiev period was characterized by intensive professional activity. He taught at various schools of higher education, conducted seminars at the Academy, organized a society of economists, directed research on such matters as household budgets, world economic conditions, and Ukrainian economics, and consistently worked on his own research. In 1922, he left for Kharkiv, the capital of the Ukrainian SSR at that time, to work for the Central Statistical Administration. Six months later, he travelled abroad on business and was offered a position as professor of economics at Warsaw University. Shortly afterward, he died in Warsaw from injuries resulting from a bomb explosion.

Orzhentsky's interests at the early stages of his professional activity were centered on problems of the theory of value and economic methodology. During his stay in Iaroslav, he devoted more of his attention to theoretical statistics. While maintaining his interest in these subjects, Orzhentsky worked

in his later years mostly on the methodological problems of political economy.⁹³

Orzhentsky's interest in the theory of value was already evident in his master's thesis.⁹⁴ In this work, he discussed views on the problem of value in general of ancient Greek and Roman philosophers and medieval theologians. He analyzed Aristotle's philosophy with a particular knowledge of the subject. Theory of value was also the topic of what was probably Orzhentsky's most important work, "Poniatie ob ekonomicheskom iavlenii," which was written strictly from the psychological-marginalist point of view. This work was submitted as a doctoral dissertation to a university (not identified in his obituary), but was not accepted. Orzhentsky's pride did not allow him to submit the same study to another university; to obtain a doctoral degree, he subsequently submitted another of his works, *Svodnye priznaki* (Ptukha, 1924-25, pp. 13-14).

Orzhentsky's "Poniatie ob ekonomicheskom iavlenii" is a good example of his remarkable scholarship and thoroughness. In it, he did not approach directly the problem of economic value, but devoted one-third of the book to a discussion of economic phenomena in general, and the next third to the analysis of various psychological theories dealing with human behavior. Only in the last part of the book did Orzhentsky focus his attention on the theory of economic value. As a justification for taking such an indirect route, he argued that the lack of a clear understanding of the concept of economic phenomena (values, wages, rent, profit) had led in the past to incorrect formulations of economic laws.

According to Orzhentsky, explanations of economic phenomena in physical terms, which were attempted in the past, failed because such phenomena are, in essence, psychological (1903, pp. 13-14). These phenomena appear when there exists a causal relationship between the consumption of a physical good or a process (service), and the feeling of pleasure or pain on the part of the consumer. This psychological effect is the reason for an individual's assigning a positive or negative value to a good, and explains why people are attracted to some and are averse to other goods. However, an individual in his activity toward the satisfaction of his needs, enters into relations with other individuals. On this basis appear economic or, more generally, social relations (1903, p. 105).

In discussing value as an economic phenomenon, Orzhentsky in general followed closely the exposition of this topic by Carl Menger. The value of an object is the projection of feeling of an individual on this object caused by its influence on him. Assigning value to a good is a discretionary act on the part of an individual (1903, p. 256). In order for an object to be classified as an economic good, the following criteria have to be present: the good must be able to satisfy one or more human needs; it must be relatively scarce so that it cannot satisfy the existing needs completely; it must be submissible to the

voluntaristic (volitional) activity of the individual; and, finally, it must be possible to compare it quantitatively with other goods (1903, pp. 312–13). The value of an economic good is determined by the utility of its last unit to an individual. Orzhentsky, inconsistent in his use of definitions, often used the concepts of marginal utility and marginal value interchangeably (cf. 1903, pp. 327ff.). Economists today prefer to use only the concept of marginal utility of a commodity and its corresponding price while the term marginal value is rarely used.

Unlike Menger, Orzhentsky did not emphasize the classification of goods into those of a lower and higher order; in his analysis, he distinguished between goods: (1) consumed directly, (2) used for production of other goods, and (3) used for exchange for other goods (1903, pp. 328–29). Rational behavior requires that if a good is to be used directly for the satisfaction of more than one need, the last unit of this good should bring the individual equal satisfaction in all uses. In the case of the use of a good for technical transformation into other goods, that is for production, the results should have equal marginal values per unit of intermediate good. Labor, a good most often transformed into other goods, according to this principle, should be allocated so that the last units of the same quality of labor bring equal marginal value (we would say, equal marginal revenue products) in all uses.

Finally, in the case of exchange, the last units of a good should exchange for the quantity of other goods, with equal utility in all transactions. The price of the good equals the cost of the goods obtained in all cases. This condition implies that in each case, obtained goods contain sufficient units of labor, so that if the price of these goods is distributed among the factors of production, each unit of the same quality labor will be equally paid. If a unit of labor is paid less in one use than in others, it will move to the production of a different good, the supply of which will increase, and the prices of the commodities in question will change. Consequently, the returns to labor will be equalized in all uses (1903, p. 330).

The above, general definition of value can be logically applied to labor. However, Orzhentsky was dissatisfied with it, and argued that:

[L]abor with respect to value occupies a special place in comparison with other values. It represents a value for its own sake and a negative one at that—because voluntaristic-conscious activity, meaning labor, appears as an internal psycho-physical condition accompanied at first by satisfaction, then by indifference, and finally by pain—while at the same time labor appears as an external indirect value and in this use a positive one. This dual character of labor leads to the result that marginal value of labor is always greater than zero (1903, p. 338).

Even if the supply of labor is so great that it becomes a free good, the fact that it is, in the final analysis, burdensome, makes its marginal value slightly

higher than zero. Another reason for special consideration of labor is the fact that in addition to natural resources, it is one of the two original resources needed for the production of goods. Since in practice labor is relatively scarce, this fact transmits the characteristics of scarcity to all economic goods. Finally, the possibility of transfer of labor from the production of one good to that of another, leads to a situation in which all produced goods enter economic life in the proportions desired by consumers (1903, p. 339).

For all these reasons, in discussing the theory of value, Orzhentsky paid more attention to the cost of production than did Western marginalists, in particular Menger. Thus Orzhentsky's theory is more fully developed than Menger's whose "preoccupation with directly consumable goods probably plays a part in the fundamental defect in this theory—the complete neglect of cost" (Stigler, 1941, p. 148). But Orzhentsky was certainly far from being an adherent of the cost of production theory or of the labor theory of value. With respect to the latter, in one of his works (unavailable in the West), he argued that labor input is not the only characteristic of goods being exchanged: utility must also be common to all of them. Two additional arguments raised against the labor theory of value by Orzhentsky were: first, it is methodologically difficult to reduce concrete quantity of labor to the abstract labor, needed of comparison between commodities and, second, no relation exists between the need for a commodity and the socially necessary labor time required for production of this commodity (Brover, 1927, p. 80). He admitted that labor is an indicator or measurement of value, but certainly not the cause of value, just as a thermometer is the indicator, not the cause of temperature.

In view of the preceding considerations, Orzhentsky in his early works rejected the view that economic phenomena, such as value, are of social origin. He felt that society is not a separate organism or something outside the individuals which comprise it; society is simply the sum of individuals, and economic phenomena are the sum of individual preferences originating in individuals (1903, pp. 356–57). He argued further that individual preferences become objectivized and socialized. Orzhentsky described this transition, saying that as a result of psychological and physiological similarities between people, their behavior, although independent, is similar and repetitive. This similarity is recognized not only by an outsider, but also by those participating in a given activity. Thus an individual economic act remains independent, yet at the same time becomes a part of typical social behavior.

Typical social behavior can, in turn, become a motivation or a norm for individual behavior. If this socialized behavior is repeated often, it attains a certain degree of stability. An individual facing the choice between an entirely independent act or this typical behavior may very well select the latter, because it offers him the advantage of familiarity and predictability of outcome. Furthermore, typical social behavior may be selected by an individual in order to avoid conflict with other members of society who act

typically. At that stage social behavior acquires a normative and even binding character (1903, pp. 360–62). However, social behavior is usually not an exclusive form of human behavior at any point of time; it coexists with the conscious and discretionary behavior of an individual, reflecting his internal interests (1903, p. 363). Of course, according to this analysis, whether we are dealing with one or the other type of economic behavior, its origin can be traced to the psychological considerations of individuals.

Even in his early work, dominated by subjectivist influences, Orzhentsky conceded that there are instances when human actions do not originate in an individual, he then accepts the behavior developed by society before he entered it. An example of such behavior is language. An individual does not invent language, but accepts it from society (1903, p. 356). In a later work, Orzhentsky extended this reasoning to a substantial part of economic behavior. His new position on the origin of economic phenomena such as value was as follows. It is true that an individual inherits an emotional-volitional attitude to behave according to economic principle, that is, to satisfy his needs in order to maximize his well-being or minimize his pain at the least cost. This principle is reflected in an individual's innate ability to assign to goods positive or negative values, depending on their effect on his well-being or pain (1914, pp. 199–200).

The innate needs in human nature, however, account for an insignificant share of all human needs; the overwhelming majority of them are acquired by individuals from society, which developed them throughout history. Thus the ability to value goods capable of satisfying the historically acquired needs is not innate in human nature. As Orzhentsky said, "The economic principle contains the psychological ability to value; but specifically what to value is not contained in the laws of value" (1914, p. 201). Furthermore, the urgency of acquired needs and the scarcity of goods which can satisfy these needs are historically determined. The existing levels of technological and social conditions are also of importance to an individual's economic behavior, and, of course, are subject to change over time (1914, pp. 200–201). For these reasons Orzhentsky came to the following conclusions:

Need or goals, values, forms and norms of behavior—all this is borrowed by the individual from the existing stock, available for adoption, and cannot be deduced *a priori* from the essence of the individual's nature. The ready stock of values, goals, forms and norms of behavior corresponds to the concept of society as a sum of individuals.... The situation of the individual in society is characterized by the fact that he does not have necessity, possibility, aptitude to invent nor to devise his behavior nor to evoke it each time from the nature common to all mankind. His role is limited; by way of upbringing, suggestion, coercion, or imitation he adopts a certain number of available values, goals, forms or norms of behavior (1914, p. 202).

At appropriate times, he behaves according to them. The individual's ability to utilize these goals, values, forms and norms is not unchangeable, but is subject to evolution, akin to biological evolution, for the sake of survival (1914, p. 205).

In other words, such social phenomena as value or, in practical life, prices, are not determined by individual preferences. Rather, an individual finds them already formed in society and accepts them. This explanation of economic behavior does not deny the existence of economic principles, but only limits the use of the economic principle to an individual's adoption of social environment to his best advantage (1914, p. 205). Consequently, economic behavior and economic phenomena are the result of the joint influence of subjective psychological and objective social factors (apparently including resource scarcity).

Interestingly, in considering the need for such a synthesis, Orzhentsky did not refer to Alfred Marshall's work. He quoted widely the latter's *Principles of Economics*, second edition (1891), but only in relation to the definition of an economic phenomenon. Orzhentsky failed to include the discussion of Marshall's theory of value (prices), probably the first to be based explicitly on the interaction of the psychological factor, utility, and the social factor, scarcity.

Orzhentsky did not leave a fully developed theory of value of his own, which would have included both psychological and social considerations. He was interested in these problems during World War I and the subsequent Russian Revolution, not a particularly appropriate time for this kind of research. Nevertheless, Orzhentsky reportedly completed a study on problems of value during his stay in Kiev (1919–22), a study that most likely contained precisely such a theory, or at least an outline for one. Because of the conditions of that time, the study was never published and probably perished (Ptukha, 1924–25, p. 17), which is unfortunate, as the work might have been an original and significant contribution to economics.

Orzhentsky did leave some indications as to the direction of his thinking on problems of value as a mature scholar. In a theoretical statistical study published before the war, he concluded that the laws of social behavior are analogous to the laws of biological behavior. In order to define social laws, specifically economic laws, the available data first have to be studied with the help of statistical methodology. This methodology, although not yet well developed, could be useful in formulating an approach to the study of economic phenomena. Orzhentsky argued that the use of the deductive method for establishing such laws, had led to "the incorrect view of the influence of psychological processes on social phenomena and the presentation of the latter in mystical and metaphysical terms, including transcendental goals such as freedom, and to severing of the connection of social phenomena from all other aspects of human experience" (1910, pp. 442–43). Orzhentsky's transition

from psychological subjectivism to the socially determined approach to the study of social phenomena was complete.⁹⁵

Orzhentsky was a well-rounded scholar who travelled to Western European countries and knew foreign languages. He was well read in professional literature and receptive to new ideas. Although his specialty was theoretical economics and theoretical statistics, he was intimately acquainted with philosophy, psychology and mathematics. Aristotelian philosophy was of particular interest to him. As noted, he was able late in life to change radically his views on basic economic problems.

According to the quoted, sympathetic obituary, Orzhentsky's misfortune in life was the fact that he had to support his family and himself with various teaching and government jobs and could not devote enough of his time to his beloved theoretical research. Reading Orzhentsky's works and articles about him, one gets a picture of a dedicated and able scholar with a Western outlook on life and, in particular, on scholarship.

The attitude of Soviet writers toward Orzhentsky is of interest. In an obituary written in 1924, when freedom of expression was greater than at any other time in the history of the USSR, Ptukha says that Orzhentsky, as a member of a nationally and socialistically oriented political party, was one of the leaders of the 1905 Revolution in Odessa (1924–25, p. 2). Brover, writing in 1927, tried to present Orzhentsky as influenced by the psychological school of economics in Ukraine before the Revolution, and by social and economic conditions that existed there. Brover divided the Ukrainian bourgeoisie into richer and poorer strata. The former were primarily interested in the exploitation of the working class regardless of nationality; the latter also in the realization of the Ukrainian quest for political independence. Thus the latter, petty bourgeois class was ready to compromise with the working class. The inclusion of labor considerations in the marginalist theory of value and the absence of outright hostility toward Marxism on the part of Orzhentsky were, according to Brover (1927, pp. 95–96), a reflection of these petty-bourgeois tactics. However, there is no indication that Orzhentsky was aware of, much less interested in Ukrainian political problems. His association with the Ukrainian Academy of Sciences was purely professional. Finally, the late Shablii, in a recent discussion of the psychological school in Ukraine, argued that after the 1905 Revolution the objective of the Ukrainian bourgeois economic theory was to combat the revolutionary movement of the proletariat. She did not mention Orzhentsky in this context, but stated that he rejected the labor theory of value and was thus implicitly also against the proletariat and Marx (Shablii, 1979, pp. 90–92). This evaluation of Orzhentsky from the vantage point of present politics is as appropriate as that of Ziber, discussed earlier.

NOTES

1. In keeping with this definition, some Ukrainians who in their writings used economic arguments to further their political objectives, will be excluded from our analysis. Such prominent writers as Ivan Franko or Mykhailo Drahomanov, often named as contributors to economics by Soviet writers, belong to this group.
2. According to various sources and a private communication from an authority on nineteenth-century Ukrainian history, Professor O. Ohloblyn, the ethnic background of the listed economists at Kharkiv, Kiev, Odessa and other universities (except Lviv and Chernivtsi) was as follows: Hattenberher—Swiss-French; Ziber—Swiss-German; Sreznevsky, Stepanov Posnikov, and Katkov—Russian; Bunhe—German; Orzhentsky—Polish; Zheleznov, Fedorovych, Volsky—uncertain. All others were of Ukrainian background.
3. It seems that one exception were the Myklashevsky brothers. Ivan Myklashevsky, Kharkiv University, published abroad: *Die Entwicklung des landwirtschaftlichen Bildungswesens in Russland* (Vienna, 1892); "Du prix de revient des principales céréales en Russie et en Allemagne," *Journal des économistes*, April 1891; "Les syndicats industriels d'après: l'ouvrage russe de J. Yanchoul," *Revue d'économie politique*, 1896; "Russian School of Political Economy," ed. R.H.I. Palgrave, *Dictionary of Political Economy*, vol. III (London: Macmillan & Co., 1918). Oleksander Myklashevsky, Dorpat University, published: "Monetary Reform in Russia," *Economic Journal*, 1896. Also Kostiantyn Vobly published "Beitrag zur Wirtschaftsgeschichte Polens," *Zeitschrift für Volkswirtschaft, Sozialpolitik und Verwaltung*, 1909.
4. In contrast, the economists in the Ukrainian SSR at the present are practically cut off from any direct scholarly relations with the West. If there is any communication, it is through Moscow. These economists' knowledge of Western languages and professional literature is incomparably worse than that of their counterparts before the Revolution. See Koropecykj, 1973–77, pp. 187–88.
5. Works by Ukrainian economists discussed in the last part of this chapter contain references to hundreds of sources. In each case, one can find only about a handful of Russian sources.
6. Of course, as far as Tsagolov is concerned, Vernadsky is a Russian.
7. For example, I. Myklashevsky and V. Levytsky wrote on agriculture; M. Iasnopolsky on geographical distribution of budget receipts and expenditures; L. Iasnopolsky on the Donbas industry; I. Sokalsky on foreign trade and artisan production; M. Ziber on the cooperative movement—all with respect to Ukraine.
8. In Ukraine, an exception was O. Posnikov, Odessa University, who wrote widely on the *obshchina*. However, he was ethnically Russian and was educated at Moscow University.
9. One cannot categorize a historical economist, Mykola Bunhe, and an economist sympathizing with the marginalist school, Dmytro Pikhno, and a marginalist, Oleksander Bilimovych, together and suggest that they were members of "Kiev school" of economics, as does Spektorsky, 1935, pp. 33–34.

10. These views by List became even more important later, when S. Witte, as finance minister, was responsible for the formulation and implementation of economic policies of the Tsarist government. See von Laue, 1969, pp. 56ff.
11. The bibliography in question is by S.I. Karataev, *Bibliografiia finansov, promyshlennosti i torgovli. S vremen Petra Velikogo po nastoiashchee vremia* (s 1714 po 1879 god vkluchitelno) (St. Petersburg, 1880).
12. Schumpeter omits, in his masterpiece, the analysis of the contributions of Russia's, including Ukraine's, economists in the nineteenth century. No doubt, if he were convinced that it would be worthwhile to get acquainted with their works, he would have read and analyzed them. He did not hesitate to include the analysis of those Ukrainian and Russian economists who undoubtedly contributed to economics at the turn of the century, such as Tuhan-Baranovsky, Slutsky, Kondratiev.
13. Such an analysis can fruitfully be undertaken using the model developed by Spengler, 1968.
14. As expressed by Gustav von Schmoller, *Über einige Grundfragen des Rechts und der Volkswirtschaft* (Jena, 1875).
15. *Untersuchungen über die Methode der Sozialwissenschaften und der politischen Ökonomie insbesondere* (Leipzig, 1883).
16. The article in question was entitled, "Realno-psikhologicheskaiia politicheskaiia ekonomiiia," *Mir*, October 1881. The initial H reads as G in Russian.
17. In our discussion of Ukrainian economists, we will refer to well known Western scholars. Since economists everywhere are familiar with the views of the latter, no specific references to their works will be given.
18. *Über den obersten Grundsatz der politischen Ökonomie* (Riga, 1807); *Grundlinien der politischen Arithmetik* (Kharkiv, 1811).
19. During his Kharkiv period, Jacob published *Grundsätze der National Ökonomie oder National-Wirtschaftslehre* (Kharkiv, 1809, Halle and Leipzig, 1819, 1825).
20. Schumpeter, 1961, p. 502, describes Storch's work as critical Smithianism, on the grounds that the universal economic laws are modified by concrete conditions. For his influence on the development of Tsarist Russia, see McGrew, 1976.
21. His major work is *Zapiski o politicheskoi ekonomii*, 2 vols. (Kharkiv, 1844-48).
22. His publications include: *Vliianie russkogo zakonodavstva na torgovoi i bankovoi kredit* (Kharkiv, 1870); *Zakonodatelstvo i birzhevaia spekulatsiia* (Kharkiv, 1872); *Venskii krizis 1873 g.* (St. Petersburg, 1877); and journal articles.
23. He published: *Vzgliad na razvitie ucheniia o naloge u ekonomistov A. Smiia*, *Zh. B. Seia, Rikardo, Sismondi i D.S. Millia* (Kharkiv, 1870); *Ocherki narostaniia gosudarstvennogo dolga v Anglii i Frantsii* (Kharkiv, 1872); *Deistvuiushchee zakonodatelstvo o priamykh nalogakh* (Kharkiv, 1879); and journal articles.
24. *O deistviiakh rossiiskogo pravitelstva v otnoshenii k selskomu khoziaistvu* (St. Petersburg, 1840).
25. *Reforma na ocheredi* (Kharkiv, 1895).
26. "Teoria denezhnogo obrashcheniia. Tsennost i tsena," *Zapiski Kharkovskago universiteta*, 1882, nos. 1, 2, 3.
27. According to this author, other Ukrainian economists, such as Ivan Ianzhul, Oleksander Postnikov, and Volodymyr Levytsky held similar views.
28. About which he wrote: *Ocherki krestianskogo khoziaistva Malorossii* (Moscow,

- 1887); *K istorii sel'sko-khoziaistvennogo byta Moskovskogo gosudarstva. Zaselenie i sel'skoe khoziaistvo iuzhnoi okrainy Rossii 17 veka* (Moscow, 1894); and journal articles.
29. He wrote *Reforma denezhnogo obrashcheniia v Rossii i promyshlennyi krizis (1893–1902)* (Kharkiv, 1902).
 30. His most important works before World War I include: *Zadachi i metody nauki o narodnom khoziaistve* (Iaroslavl, 1890); *Selskokhoziaistvennyi krizis vo Frantsii* (Moscow, 1899); *Istoriia politicheskoi ekonomii v sviazi z istoriei khoziaistvennogo byta* (Kharkiv, 1914).
 31. His publications include: "Znachenie rekrut'skoi povinnosti v riadu sistem formirovaniia i komplektovaniia voisk," and "Istoricheskie ocherk nalogov na sakhar v Rossii," both in *KUI*, 1869 and 1872, respectively.
 32. He was a descendant of an old Flemish family (Huysmans) settled in Podillia, and studied at Kazan and Kiev Universities. Before his premature death, he wrote for *Ekonomicheskii ukazatel*, published by his friend Ivan Vernadsky. See *RBS*, vol. 4, pp. 361–62.
 33. His relevant works are: *Teoriia tsennosti* (Warsaw, 1877); *Kurs politicheskoi ekonomii* (Kiev, 1886).
 34. He published: *Zakon sprosa i predlozheniia* (Kiev, 1866); *Zheleznodorozhnye tarify* (Kiev, 1888).
 35. *O geograficheskoi raspredelenii gosudarstvennykh dokhodov i raskhodov Rossii* (Kiev, 1890, 1897). Of importance for the understanding of the economic development in Ukraine is his earlier work, "Ekonomicheskaiia budushchnost Iuga Rossii i sovremennaia ego otstalost'," *Otechestvennye zapiski*, 1871.
 36. For example, *S. Frank. Teoriia tsennosti Marksa i ee znachenie* (1900); *K voprosu o raztsenke khoziaistvennykh blag* (1914); *Sotsialnaia teoriia raspredeleniia* (1916).
 37. Zheleznov's publications include: *Ocherki politicheskoi ekonomii* (several editions); *Glavnye napravleniia v razrabotke teorii zarabotnoi platy* (Kiev, 1904); *Ekonomicheskie mirovozzrenie drevnikh grekov* (Moscow, 1916).
 38. During the discussed period, Leonid Iasnopolsky authored *Ocherki russkogo biudzhethnogo prava* (Moscow, 1912) and edited *Statistiko-ekonomicheskie ocherki oblastei, gubernii i gorodov Rossii* (Kiev, 1913).
 39. His publications of that period include: *Zaatlanticheskaiia emigratsiia, eia prichyny i sledstva* (Warsaw, 1904); *Ocherki po istorii pol'skoi fabrichnoi promyshlennosti* (Kiev, 1909).
 40. On Vobly's prerevolutionary views on economic theory and methodology, see my 1987 article.
 41. *Zadacha politicheskoi ekonomii i odnoshenie ee k prochim naukam* (Odessa, 1872).
 42. His relevant publications are: *Obrabotka zemli krest'ianami sobstvennikami* (Odessa, 1865); *Rabskaia obrabotka zemli* (Odessa, 1869).
 43. Interestingly, Orbinsky travelled to the United States where he studied American agriculture and upon his return home, suggested borrowing some of its arrangements by the Tsarist Empire (cf. his book, *O khlebnnoi torgovle Soedinennykh Shtatov Severnoi Ameriki* (St. Petersburg, 1880).
 44. Cf. Iurzenko, 1968, pp. 305–306; Karataev, 1956, pp. 145–48. This is the subject

- of his main, two-volume work, *Obshchinnoe zemlevladienie* (Odessa, 1875, 1878).
45. During the Revolution, Posnikov was associated with the Provisional Government in Petrograd.
 46. He published: *Teoriia denezhnogo i kreditnogo obrashcheniia* (Odessa, 1888); *Istoriia politicheskoi ekonomii drevnikh vremen do A. Smita* (Odessa, 1900).
 47. He published: *K voprosu o merakh k razvitiu proizvodstvennykh sil Rossii* (Odessa, 1904); *K agrarnomu voprosu* (Odessa, 1906). Kosynsky became "immortalized" because of Lenin's attack on his views. Kosynsky was supposed to have argued at a 1913 conference that no social and economic "proletarization" of the village was evident. See Lenin, 1948, pp. 327-30.
 48. His publications of that period are: *Obshchee uchenie o veksele* (1904); *Ocherki statistiki ekonomicheskoi i kulturnoi* (1912).
 49. His many publications include: *Study nad podatkiem dochodowym*, 2 vols. (Lviv, 1870); *Die Eisenbahntarife* (Vienna, 1875); *Wyklad ekonomii spolecznej*, 2 vols. (three editions).
 50. Cf. *Englands wirtschaftliche Entwicklung im Ausgange des Mittelalters* (Jena, 1879).
 51. During this period, Głabiński published: *Wyklad nauki skarbowej* (Lviv, 1894); *Ekonomia spoleczna* (Lviv, 1904).
 52. *Ekonomia spoleczna*, vols. I-IX (Lviv, 1927-33).
 53. More important among his works of that period are: *Karl Marx als Sozialtheoretiker* (Bern, 1899); *Erkenntnislehre der wirtschaftlichen Erscheinungen* (Leipzig, 1900); *Zarys rozwoju idei spoleczno-gospodarczych w Polsce* (Cracow, 1904).
 54. *Die K.K. Franz-Josefs Universität*, 1900, pp. 84-85; Norst, 1900, p. 29; Wagner, 1975, pp. 125, 309.
 55. His important publications are: *Die Kartelle, Ein Beitrag zur Frage der Organization der Volkswirtschaft* (Innsbruck, 1883); *Die Staatsromane, Ein Beitrag zur Lehre vom Communismus und Sozialismus* (Vienna, 1891); *Das Einkommen und seine Verteilung* (Leipzig, 1896).
 56. During this period, Schumpeter published: *Wie studiert man Sozialwissenschaft?* Chernivtsi-Sozialwissenschaftlicher akademischer Verein (Munich and Leipzig, 1910), and several articles, mostly in *Zeitung für Volkswirtschaft, Sozialpolitik und Verwaltung*.
 57. Among his publications of this period are: *Objekt und Grundbegriffe der theoretischen Nationalökonomie* (Vienna and Leipzig, 1911); *Nationalgefühl und Staatsgefühl* (Munich, 1915).
 58. On Desnysky's life and work, see Gratsianskii, 1978; Brown, 1975.
 59. Desnysky's views were expressed in his *Predstavlenie o uchrezhdenii zakonodatelnoi, suditelnoi i nakazatelnoi vlasti v Rossiiskoi imperii*; the title of Catherine's proposal is *Nakaz Imperatritsy Ekateriny II, dannyi komissii o sochinenii proekta novogo ulozheniia*. See on this, Brown, 1974.
 60. See Baitsura, 1971.
 61. To his many works belong: *Opyt izsledovaniia angliiskikh kosvennykh nalogov* (Moscow, 1874); *Angliiskaia svobodnaia trgovlia*, 2 vols. (Moscow, 1882); *Ocherki i izsledovaniia*, 2 vols. (Moscow, 1884); *Osnovnye nachala finansovoi nauki*, four editions.

62. For example, Kovalevsky was the chief editor of the encyclopedia-type publication, *Ukrainskii narod v ego proshlom i nastoiashchem*. In politics, he demanded decentralization of the Tsarist regime on the basis of ethnic principle. See Kubijovyc, vol. 3, 1955, p. 1059.
63. His many publications include: *Obshchinnoe zemlevladienie, prichyny, khod i posledstvie ego razlozheniia* (Moscow, 1879); *Ekonomicheskii rost Evropy do vozniknoveniia kapitalisticheskogo khoziaistva* (Moscow, 1898–1903); *Sotsiologiia*, 2 vols. (London, 1910). With respect to Ukraine, he wrote: "Proizkhozhdenie starozaimochnogo zemlevladieniia v Slobodskoi Ukraine," "Obshchinnoe zemlevladienie v Malorossii v 18 v." (see Kubijovyc).
64. *Obmen i ekonomicheskaiia politika* (Iurev, 1904); *Arbitrazh i soglasenie v promyshlennykh sporakh* (Iurev, 1907); *Istoriia politicheskoi ekonomii* (Iurev, 1909).
65. For his biography and bibliography, see Kiktenko and Skokan, 1961, with an introduction by D.F. Virnyk.
66. *Istoriia narodnogo khoziaistva SSSR*, 3 vols. (Moscow, 1947–48).
67. Rylsky wrote, "Studii nad osnovamy rozkladu bohatstva," *Zapysky Naukovoho Tovarystva im. Shevchenka*, 1892, 1893.
68. See Vytanovych, 1934; Zlupko, 1961; Klymova, 1979.
69. See Bovanenko, 1928; Mytsiuk, 1931; Korniihuk and Meshko, 1958; Martinez-Alier and Narado, 1982.
70. The books include: *Pro khliborobstvo* (1874); *Parova mashyna* (1875); *Pro bahatstvo ta bidnist* (1876).
71. Although Karazin's writings focused on agriculture, he was also concerned with other economic sectors. The influence of both physiocratic and mercantilistic schools are evident. See Sliusarsky, 1956, pp. 125–27.
72. Another important representative of Legal Marxists in Ukraine was Bohdan Kistiakivsky (1868–1920), later a noted sociologist and professor at Moscow University. See Kruhliak, 1961.
73. For his life and work, see Chapter 7.
74. Vernadsky articulated his opposition to the protectionism in foreign trade in his articles: "O vneshnei torgovle" and "Eshche o vneshnei torgovle" which exerted a strong influence on public opinion at that time. See Karataev, 1956, p. 92.
75. On Saint-Simon, see Gerschenkron, 1969, p. 37. Since Vernadsky's views were altering under the influence of the changing conditions, he was considered by his contemporaries a follower of Sismondi and Bastiat, and some thought he had contradicted himself. See Tsagolov, 1956, pp. 365–66.
76. The books in question are: *Ocherkii teorii potrebnosti* (St. Petersburg, 1857); *Zamechaniia k knige G. Shtorkha, Kurs politicheskoi ekonomii, t. 1*, St. Petersburg, 1861, Translation with comments by I.V. Vernadsky (St. Petersburg, 1881).
77. See Grigorii Tsekhanovetsky, *Znachenie Adama Smita v istorii politiko-ekonomicheskikh sistem* (Kiev, 1859); "Kratkii obzor politicheskoi ekonomii," *KUI*, 1866, nos. 3, 4; *Zheleznyiia dorogi i gosudarstvo. Opyt izsledovaniia o vazhneishykh predmetakh ekonomii i politiki zheleznykh dorog* (1869).
78. Bunhe introduced these tariffs despite the fact that in an earlier scholarly work, he argued in favor of free trade. See Teplytsky, 1961, pp. 48–49.

79. His many publications include: *Teoriia kredita* (Kiev, 1852); textbook on *Politseiskoe pravo* (Kiev, 1873–77, incomplete); *Kurs statistiki* (Kiev, 1865, 1876); *Osnovaniia politicheskoi ekonomii* (Kiev, 1870); *O vozstanovlenii metallichesкого obrashchenia v Rossii* (Kiev, 1877).
80. Published in *Zur Geschichte der Staats und Sozialwissenschaften* (Leipzig, 1888).
81. The pre-revolutionary *ES*, vol. 12, p. 581, lists her as “malorusskaia” (Ukrainian) and so does Vorovsky, 1933, p. 174, in a 1908 article. Kleinbort, 1923, p. 11, identifies her as half French and half Russian. Reuel, 1937, p. xxxvi, states, on the basis of information from Ziber’s sister, that their mother was a Russified French woman. (Perhaps at that time the daughter might have been ashamed of her mother’s Ukrainian background.) Ovsianiko-Kulikovskii, 1923, p. 147, calls Ziber “psychologically and according to nationality an indigenous and typical Russian man” because “he was born and educated in Russia (in the Crimea and Kiev),” which implies that all citizens of the Tsarist Empire were Russians. Tsagolov, 1960, refers to Ziber throughout as Russian. Tsagolov’s introduction to Ziber, 1959, is basically the same as the above-cited chapter. All editions of *BSE* also call Ziber Russian.

In Soviet Ukraine, there was a change in this respect. *URES*, vol. 1, 1966, p. 773, lists Ziber as a native (*vitchyzniani*) economist implying that it is difficult to determine his nationality. *URE*, vol. 17, 1965, p. 102, considers him Ukrainian, but *URE*, vol. 4, 1979, p. 272, already changes Ziber’s nationality to Russian.

Who then was Ziber? He remained a Swiss citizen throughout his life, but he was born in Ukraine, was educated there, worked there for a part of his life, and died there. He wrote only in Russian. However, one has to keep in mind that the Valuev ukase, in 1863, and the Ems ukase, in 1876, prohibited the publication of scholarly works in Ukrainian. The following facts from Ziber’s life, however, suggest not only his interest in, but also his commitment to, Ukrainian aspirations. After his graduation from the university, Ziber volunteered to help Ukrainian peasants in Volhynia adjust their claims in connection with the 1861 emancipation reform (Kleinbort, 1923, p. 13). After his return from abroad, he prepared, at the request of the South-Western branch of the Russian geographical society (which was dominated by Ukrainians), a plan for the collection of statistical data in Ukraine (*ibid.*, p. 16). He was elected chairman of the board of directors of the Kiev cooperative society and wrote a popular pamphlet, *Potrebitelskie obshchestva* (Kiev, 1869) (Sapitsky, 1929, p. 148). In 1875, Ziber collaborated in a Kiev liberal newspaper, *Kievskii telegraf*, with such important Ukrainian leaders as M. Drahomanov, P. Chubynsky and P. Zhytetsky, who were the ranking members of the only existing political and cultural organization at that time, *Kiev Hromada*, and lectured on economics at the private courses for women organized by this society (Rusov and Volkov, 1907, pp. 155, 156). Sapitsky, 1929, pp. 142, 147, on the basis of various sources, claims that Ziber was a member of this organization. Finally, Ziber resigned from the faculty of Kiev University in protest against the expulsion of M. Drahomanov, a prominent Ukrainian leader, with whom he remained friends; he was even afraid to return home from abroad because of this friendship (Ovsianiko-Kulikovskii, 1923, p. 148). See, also, Bovanenko, 1927. For the most recent work on Ziber, see Scazzieri, 1987.

82. Most of the works not included in this edition, are listed by Kleinbort, 1923, pp.

29–30.

83. Published as "Teoriia tsennosti i kapitala Rikardo v sviazi z pozdneishimi raziasneniiami," *KUI*, 1871, nos. 1–2, 3–11; "Ekonomicheskaiia teoriia Marksa," *Slovo* (St. Petersburg, 1878), four issues.
84. Subsequent references to *Rikardo i Marks* will be to the 1959 edition, volume 1.
85. An error made even by one of the founders of marginalism, Carl Menger. See Stigler, 1941, p. 144.
86. Ziber devoted a separate article to the criticism of Mill, whom he accuses of repeated contradictions. See his "Vozrazhenie na ekonomicheskoe uchenie John Stuart Mill," in Ziber, 1959, vol. 2.
87. Actually, Marx does not see his inconsistency as sharply as Ziber. For the latter, it is a "contradiction," while the former stated, more mildly: "Of course the ratio of surplus-value not only to that portion of the [variable] capital from which it immediately springs, and whose change of value it represents, but also to the sum total of the capital advanced is economically of very great importance. We shall, therefore, in the third book, treat of this ratio exhaustively." See Marx, 1961, vol. 1, p. 215.
88. See his, "Nemetskie ekonomisty skvoz ochki g. B. Chicherina," in Ziber, 1900, vol. 2, p. 619.
89. Cf. "K voprosu o razvitii krupnogo khoziaistva," Ziber, 1900, vol. 1.
90. See his, "Ocherki pervobytnoi ekonomicheskoi kultury," in Ziber, 1959, vol. 2, p. 468.
91. And who was praised by Marx, as we saw, and Lenin and "even" was personally acquainted with the former. According to Sapitsky, 1929, p. 158, who based his statement on the memoirs of a Russian writer, N.A. Kablukov, Ziber, while in London in 1880, together with another Ukrainian-born economist, Ivan Ianzhul, often visited the homes of Marx and Engels where they became acquainted with both families and where they also met A. Bebel.
92. For example, Kleinbort, 1923, pp. 70–71; Reuel, 1937, pp. lvi, lxxviii; Virnyk, 1956, pp. 48–49; Tsagolov, 1959, pp. 63, 93–94; Karataev and Ryndina, 1961, p. 305.
93. His most important works are: *Poleznost i tsena* (Odessa, 1895); "Poniatie ob ekonomicheskoi iavlenii," *Zapiski Imperatorskogo novorossiiskogo universiteta*, vol. 93 (Odessa, 1903); *Svodnye priznaki* (Iaroslavl, 1910); Orzhentsky, 1903; Orzhentsky, 1910; *Uchebnik matematicheskoi statistiki* (St. Petersburg, 1914); and numerous articles in journals and newspapers.
94. Published under the title, *Uchenie o tsennosti u klassykov i kanonistov* (Odessa, 1896).
95. This transition was not as unexpected as it appears. Already in an early work, unavailable in the West, Orzhentsky had expressed his doubts about the exclusive use of the subjective approach toward the theory of value: "The object of a correct and comprehensive theory of value should be, in our view, the following. Starting from the entirely correct and in general more or less currently accepted propositions of marginal theory, the theory of value should explain all these external and empirical relations and exchange laws which have been discovered and worked out by other theories." *Uchenie ob tsennosti*, 1896, p. 121, as quoted by Shabl'ii, 1979, p. 92.

Chapter 7

Ivan Vernadsky: His Life and Work

*And Bely and Blok and Esenin and Kliuev:
O Russia, Russia, my Russia!
...Kiev stands there tormented a hundredfold
And I—crucified two hundred times.*

Pavlo Tychyna

The Ukrainian economist Ivan Vernadsky, who died in 1884, belongs to the large number of non-Russians who made a significant contribution to the enrichment of scholarship and culture in the Russian language.

Despite his scholarly and publicist achievements, Vernadsky's life and work have not been adequately studied. Ukrainian sources mention him only occasionally and briefly.¹ The residence in Moscow and St. Petersburg for most of his professional life, places Vernadsky beyond the scope of Soviet Ukrainian research. Russian sources contain numerous references to Vernadsky as an economist² and statistician.³ But only one Russian historian of economics, Nikolai Tsagolov (1956; 1958), has studied Vernadsky's work more extensively. It is not possible, however, to get a complete picture of Vernadsky's contributions from Tsagolov, whose concern is restricted to ascertaining where Vernadsky's thought diverges from or agrees with current Soviet ideology. Western scholars are unacquainted with Vernadsky's work for the most part.⁴

The purpose of this article is threefold: first, to offer a biographical sketch of Vernadsky's life; secondly, to highlight his civic and publicist activities; and thirdly, to attempt to delineate Vernadsky's relations to and views on his ethnic origin.

His Life

Vernadsky's ancestors came to Zaporizhzhia, the seat of the Dnieper Cossacks, from either Lithuania or Italy and, subsequently, in the middle of the eighteenth century, settled in the Chernihiv province.⁵ The first ancestor, Ivan, about whom some information is available and who spelled his name Vernatsky, was a priest in the village of Tserkovshchyna in the Chernihiv province. He had an explosive personality which often led to conflicts with his parishioners. Ivan had three sons whom he hoped would become priests. The middle son, Vasyl, however, left home to study in Moscow. For this insubordination, Ivan cursed Vasyl and all of Vasyl's progeny. Vasyl, however, received a secret blessing from his mother, who came from a well-known Cossack family Zabillo and was a descendant of a prominent colonel, Kryzhanivsky, who was probably of Jewish ancestry. Vasyl did not get admitted to Moscow University. Instead, he completed the Medical-Surgical Academy and then became an army doctor. As the head of a field hospital, he took part in many of Suvorov's and Kutuzov's campaigns and during the Napoleonic wars Vasyl and his hospital staff spent time in a prisoner-of-war camp in Switzerland. The French government, in recognition of Vasyl's humane treatment of wounded French soldiers in Russian prisoner-of-war camps, awarded him with the Légion d'honneur.

Vasyl was a member of the Masons and, while living in Kiev after his retirement, belonged to a circle of mystics led by Pyletsky (along with a physician Bunhe, who was probably the father of the distinguished economist and finance minister, Mykola Bunhe). Vasyl Vernadsky (he was the first to use this spelling) married Kateryna Korolenko, who came from the same Cossack family as Vladimir Korolenko, the noted Russian writer. Vasyl and Kateryna had many children, but they all died before reaching adulthood. (Perhaps Ivan's curse had something to do with this.) To counteract, the couple named their youngest son, born in 1821, after his grandfather. The son survived childhood, but lost his father at the age of fifteen.

Vasyl Vernadsky left no fortune for his family, and his widow and son received financial support from Kateryna's family. Young Ivan fostered a close relationship with the Korolenkos whose liberal views made a lasting impression on the boy. He attended the Kiev gymnasium and passed the state examination while only in the sixth grade. Subsequently he was admitted to Kiev University, but decided to enrol at Moscow University instead. After arriving in Moscow, however, he was not accepted into the university. Having no financial means he lived in extreme poverty and, as a result, developed chronic heart disease. Eventually, he returned to Kiev where he graduated from the university with high honors. Vernadsky won a gold medal for his graduation essay entitled "About the Soul," based on Platonian philosophy.

After completing his university studies he began teaching Russian language and literature at the Kamianets-Podilsky gymnasium. During this period, he was interested primarily in Slavic literatures, particularly Ukrainian literature.

At that time, the Tsarist government began awarding two or three year scholarships to the most promising university graduates for study abroad. In this manner it hoped to fill university teaching positions with its own people. Ivan Vernadsky applied for such a scholarship to study Slavic philology and literatures. He was unsuccessful in obtaining this particular award, but accepted another scholarship to study political economy. (Later, his son Volodymyr was to consider this decision a mistake.) Vernadsky proceeded to study in Germany, Austria, Switzerland, France and England. He attended lectures given by such well known scholars as K. Rau, M. Chevalier and J. Blanqui. The outcome of his studies was a master's thesis entitled "Ocherk teorii potrebnosti" which he defended at St. Petersburg University in 1847. The study of political economy did not occupy all of Vernadsky's time abroad. He maintained his interest in Slavic literatures and took the opportunity to meet such luminaries of the field as P. Safarik and V. Hanka.⁶

Between 1846 and 1848 Vernadsky was an assistant professor of economics and statistics at Kiev University. In 1849 he defended his doctoral dissertation entitled *Kritiko-istoricheskoe izsledovanie ob italianskoi politiko-ekonomicheskoi literature do nachala XIX veka* at Moscow University.⁷ That year he received a promotion to the rank of assistant professor. The following year he obtained a position at Moscow University where he taught until 1856. In 1851 Vernadsky became a full professor of political economy. In 1857 he moved to St. Petersburg where he was appointed an official for special assignments in the Ministry of Internal Affairs. He held this position until 1867. Between 1857 and 1859 he lectured at the Main Pedagogical Institute and between 1861 and 1868 at the Alexander Lyceum. In 1868, probably on account of his heart condition, Vernadsky was forced to leave St. Petersburg and move to Kharkiv where he managed a branch of the State Bank. In 1876 he retired and returned to St. Petersburg where he died in 1884.

Vernadsky was married twice. His first wife, Maria Shigaeva (born in 1831) under her husband's influence developed an interest in political economy and became the first noteworthy female economist in the Tsarist Empire.⁸ During her short life (she died in Heidelberg in 1860) Maria authored a number of works; her interests included the issues of female emancipation, women's work, and women's education. She also translated economic literature into Russian from other languages. She published primarily in the journals issued by her husband, whose publication she probably encouraged. After Maria died, Vernadsky published her writings in a separate volume.⁹ The Vernadskys had one son, Mykola, to whose upbringing Maria was most devoted. He died at an early age, shortly after completing

Kharkiv University. Vernadsky's second wife, Anna, was the daughter of Petro Konstantynovych and Viktoriia (née Krasnytsky). The Konstantynovyches were descendants of Greeks who settled in Ukraine a long time ago and later became Cossack officers. This marriage produced a son, Volodymyr (1863–1945) the world renowned biochemist and the first president of the Ukrainian Academy of Sciences, and two daughters, Olha whose husband was Kiril Alekseev and Kateryna who married Sergei Korolenko. Volodymyr and his wife Natalia (née Starytsky) had a son George (1887–1973), the well known professor of Russian history at Yale University and Nina (1897–?), a psychiatrist, married to Nikolai Toll.

Ivan Vernadsky was an exceptionally talented and multi-faceted human being. He was acquainted with practically all of the economic writings of his time in every language. In addition to economics and statistics, he maintained an interest in Slavic literatures. He knew English, German, French and Italian as well as all the Slavic languages. He knew Polish particularly well and harbored "pro-Polish" sympathies. It is clear that Vernadsky was a hard working person given the large quantity of scholarly and publicist works he produced. He wrote quickly and had a fine style of writing. He was also a good public speaker and a fervent polemicist. As to his personal life, he was gregarious and, according to his grandson, occasionally liked to have a drink. He also had numerous "romances" (G. Vernadsky, p. 31).

Civic and Publicist Activities

Vernadsky's extensive scholarly, civic and publicist activities provide ample evidence of his incredible energy and hard work. Below we list his most noteworthy works, including some of those which appeared in his own journals. The titles themselves are an indication of Vernadsky's broad range of interests in economic and statistical problems which included the history of economic thought, the methodology of political economy, theoretical and applied statistics, international economic relations, international trade theory, the theory of consumer demand, the reforms of 1861, the development of agriculture, and various socio-economic issues. Some of these works are still noteworthy today, particularly Vernadsky's studies on the history of economic thought and his analysis of the economic development of the Tsarist Empire, especially on the benefits of commonly held land versus privately cultivated land and the relationship between economic development and international trade. Various other writings commented on the urgent problems of his day. It must be noted that Vernadsky wrote the bulk of his contributions during the relatively short period between 1849 and 1865. Only Vernadsky's translation of and a foreword to a book by H. Storch appeared after his retirement.

In addition to his work as university professor, civil servant, scholar and publicist, Vernadsky took an active part in community life. While professor at

Kiev University, he was a member of "The Commission for the Study of the Kiev Educational District," whose activity and publication had an important influence on the development of modern Ukrainian society (Teplytsky, 1956a, p. 188, n. 5). During his residence in St. Petersburg, he was active in the "Political Economic Committee at the Imperial Free Economic Society" and was its first chairman. The reports on the Committee's activity, which appeared in the weekly published by him,¹⁰ reveal that Vernadsky regularly attended its meetings, took part in discussion, and often gave lectures to this forum. At that time, he also founded a printing and publishing house, "Slovianska pechatnia" in which he published books in Slavic languages (Apanovych, 1984, p. 151). In 1860 Vernadsky took part in the International Statistical Congress in London where he chaired a session devoted to the problems of census collection and military statistics.¹¹ Vernadsky took this opportunity to visit many Western European scholarly centres, where he met distinguished economists and statisticians of his day. While working in Kharkiv, Vernadsky found time to be the chairman of the Society of Mutual Credit and vice-chairman of the Statistical Committee (*ES*, vol. 2, p. 38). When Vernadsky retired, he intended to edit a newspaper with liberal leanings in St. Petersburg. However, despite several attempts, he failed to obtain permission from the government for this venture. Disappointed with this decision, Vernadsky wanted to emigrate to Prague with his family, but his wife, who enjoyed life in St. Petersburg did not want to move (V. Vernadsky, p. 4).

In St. Petersburg, Vernadsky devoted most of his attention to publicist pursuits. He published and edited a newspaper devoted to economic, political and social issues and an economic journal. The newspaper, which was called *Ekonomicheskii ukazatel* in 1857–59, *Ukazatel politiko-ekonomicheskii* in 1859–60, and *Ukazatel ekonomicheskii, politicheskii i promyshlennyi* in 1861 (all three subsequently *EU*) was a weekly of substantial size, with over 2,000 subscribers. In 1858 Vernadsky began to publish the journal *Prilozheniia k Ekonomicheskomu ukazateliu*, which was renamed *Ekonomist* in 1859. At first the journal did not appear at regular intervals. In 1862 it began to come out on a monthly basis. Probably as a result of Vernadsky's ill health, the journal ceased publication in 1865.

The publication of *EU* can be divided into two periods. During the first two years, 1857 to 1858, the weekly regularly contained articles by the empire's well-known economists, including A. Skalkovsky, M. Bunhe and A. Khodnev, as well as some foreign contributors, for example, M. Chevalier. *EU* provided information about political and economic events both at home and abroad. It also included columns by correspondents from various provinces and other countries. The journal contained considerable statistical information and reviews of books in Russian and other languages. As publisher and editor, Vernadsky himself contributed most material to the

journal. He signed the articles using either his full name or his initials I.V. or I.V.-ii. The unsigned articles may also have been authored by Vernadsky. Vernadsky's first wife actively collaborated with her husband, usually signing her contributions with the initials M.V. During the second period of the journal's existence, the scope of the material was limited to statistical information, news articles, editorials, and reviews. Longer articles, Vernadsky's own as well as those by others, were published in the journal *Ekonomist*.

Ekonomist was supposed to be a standard economic journal, which at first appeared as a quarterly and then from 1862 as a monthly publication. However, on the basis of the issues available at the library of Helsinki University, it appears the journal did not appear with the same regularity as *EU*. *Ekonomist* included articles in economics and statistics by Vernadsky, his wife's translations of English and German articles on the methodological problems of political economy, and articles by other authors. The journal contained valuable information: for example, all the 1861 issues were devoted to the publication of regulations and ordinances relating to the emancipation of the serfs. This journal and, to an even greater extent, the weekly, were major accomplishments in Vernadsky's life. Undoubtedly, Vernadsky's own roles as the publisher, editor and frequent contributor were instrumental to their success. But it must be noted that the times themselves were conducive to this type of activity. Important structural changes were occurring in the Empire's economy in the beginning of the second half of the nineteenth century. It suffices to mention the emancipation, the rapid beginnings of industrialization and urbanization, and the growth of the railroad network. All these changes called for a professional economic analysis and the publication of economic data and information. *EU* and *Ekonomist* provided the forum for such discussions.

As noted above, *EU* and *Ekonomist* contained articles on theoretical issues of political economy and current economic and political events and trends. On theoretical issues, Vernadsky was a staunch adherent of the English school of economics, to be known later at the classical school. For this reason, Soviet writers refer to Vernadsky as "the well-known liberal economist" (Rozenal, 1961, p. 212) or even "leader of St. Petersburg's liberal economists" (Karataev, 1956, p. 139) whose "defense and elevation to inviolability of bourgeois economic relations were characteristic...in the solution to every economic problem" (Tsagolov, 1956, p. 366). In the articles on current affairs, Vernadsky utilized the doctrines of laissez faire in economics and of liberalism in politics, typical of nineteenth-century Western Europe. It is impossible to cover all issues discussed in his journals here. However, the following examples should suffice in providing an understanding of Vernadsky's viewpoints.

At the end of the 1850s a heated debate took place among the Empire's publicists about the conditions for the inevitable emancipation of the serfs.

Vernadsky was at the very center of this discussion.¹² In the series of articles by Vernadsky¹³ and other contributors,¹⁴ *EU* presented the most liberal solution to this problem, i.e., total private ownership of agricultural land and complete freedom for the peasants. In the opinion of the authors of the articles, such conditions for the long awaited reforms would lead to increased investment not only in agriculture but also in industry, would stimulate private investment, and would clear the way for unrestricted labor mobility from agriculture to other economic sectors. Vernadsky fervently polemicized with such well-known Russian publicists as V.A. Panaev, N.G. Chernyshevsky, and N.A. Dobroliubov. In their journal *Sovremennik*, these writers advocated personal emancipation of the serfs, but with the retention of communal ownership of the land. Even those who disagreed with him were given the opportunity by Vernadsky to present their views in his publication. For example, in a series of articles D.N. Strukov argued that communal ownership was preferable to private ownership, because it ensured greater possibilities for social justice in the villages (*EU*, 1857, no. 5, 7, 9, 10). Vernadsky criticized Strukov's stand asserting that the communal system was economically inefficient (*EU*, 1857, no. 21, pp. 119, 126–127).

Undoubtedly under the influence of his wife Maria, Vernadsky published pioneering works on women's rights and women's work. Using the concepts of the division of labor and comparative advantage, Vernadsky called on women to take up the kinds of occupations in which they were most productive and for which they should be paid the same as men doing the same jobs. A woman's occupation, he maintained, should not necessarily be that of a housewife (cf. 43, 1859). To free those women from housework who did not enjoy it, Vernadsky proposed the construction of residential complexes containing an array of restaurants and other household services. Such an arrangement would enable women to work in different sectors of the economy.¹⁵ Vernadsky did not fail to support the rights of domestic servants,¹⁶ nor did he avoid dealing with controversial subjects. Various issues of *EU* contained in-depth discussions on the treatment of prostitutes (they were discreetly referred to as "women of a well-known profession" or "*haeteras*").¹⁷ In an article (signed I.-skii, clearly denoting Vernadsky), Vernadsky, referring to similar ideas by J.B. Say, proposed the most liberal approach to this issue; he maintained that if the need for such services exists, these women perform a useful function and therefore deserve humane treatment, medical care, and their own association (55, 1862).

Living in the capital of a government known for its anti-Semitism, Vernadsky's newspaper provided a forum for the defense of Jewish rights. One contributor, Ivan Kretovich, proposed granting Jews the same rights as those enjoyed by Russians, particularly for commercial and business activities. In his opinion, such a decision would not only be fair, but also beneficial to the entire country and society (*EU*, 1858, no. 102). Although the Empire was

just beginning to industrialize and urbanize, Vernadsky was already aware of the damage these processes were causing to the environment. He published an article by A.I. Khodnev, in which the author described the various instances of air pollution and outlined various preventive and ameliorative measures (*EU*, 1857, no. 33).

These few examples should illustrate the broad range of subjects covered in Vernadsky's publications and the liberal attitude of their publisher and editor with regard to the issues of his day. Without a doubt, the publication of a journal like *EU* was unique for the times. One might ask, however, why devote so much attention in a study on Ukraine to a Russian-language journal which was published in the capital of the Empire of which Ukraine was a province? Or, more generally, why devote so much space to a scholar who wrote in Russian and who lived most of his working life outside of Ukraine? In response, one must keep in mind that in those days of the mid-nineteenth century, the Ukrainian language was not yet used for intellectual discourse and there was no demand for scholarly works written in the language. Also, without going into the reasons, Ukraine did not have relevant intellectual and social institutions. Yet, in this context Vernadsky's activities deserve our attention because they were undertaken by a person who was a Ukrainian.

Views on His Ethnic Origin

Why do we call Ivan Vernadsky a Ukrainian? This section will explore this issue, although our assessment will be incomplete and tentative because it is based on the fragmented testimonies of his son Volodymyr, his grandson George, and on various remarks made by Ivan Vernadsky himself in his writings. A more complete picture of Vernadsky's views on his nationality can perhaps be formed from the study of his archives, mentioned previously (n. 8). The archives of Volodymyr Vernadsky may also contain information on this issue.

First, how was Vernadsky's national origin treated before and after the Revolution? In the prewar *ES* (1899, p. 38), Vernadsky's nationality was not explicitly stated, although his wife is described as the first female Russian economist. In all the editions of the *BSE* Vernadsky appears as a "Russian" economist. Also, all the Russians who have written on the history of economic thought have considered Vernadsky "Russian." For example, the scholar who has studied Vernadsky most, Tsagolov, begins his discussion: "I.V. Vernadsky was one of the most notable Russian bourgeois economists of the second half of the nineteenth century" (1956, p. 365). In Soviet Ukrainian literature a "change" has occurred of late on the question of Vernadsky's ethnic background. The inclusion of his bibliography in the 1956 collection devoted to the development of Ukrainian economic thought suggests that Vernadsky was considered to have been a Ukrainian. Also in reference works

of the 1960s, he figured as a Russian and a Ukrainian economist. More recently, however, as, for example, in *URE* (vol. 2, 1978, p. 190) he is listed only as a Russian economist.

There is no doubt that both Vernadsky's parents were Ukrainian. He spoke Ukrainian well and a Ukrainian atmosphere was evident in his domestic life. For example, his son Volodymyr wrote of often singing Ukrainian songs at home partly because Volodymyr's mother was a good mezzosoprano. Vernadsky had a large, for those times, library of Ukrainian books which included a collection of *Osnova*. He was personally acquainted with Taras Shevchenko, Panteleimon Kulish, Mykhailo Maksymovych, Hryhorii Kvitka-Osnovianenko and was influenced by Mykola Hulak, his second wife's uncle. Anna was a schoolmate of Alina Krahelsky, Mykola Kostomarov's fiancée whose wedding was cancelled upon the arrest of the members of the Brotherhood of Saints Cyril and Methodius. While on vacation with his son in Milan in 1873, Vernadsky learned of the Ems decree. Quite agitated by this news, Vernadsky proceeded to teach his son the true history of Ukraine, not the version taught in schools. He told his sons that St. Petersburg was built on the bones of Ukrainian Cossacks who were exploited for this purpose after Mazepa's "betrayal" (V. Vernadsky, p. 4). According to his grandson George, Vernadsky considered Mazepa to be one of the last fighters for Ukrainian independence and he disliked Peter I, both as a person and for his policies. His grandson also mentions that Ivan Vernadsky was disappointed with his father for forgetting his native tongue. Ivan himself imbued his son Volodymyr with Ukrainian (political) sympathies (G. Vernadsky, p. 30). Vernadsky's attachment to Russia could not have been very strong if, as noted above, he was willing to leave the country late in his life.

A review of Ivan Vernadsky's writings provides strong evidence of his active interest in Ukraine and its problems. After relocating to Moscow, Vernadsky extensively reviewed Zhuravsky's proposals for statistically describing Kiev's school district.¹⁸ In estimating the world's population for the mid-nineteenth century, he treated the Ukrainians separately, estimating their number at ten million (7.5 million "Little Russians" in the Tsarist Empire, 1.4 in the Polish Kingdom and the remainder denoted as Rusnaks, Ruthenians, Rusyns and Lippovans in the Austro-Hungarian Empire) (47, 1859, pp. 3-4). In one issue of his journal, Vernadsky published an article by a well-known Ukrainian writer Panteleimon Kulish about the fate of a mutual acquaintance, a countryman from Chernihiv, whose failures and misfortunes in Moscow led him to the desperate act of suicide. Although this unfortunate person was supposed to have once collaborated with Vernadsky on his publications, it seems that the decision to include this type of an article in an economic journal was made in order to give Kulish a chance to publish.¹⁹ It is necessary to mention that Vernadsky printed *EU* for a while in the St. Petersburg printing house owned by Kulish.²⁰ In a column dealing with current events,

Vernadsky once asked the following: "Why has there been so little sympathy expressed on the part of Great Russians and in general in the capital for T.H. Shevchenko, an extraordinary individual in view of his life, activities, and especially current trends" (*EU*, 1861, no. 273). Another indication of Vernadsky's sustained interest in Ukraine was the frequent publication of articles about the socio-economic development of various regions of Ukraine written by such correspondents as O. Chuzhbynsky, A. Skalkovsky, O. Heisman, O. Bilomorsky, V. Linovsky, M. Bunhe and A. Roslavsky-Petrovsky.

On the other hand, Vernadsky always used such phrases as "our Russian country," "our Russian people," "our great Russian emperor" in his writings. Thus, when it comes to the Empire, Vernadsky did not distinguish between Ukrainians and Russians. His thoughts on countries with ethnically mixed populations were characteristic of this attitude (*EU*, 1860, no. 182). He felt that with respect to consumer preferences, which are influenced by the ethnic background, it would be preferable to have ethnically homogeneous countries. The dynastic ambitions of various governments prevent such conditions. But if a multi-national country already exists, all ethnic groups should be afforded equal treatment. Vernadsky used the Austro-Hungarian Empire as an example of an ineffective solution to the national question and cited as an example Galician Ukrainians whom he called Little Russians. He believed that it would be better if Galicia belonged to the Tsarist Empire, because given the specific tastes of Galicians, the demand for such products as books, fish, caviar and textiles could then be satisfied at lower costs. Vernadsky wrote this in 1860. Presumably, he would not have advocated such a solution after the baleful consequences of the Valuev (1863) and Ems (1873) decrees.

On the basis of the preceding evidence, one can suggest the following conclusion. There is no doubt that Vernadsky considered himself to be both ethnically and territorially Ukrainian or Little Russian (the term commonly used at that time) and as such ethnically distinct from Russians. At the same time as a citizen of the Empire, he considered himself to be "Russky" and in this political context identified himself with the Empire. It seems that in spite of Vernadsky's acquaintance with Shevchenko and his works, Shevchenko's views did not affect Vernadsky's political orientation, nor indeed that of the overwhelming majority of his countrymen on both banks of the Dnieper. This problem of dual loyalty—ethnically Ukrainian but politically associated with Russians—has unfortunately not been fully resolved in Ukraine to this day.

In conclusion, the history of the Vernadsky family can serve as a good example of the ambivalent as well as often doleful development of national political consciousness of the Ukrainian intelligentsia during the nineteenth century. The priest Ivan was probably quite familiar with the Cossack traditions brought from Zaporizhzhia by his father or grandfather. His sermons were certainly delivered in Ukrainian. But his son Vasyly who studied and

lived outside of Ukraine for many years forgot his native language. His son Ivan rediscovered his ethnic roots. Residing as did his father for many years beyond Ukraine's borders, his Ukrainian consciousness was politically immature. Whatever form it took he still tried to instill his convictions into his son Volodymyr. But Volodymyr felt that being Ukrainian was synonymous with being politically engagé and he resolved to devote himself completely to scholarly pursuits. Living in Russia, Ivan's daughters married Russians and totally assimilated into Russian society. Volodymyr and his wife, who was Ukrainian, in spite of the fact that they spent every summer in Poltava region, were unsuccessful in raising their children George and Nina with either political or even ethnically Ukrainian consciousness. Both grew up to be politically active Russians²¹ and during the revolution George worked briefly in General Wrangel's government.

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Ekonomist—*Prilozheniia k Ekonomicheskomu ukazateliu*, 1858; *Ekonomist*, 1859–65.

NOTES

1. Zhmudsky, 1959, pp. 247–48, 629; *URE*, vol. 2, 1960, p. 316; vol. 17, p. 434; *URE*, vol. 2, 1978, p. 190; *URES*, vol. 1, 1966, p. 304; Virnyk, 1956, pp. 188, 190, 191; also a selected bibliography of Vernadsky's works, Sorokovska, 1967, pp. 3, 29–31, 41–43, 88.
2. *ES*, vol. 2, 1892, pp. 38–39; Vladimirsky-Budanov, 1884, pp. 372–74; Sviatlovsky, 1923, pp. 168–69; Bliumin, 1940, p. 80; Liashchenko, 1947, p. 496; 1950, pp. 492–94; 1956, pp. 484–85; Karataev, 1956, pp. 80–93; Karataev, 1957, pp. 139–41; Karataev and Stepanov, 1959, pp. 400–03; Rozental, 1961, pp. 212–13; Zamiatin, 1964, pp. 201–02, 237, 240, 325; and all editions of *BSE*.
3. Karataev, 1956, pp. 86–89; Druzhinin, 1963, pp. 220–21, with a reprint of Vernadsky's "Zadacha statistiki"; Druzhinin, 1957, pp. 12, 14; Savinsky, 1957, p. 53.
4. I am familiar with the following two references to Vernadsky in Western literature: Loria, 1917, pp. 464, 470, with respect to Vernadsky's monograph on Italian economists; Miklashevsky, 1918, pp. 339–40.
5. This biography is based on: Vladimirsky-Budanov, 1884; *ES*, vol. 2, 1899; Vladimir, I. Vernadsky, "Iz vospominanii," (subsequently V. Vernadsky), a copy can be found in "Vernadsky Papers," Bakhmeteff Archive, Columbia University (translated into English in *AUAAS*, vol. xi [1964–68]; at the end of these memoirs there is the date, 18/V/1943 and place, Borovoe Kurort, Akmolinsk oblast and under the appendix the date, 10/VI/1943; George Vernadsky about the history of his family (two folders) in the same archive (subsequently G. Vernadsky); it is an account of discussions held with his father Volodymyr during a reunion in Paris in August 1923 and written on July 29 and 30, 1936, in New Haven, CT.
6. An early interest in Slavistics remained with Vernadsky after he became an economist. In a letter to P. Kulish in 1846 he writes about similarities between Ethiopian and Glagolitic alphabets (the latter is one of the two oldest Slavic alphabets). See Miiakovsky, 1928, pp. 68–69. Ivan Vernadsky passed on his interest in Slavistics to his son Volodymyr. See Apanovych, 1984, pp. 151–52.
7. It appeared as a separate book under the same title in Moscow in the same year.
8. It appears that Maria brought Vernadsky a substantial dowry. According to

Karataev, 1956, p. 91, Vernadsky owned two villages, Shigaevka and Plastikovo, and, as was shown, his father did not leave any property nor could he get rich from his teaching position. Unfortunately, details about Vernadsky's private life and his work and life in Kharkiv as well as about the years in St. Petersburg before his death are sketchy in the sources cited in n. 5 above. Certainly more information about these matters may be found in Ivan Vernadsky's archive, including his diary and notes, preserved at the Academy of Sciences in Moscow. See Tsagolov, 1956, p. 387, n. 1; Karataev, 1956, p. 81, n. 1.

9. *Sobranie sochinenii pokoinoi M.N. Vernadskoi, urozhdennoi Shigaevoi* (St. Petersburg, 1862).
10. *Ekonomicheskii ukazatel* (Subsequently *EU*), 1861, no. 309. For more about this journal, see below.
11. *EU*, 1860, no. 182. The impressions from this trip are the subject of a series of articles in *EU* for 1860.
12. In his capacity as an official of the Ministry of Internal Affairs, Vernadsky prepared a proposal for the emancipation of serfs which can be found in the archive noted. According to Tsagolov (1956, pp. 387–88), Vernadsky does not mention the problem of land ownership after the liberation of the peasants in his proposal. Karataev (1956, p. 92, n. 2) claims that this proposal advocated providing serf owners with all of the land and giving the peasants only the freedom to leave their former masters. Tsar Alexander II was supposed to have liked this proposal so much that he presented Vernadsky with a diamond ring with his monogram.
13. For example, 17, 1857; 20, 1857; 36, 1859; 37, 1859; 40, 1859; and many more (here and subsequently Vernadsky's works are referred to by the number from his bibliography and the year of publication).
14. For example, articles by E. Kor-o, "Krestianskii vopros," *EU*, 1858, no. 63, 65, 67, 68; 1859, no. 128; N.P. Danilov, "O povinnostakh strochno-oboviazannykh krestian k pomeschchikam," *Ekonomist*, 1859, vol. II, book 3.
15. For example, 38, 1859. One can certainly see the influence of Charles Fourier's ideas in these proposals.
16. For example, the letter to the editor, signed "Petersburg cook." See *EU*, 1859, no. 107.
17. See articles by various authors who, probably afraid of being embarrassed, did not sign their names, *EU*, 1859, no. 153; 1861, no. 226, 278, 305.
18. "Plan statisticheskogo opisaniia gubernii Kievskogo okruga, sostav. Dm. Zhuravsky," *Otechestvennye zapiski*, 1853, vol. 88, book 5.
19. "Kak u nas gibnut goriachie liudi," *Ekonomist*, 1862, vol. 5, book 5/6.
20. Vernadsky met Kulish while still in Kiev, before his first trip abroad. After his return, they became friends. But subsequently the friendship cooled somewhat, as can be seen from one of Kulish letters of 1848: Vernadsky would have been "a nice fellow, if he had not accepted French ways so much [*pofrantsuzyvs*]. Maybe, however, with time he will cool to everything foreign, German, that hostile progress that only ruins old ways and will not achieve anything new, permanent" (See Miiakovsky, 1928, p. 93, n. 156). As can be assumed from his later works, Vernadsky did not change his liberal and progressive views and his Western European sympathies. In any case, on the basis of cited facts in the text, one can

assume that some contacts between him and Kulish were maintained.

21. During the Second World War, George Vernadsky corresponded with his father through the ambassador of the USSR in Washington, at that time Maxim Litvinov. In one of his letters, he asks the ambassador to convey a message to his father that he and his sister Nina were active in a Russian relief committee and assures Litvinov that his father would be happy to hear this news (a copy of the letter in George Vernadsky's archive).

Chapter 8

Ivan Vernadsky: An Early Ukrainian Student of Italian Economics

Each [science] aspires only to perfection, but this ideal invariably eludes it, beckoning it towards some remote horizon; and if it were to attain [this perfection], which is impossible, then the progress of this science—this ostensible token of life—would cease, would die away. Its incompleteness and imperfection at any given point in time should not frighten us, therefore, nor lead us to despair: they are vital for our loftier pleasures....

Ivan Vernadsky

Introduction

Ivan Vernadsky, 1821–84, was a prolific writer with a wide range of interests on economics. He paid particular attention to economic theory, history of economic thought, problems of the emancipation of peasants and of agriculture in general in the mid-nineteenth-century Russian Empire, and foreign trade.

The purpose of this paper is to analyze one aspect of Vernadsky's work, his contribution to the history of economic thought and, specifically, his study on the development of Italian economics.¹ The relevant study was presented as a doctoral dissertation at Moscow University in 1849 and, in the same year, was published as a monograph, entitled *Kritiko-istoricheskie izsledovanie ob italianskoi politiko-ekonomicheskoi literature do nachala XIX veka*.² It is a slim volume, 118 pages long, based chiefly on the following three sources: Pietro Custodi, *Scrittori classici italiani di economia politica*, 50 vols. (Milan, 1803–1804); Johann Anton Müller, *Chronologische Darstellung der italienischen Klassiker über Nationalökonomie* (Pesth, 1820); and C-te G. Pecchio, *Storia della economica pubblica in Italia* (Lugano, 1829). No doubt, Custodi's collection is the most important source. In addition, Vernadsky refers to various other writers (e.g., C. Montesquieu, D. Hume, A. Smith, J. B. Say) in the text, without however providing bibliographical information.

The work under consideration consists of an introduction, four chapters, and a conclusion. The introduction contains a discussion of the reasons for the study of the history of economics, especially in 16th–18th century Italy. Four chapters are devoted to an analysis of the views of individual Italian scholars, classified into the following four schools: mercantilist, protectionist, physiocratic, and industrial (subsequently termed classical). Each chapter begins with a general discussion of the school in question. Finally, the most important contributions of the discussed economists are summarized in the conclusion.

The present article will follow the outline of this book. Discussion of Vernadsky's views on the history of economic thought will be followed by the discussion of his views on individual schools. Since space limitations prevent analysis of Vernadsky's views on all of the economists included in his book, we have selected for our investigation probably the most important economists of each of the four schools (Antonio Serra, Pietro Verri, Cesare Beccaria, Ferdinando Galiani).³ Similarly, only the most important of Vernadsky's views on these four economists will be included.

Throughout our discussion, the views of Vernadsky on these problems will be compared with those of recent scholars, especially of Joseph A. Schumpeter, one of the very few scholars outside Italy thoroughly acquainted with the development of economics in this country.⁴ The views of Schumpeter and other recent economists on 16th–18th century Italian economics reflect considerable progress in this discipline over the more than one hundred years which have passed since Vernadsky wrote his book. Moreover, since these views are temporally removed from the period under discussion, they are presumably more mature and balanced than some of the earlier evaluations.

This comparison should enable us to assess in the final part of this paper how good this Ukrainian economist was as a historian of economic doctrines. The purpose here is not to study the work of the early Italian economists, but

rather to discuss and evaluate Vernadsky's views on their contributions. Taking the work of a sculptor as an analogy, we shall attempt to assess what the artist has accomplished with his material rather than to study the properties of wood, clay, marble, or metal which he used. Nonetheless, it is hoped that the present study will also contribute to a greater appreciation of the peak achievements of Italian economics on the part of English-speaking readers. Incidentally, these achievements are not particularly well known not only outside but also in Italy itself.⁵

Development of Economics

It is necessary first to consider Vernadsky's justification for studying the history of economic doctrines and his views on the development of economics in general. The reason for Vernadsky's selection of Italy as a setting for his study will be given in the subsequent part of this paper.

Vernadsky compared existing economic science to the human body with respect to the organic relationship among the individual parts; no one can hope to understand a part in isolation. Neither can an aspect of prevailing economic theory be understood without knowledge of the route by which the scholars have arrived at it. This route of development of economics, is, for Vernadsky, a chain linking successive advances in its progress (p. 4).⁶ Furthermore, the present state of economics is not yet perfect: there are some unexplained problems and gaps. Scholars working on the improvement of the discipline can learn from past teaching, because "many of them [mistakes of past teaching] are much closer to the truth than it appears at first glance; more careful analysis reveals to us the inexactness of formulation rather than the anticipated falsehood"⁷ (p. 5). Thus the history of economics will both protect researchers from repeating the mistakes of the past and indicate the promising avenues for research in the future.

Recent scholars are less certain than Vernadsky that knowledge of the history of economics will aid the discipline's progress. Nevertheless, Stigler (1969, p. 221) for example, conceded that "if the analytical system [of an economist of the past] is well-defined and cleansed of irrelevant digression and inessential error we may determine whether it is a worthy addition to the corpus of the science, or at least a line of investigation that ought to be explored further."

Concerning the development of economic thought, Vernadsky believed that no individual, not even a genius, can originate a new aspect of a science, including political economy, or, more likely, can advance the existing body of economic knowledge. To bring about such an advance, a concrete problem, unique to its own time, must emerge. This problem must be "the definite expression of an idea...not representing anything fragmentary or accidental." (p. 11) (Compare Stigler's antonyms "pervasive" and "persistent" and also

"important" characteristics necessary for an economic phenomenon to have an influence on economic theory.)⁸ This idea or event must attract the attention of the educated classes of that time which understand and respond to the issue. Of course, the solution to the problem will be sought first in existing works (p. 10). But if the old works are unable to provide an adequate answer, scholars, influenced by public opinion, will assimilate the problem and through their creative work modify and advance economics. To support this proposition, Vernadsky cited the example of some European countries at the time of the emergence of political economy (17th-18th centuries). The similar economic and social conditions in these countries provided a background for various economic works, written by their authors independently of one another, but in the same spirit and direction, using the concepts specific to that age⁹ (pp. 11-12).

According to Vernadsky, a change in concrete economic phenomena basically amounts to a change in the relationship between ownership (*vladenie*) of capital (stored labor, for him)—which included slaves and serfs in earlier periods—and labor (p. 16). Depending on the relative importance of one factor vis-à-vis another, different policies have been recommended by economists concerning the relationship between the state and the national economy. Two possible forms of this relationship can be distinguished throughout history: positive (*polozhitelnoe*) and negative (*otritsatelnoe*) approaches. The former requires the external organization of national production and its subordination to definite rules and laws. The latter leaves economic decision-making to private individuals and opposes the participation of government in economic life. There are some rare cases of a compromise between these two approaches (p. 15).

Vernadsky used this framework to explain the development of economics during the period under discussion. In his analysis, mercantilism was dominated by the positive approach, physiocracy and the industrial school by the negative approach, and the protectionist school represented a compromise between these two schools.

Vernadsky believed that the evolution from one economic school to another proceeded in the following way. Mercantilistic thought in many ways resembled that of the ancient Greeks and Romans. Both considered the state's power of primary importance, to which an individual's welfare had to be subordinated. The oppression of slaves by free men-citizens in antiquity in order to increase the wealth of the state was replaced by the willingness of the state to exploit other countries by means of a positive balance of payments during the 17th-18th centuries. Thanks to the change in the relationship between ownership and labor in favor of the latter (slavery replaced by guilds and serfdom), mercantilists paid increasing attention to human welfare (pp. 17-18). The struggle for the emancipation of labor found its expression in physiocratic thought, which included the elimination of restrictions on private

competition. The contributions of this school were the discovery and formulation of the laws of production.

They suffered, however, from certain shortcomings: production was assigned material meaning only, some governmental role in economic life was retained, and certain theoretical elements were sacrificed for practical goals (p. 19). Protectionist attempts to achieve a compromise between mercantilism and physiocracy proved to be a failure (p. 15). Vernadsky did not discuss Smith's school in the same detail as mercantilism or physiocracy in this context. He simply concluded that this school represented the highest achievement of economic theory, while retaining practical recommendations of physiocracy (p. 19).

Scientific process in economics, which Vernadsky discussed only schematically, resembles the process described more broadly and eloquently by Schumpeter. According to the latter, economic topics, especially concerning public policy recommendations, must first "float in the public mind" in order that scholars can form a preanalytic cognitive act, a "vision." Only then can economists proceed, through verbalization, conceptualization, and the assembling or reducing of facts with construction of scientific models (Schumpeter, 1961, pp. 41-42). Thus, both Vernadsky and Schumpeter saw the original source of progress in economics in external events. Recent research, as summarized by Spengler (1968, p. 165), comes to a qualified conclusion: namely, "Thought systems such as orthodox post-1870 economics are much more apt to be relatively impervious to extrinsic influence than the loosely formulated systems of an earlier era."¹⁰ In an analysis of the influence of external and internal factors on the development of economics, using various definitions of the science, the same author finds that, "If we define economics as *political* [author's italics] economy, its development is conditioned by external change" (Spengler, 1968, p. 187).¹¹ Since Vernadsky's work refers, of course, to the 17th-18th century political economy, his methodology for the study of the history of economics is sound from this vantage point.

However, Vernadsky's optimistic belief in the linear progress of the science, characteristic of his time, is not shared by recent scholars.¹² While it would be interesting to examine Vernadsky's views in light of modern developments in the sociology of knowledge, such a task is beyond the scope of this article.

One might object to Vernadsky's assignment of individual economists to his four economic schools without giving an explicit definition of an economic school. This shortcoming may be excused, because it seems that the discipline to date has not fully provided a solution to this problem (Stigler, 1969, p. 227). Nevertheless, according to Stigler (1969, pp. 227-28), individual schools (groups of affiliated scholars) are expected to have at least some of the following three properties in common: (1) a particular set of

views on the discipline or one of its aspects, and there should be scholars outside the school with whom argument could be exchanged, (2) methodology, and (3) a recognized leader. It is apparent from reading Vernadsky's work that in referring to an economic school he had in mind a commonality of views of certain scholars on substantive matters of economics. But in applying this approach to Italian economists, Vernadsky seemed to have been too rigid in classifying them into four definite schools.

Of course, there are major reasons for doing so. In order to see basic differences among these scholars, one need only counterpose the views of earlier writers on the governmental role in economic life with those of later economists. The early mercantilists recommended various governmental measures which, in their opinion, were required to attain a positive balance of payments, while the eighteenth-century writers advocated the complete elimination of governmental and institutional restrictions in economic life. But, on the other hand, there are some topics which appear prominently in all works of the period under discussion: monetary problems, agriculture, and population welfare. There are also some economists in whose writings one can find elements of all four of Vernadsky's schools, for example, Ferdinando Galiani. Finally, there are some authors whom Vernadsky identifies with one school, while other scholars assign them to another school. For example, Vernadsky considers Antonio Genovesi to be the founder of protectionism while Loria (1917, p. 463) calls him "the most illustrious mercantilist."

More recent scholars have approached Italian literature of that time less dogmatically than did Vernadsky. Loria (1917, pp. 461-66) divided Italian economics into the following three groups-periods: (1) archaic, based on primitive patriarchal economic relations, (2) superficial and optimistic, representing nascent modern capitalism, and (3) post-1870 period of modern scientific economics. Thus Vernadsky's economists, those of period (2), are grouped together by Loria (1917, p. 464) because their common characteristic was "the absolute eclecticism with which they perpetually oscillate between the mercantilists and the physiocrats, and strive to reconcile the deductions from both."

Even Italy's well known regional differences did not induce sympathy in individual writers toward a particular school; a common tone is found among the Southerners (Genovesi, Galiani, Filangieri and Broggia), the Northerners (Beccaria, Vasco and Verri) and the Tuscans (Bandini and Paoletti) (Loria, 1917, p. 464; Schumpeter, 1961, p. 177). Schumpeter (1961, Chapter 3), in turn, preferred to call these Italians "consultant administrators and pamphleteers" or more specifically "builders of quasi-systems" (programs for industrial and commercial development). In other words, these writers were authors of contributions, which "though rarely systematic in form, [were] very often systematic in substance." And "it was in them that 'general economics' first took independent shape." (Schumpeter, 1961, p. 160).

Since Vernadsky attributed the origin of change in economic thought to external events, including change in material production, and since they work themselves out through changes in social relations (between ownership and labor), one would expect that such an approach would be viewed sympathetically by Marxists. However, this has not been the case. A Soviet student of Vernadsky, N.A. Tsgolov, had little to say about Vernadsky's methodology, but he was certainly in disagreement with the latter's conclusions. Although Vernadsky did not discuss socialism in the analyzed work, in a more comprehensive book, published about ten years later, he called socialists misguided writers who are motivated more by emotions than reason (Vernadsky, 1858, p. 220). Such a formulation cannot be accepted by those who call themselves scientific socialists.

Furthermore, by grouping together ancient writers, mercantilists, protectionists and socialists into the positive school, Vernadsky, according to Tsgolov (1956, p. 414), "demonstrates ignorance of the fundamental impossibility of a comparison of socialism with any bourgeois system." Therefore, for this Soviet writer, Vernadsky is a bourgeois, liberal economist whose aim in studying economics, "At first glance appears to be...the acknowledgement of objective economic laws. In reality the idea is...to present the laws of bourgeois economy as natural, external laws, supposedly corresponding to human nature itself" (Tsgolov, 1956, p. 366). Certainly, such views are not acceptable to a Marxist expecting to replace capitalism by socialism.

Mercantilists

Vernadsky devoted considerable attention to the mercantilist school which enjoyed great popularity among educated Italians in the 17th-18th centuries. He believed that the main problem of this school was its inability to reconcile or integrate two branches of economics: the theory of value and welfare theory (p. 20), or, in modern times, efficiency and equality, a problem not entirely solved to this day.¹³ Both branches were in agreement on one aspect of economics at that time which became the center of their teaching, namely that money is the source of wealth or is wealth itself. Since money was in the form of metal, and since the objective of economic policy was above all to increase the power of the state and then to improve the welfare of the population, the state was obliged to pursue a policy which would result in the accumulation of precious metals. In the absence of its own mines of precious metals, the state could increase its reserves through a positive balance of payments.

But, according to Vernadsky, precious metals (money) are of different importance to an individual than to a nation as a whole. For the former, metals are the most convenient kind of wealth that can be immediately and

predictably exchanged for other kinds of wealth. For a state, on the other hand, precious metals are one of many kinds of wealth (land, livestock, etc.) within its boundaries. An increase in money (precious metals) for an individual will increase his well-being, because he can exchange it for kinds of wealth more useful to him. An increase in precious metals in a state will increase the well-being of its citizens only to the extent of their intrinsic value; there is no concurrent increase in other kinds of wealth. Focusing their attention on the desirability for the state to have reserves of precious metals (money), mercantilists, argued Vernadsky, "raise the contemporary economic category of the individual economic entity (*chastnoe khoziaistvo*) to the national economy category (*narodnoe khoziaistvo*)" (p. 22).¹⁴ Or, we may say, mercantilists were in this respect guilty of the fallacy of composition.

Thus, through an emphasis on the accumulation of metals primarily through a positive balance of trade, the state did nothing to improve the welfare of the population. Vernadsky perceived the incongruity between these two branches of economics in the following three results (p. 18): (1) The value of output available for domestic consumption was less than the value of demand (presumably originating in production). (2) The quality of output did not correspond to the contemporary demand. This point was not elaborated by Vernadsky. It is difficult to understand why the quality of goods supplied should not have corresponded to that of goods demanded. It may be assumed that, in view of the mercantilistic emphasis on export, the product mix of domestic industry was influenced by the preferences of foreign countries. (3) Producers (workers) were not assured necessary subsistence, a fact which gave birth to the proletarian class (p. 24). Since mercantilism could not resolve these imbalances—even worse, it fostered them—it had to give way to a new, more progressive, school of thought.

Students of mercantilism debated a still unresolved issue for a long time: namely, whether this school had developed a comprehensive theory. The reason for divergent and often contradictory views is to be found in the heterogeneity of mercantilist writers with respect to the period and location of their activity and the policy recommendations corresponding to these two factors (Spengler, 1960, pp. 9–10). This issue had already caught the attention of Vernadsky. In general, his study led him to a low esteem for mercantilistic theory. He concluded, "It [mercantilism] had neither the unity of construction nor were all of its conclusions logical." On the other hand, "the mere fact of its lengthy influence on the educated world and of its exceptional longevity compels us to assume that it [mercantilistic theory] was not a product of ignorance but stood on firmer grounds" (p. 25).

This ambiguous evaluation is shared by various recent authorities. Considering theory as intellectually autonomous discussions aiming at objectively accurate solutions, Heckscher found it "difficult to deny that in fact some part of 17th-century economic thought fulfills these requirements.

And so it cannot be gainsaid that even at that time there was really a scientific mercantilistic theory if only of a rudimentary kind" (Heckscher, 1955, p. 27). Schumpeter's ambiguous evaluation of these writers appears throughout his book.¹⁵ The following can be considered as representative: "though pieces of genuine analytic work can be found occasionally and attempts at analysis more frequently, the bulk of literature is essentially preanalytic" (Schumpeter, 1961, p. 348). Spengler (1960, p. 17) found the negative judgement as distorting, "for the mercantilists brought into the arena of discourse many issues that had tended to escape critical examination as long as economic theorizing was concerned largely with questions of commutative and related justice, and as long as ethical preconceptions tended to place diverse matters outside the bounds of discussion and controversy." On the other hand, in a recent work, Allen denied any value to mercantilistic theory, particularly the writings related to the price-specific-flow mechanism. He also rejected a defense based on a relationship between these writings and contemporary problems.¹⁶ He concluded that, "the quality of the intellectual response [of mercantilists] to the initial observations...was low" (Allen, 1970, p. 396).

The difference in the evaluation of mercantilistic contributions to the economic theory by these scholars may be attributed to the difference in literature they surveyed, which varied from one country to another (Schumpeter, 1961, p. 149), particularly concerning policy recommendations (Gerschenkron, 1969, p. 4). Heckscher, Spengler, and especially Schumpeter included in their analyses works from various countries among which Italy was prominently represented. Allen referred to the English literature only. One could infer that the Italians were better theorists than the mercantilists of other countries.¹⁷ In any case, by offering a judicious evaluation of Italian contributions, Vernadsky showed a sound understanding of economics shared a hundred years later by the foremost specialists.

Among the Italian mercantilists, Vernadsky demonstrated a high regard for Antonio Serra. However, he disagreed with some Italians, who called this 17th-century writer, about whom little is known, a father of political economy. Vernadsky thought that this high honor was bestowed on Serra as a result of local patriotism. In Vernadsky's view, Serra was not an original thinker, but was influenced by the writings of Gasparo Scaruffi and Bernardo Davanzati (p. 32).

Only the first six parts (out of nine) of Serra's works *Breve trattato delle cause che possono far abbondare li regni d'oro e d'argento, dove non sono miniere*, 1613, were of interest to Vernadsky. These parts provided recommendations for the accumulation of money (precious metals), because, as Serra began, "How important it is, both for people and for princes, that a kingdom should abound in gold and silver, and what great advantages this conveys."¹⁸ Having paid this tribute to the spirit of mercantilism, Serra turned

his attention to the analysis of sources of wealth. He classified them into natural (mines of precious metals) and collateral. The latter were divided into peculiar (advantages in production and location) and common (preferences of industry over agriculture, the quality of the population, the importance of trade, and good government). Vernadsky correctly pointed out that Serra confused the natural sources of precious metals and of local advantages with the actual sources of output. According to the contemporary state of economics, Vernadsky said, labor is the only source of output and thus of wealth (p. 33). In his discussion of Serra's mercantilistic preference for industry, Vernadsky missed one of this writer's important contributions. Serra was probably the first economist to state the law of increasing returns, applicable to industry. But he failed clearly to see the law of diminishing returns in agriculture (Monroe, 1945, p. 147).¹⁹

Vernadsky occasionally found some of the crass prejudices (*predrazsudki*) of mercantilism in Serra's work. On the other hand, Cossa (1880, p. 126) credited Serra with avoiding its extreme excesses. Despite some errors in the Italian's work, Vernadsky acknowledged Serra's attempts to penetrate into the nature of a country's wealth and "to bring the prevailing views on sources of wealth into a mutual relationship, into a system" (p. 31). A similar sentiment was expressed by Schumpeter (1961, p. 194), who stated that Serra must "be credited with having been the first to compose a scientific treatise, though an unsystematic one, on Economic Principles and Policy."

Although Serra's book was appreciated by subsequent generations of economists, its influence during the mercantilistic period was limited. On the other hand, a book by Girolamo Belloni, published in 1750, and later translated into various languages enjoyed much wider popularity, bringing fame and honors to its author. According to Vernadsky, this book was not only badly written (replete with contradictions and non sequiturs), but also was representative of the worst of mercantilistic errors. Vernadsky extensively criticized the work (pp. 34-38). He pointed out the following fallacies: the objective of the state to be the accumulation of money; the difference between external and internal value of money (precious metals); the stability of the value of precious metals as a reason for their functioning as money; the possibility of one country gaining and another losing through foreign trade; population increase as a precondition for industrialization and the subsequent decrease in the cost of living. Cossa (1880, p. 140) also had a low opinion of Belloni's scholarship. Schumpeter did not even mention this Italian in his comprehensive book. On the other hand, Belloni was highly praised by Sir James Stuart (Loria, 1917, p. 462).

In addition to Serra and Belloni, Vernadsky discussed several other Italian mercantilists. In general, he rated them somewhere between these two representatives of good and bad writing. Vernadsky paid considerable attention to Gasparo Scaruffi (1515-84) and Bernardo Davanzati (1529-1606).

Both were concerned primarily with the currency problem. Vernadsky agreed with some of their ideas and disagreed with others. He summed up positively the contributions of the former who was the first to explain the nature of money and its importance for the national economy and also ways of improving the monetary system. Scaruffi "discharged it [responsibility] exceptionally satisfactorily in view of his time (XVI century)" (pp. 25–26). Schumpeter (1961, p. 92) echoed this evaluation, stating that Scaruffi's writing "admirably illustrates the range of sixteenth-century thought." Despite various critical comments on Davanzati's work,²⁰ Vernadsky found it "a remarkable phenomenon in the contemporary political-economic literature. In it the idea that wealth is not contained in money but in...real goods is clearly expressed" (p. 28). However, Vernadsky overlooked Davanzati's other important achievements. According to Schumpeter (1961, pp. 300, 316), one could already find in Davanzati's work an understanding of the paradox of value and a shadow of quantity theory of money.

Vernadsky considered Antonio Broggia (1683–1763) and Gian-Rinaldo Carli (1720–95) to be epigons of mercantilism. Broggia still argued for the state's need to accumulate reserves of precious metals and grain (i.e., the two objectives of mercantilism: power of the state and population welfare) (p. 41). Vernadsky found Broggia's writing exemplary and indicative of great talent (p. 39). Schumpeter (1961, p. 205) had an equally high opinion of Broggia and considered his work to contain "all the best, not only in the public-finance literature of the eighteenth century but also in most of that of the nineteenth." Carli was concerned mostly with foreign trade, but Vernadsky thought that his writing was "the last, pale expression of mercantilist thought" (p. 45). Vernadsky did not rate highly the works by Marc-Antonio De Santis (his 1605 work was attacked by Serra), Gian-Donato Turbolo (published in the early seventeenth century), Giorgio-Francesco Pagnini (1715–89), and Pompeo Neri (published in 1751).

Nevertheless, they deserved attention, in his view, because one could trace

how the mercantilist concept of this subject [money, precious metals] slowly made way for another view, more intelligent and more correct, how gold after each study was falling lower from the heights to which it was raised by short-sighted ignorance...but on the basis of slowness of its fall we can appreciate the power of the faith into its magic characteristics" (pp. 29–30 n).

Protectionists

Although Vernadsky termed a number of Italian economists "protectionists," he was aware that they did not represent a well defined school of economics, comparable to mercantilism or physiocracy. In fact, the views of these writers varied with respect to some specific problems of economics. They shared a

common view on the need for the growth of industry, best accomplished through the protection of this sector from foreign competition. In contrast to mercantilists, protectionists considered population welfare as an objective of overriding importance and free domestic markets as the means for attaining this goal. According to Vernadsky, protectionists were inconsistent in terms of their theory and practical recommendations.²¹ He approved their theory of value and their call for free markets, but rejected their advocacy of state intervention in foreign trade. For him, this recommendation did not follow from protectionists' theory, but was "a shadow of disappearing mercantilism" (p. 47).

On the basis of his book *Meditazioni sull'economia politica*, 1771, Pietro Verri (1728–97) was considered by Vernadsky to be one of the most important Italian protectionists. For this Milanese public servant the key to the understanding of production efficiency and, consequently, population welfare was the price theory (equated by him to the theory of value) which he presented in an exemplary fashion. Price should not be influenced either by the state or by guilds; it should be determined through the supply of producers and demand of consumers.²² Anticipating Adam Smith, Verri wrote, "when private interest coincides with public interest, there public welfare is assured" (Müller, 1820, p 264).

Despite his high praise for Verri, Vernadsky disagreed with him on a number of points. Verri assumed that the economy would be stimulated more by an increase in money (meaning incomes) resulting from growing industry than without such an effort, for example, from precious metals mining (in view of metallic money) or originating in other nations. Vernadsky pointed out that the statement could be correct only in specific cases. It is unclear which exceptions Vernadsky had in mind (p. 60). While Verri disagreed with the physiocrats who argued that only the agricultural sector of the economy was productive, at the same time, he made a distinction between the industrialist and the landowner, maintaining that only the former was an entrepreneur. Vernadsky considered both to be equal and called the landowner an agricultural entrepreneur (p. 61). Finally, Vernadsky rejected Verri's classification of the population into producers, middle men (traders), and consumers. Such a classification lacked scientific value, in his view. Moreover, it led Verri to argue mistakenly that an increase in consumption could only come about in response to an income increase of the last group (pp. 63–64). Vernadsky put the problem in today's terms when he said that "an increase in consumption will not take place as a result of an increase in the number of consumers [Verri's third group], but as a result of an increase in demand [of all three groups] and the means for its satisfaction" (p. 65).

Unlike the mercantilists, Verri opposed restrictions on exports of raw materials, especially of grain. He was theoretically in favour of free trade, because it brought nations closer together and improved the welfare of their

populations. But the reality was different. Some nations imposed tariffs, which had a negative effect on the exporting country. For Verri, this act justified retaliation by the latter, i.e., to the imposition of tariffs on its imports and compelling the country which initiated the tariffs to pay more for the products imported from the retaliating country. Vernadsky wondered why Verri expected a country to be forced to pay more for its imports. Furthermore, the tariff policy of the retaliating country would result in a decrease in consumption for its population (p. 66). He concluded, "It is impossible not to see the successes in theory which he [Verri] utilized in his evaluations of main economic phenomena, if we compare them with those of his predecessors; therefore his protectionist propositions sound even more strangely incompatible" (p. 68).

Vernadsky considered Verri an excellent economist (p. 58), a view shared by McCulloch (1845, p. 26) who called him "the most distinguished of the Italian economists." While Cossa (1880, p. 157) also praised Verri's contributions, he nevertheless considered him "inferior to (his friend) Beccaria in the philosophic culture and a less accurate though more facile writer." Schumpeter (1961, p. 178) had enough respect for Verri to include him in any list of great economists. While Vernadsky was concerned mainly with Verri's views on the practical problems of national economy, Schumpeter drew attention to Verri's contributions to economics as a science. He called Verri a scientific economist, who understood utilitarian philosophy and public finance, and who developed a precise form of the demand curve, being in this respect a predecessor of Cournot and Marshall. Verri, he believed, was also a true econometrician and a successful historian.²³

Antonio Genovesi (1712–69), the first holder of the first chair in Political Economy in the world (1754) at the University of Naples and an influential personality in his time, was another prominent protectionist discussed by Vernadsky. Vernadsky considered him well educated (i.e., thoroughly acquainted with English economists) and a compassionate person. His presentation was refined and absorbing. Vernadsky would probably have disagreed with Schumpeter's judgment (1961, p. 177, n. 11), as he did with that of McCulloch, that Genovesi's work sometimes lacked rigor.²⁴ (p. 54). But he would probably have agreed with Cossa (1880, pp. 154–55) that Genovesi, "the most learned among the Italian economists of that century summed up the older learning on the subject, but did not help in its further progress."

Genovesi's views on economic problems, presented in his book *Lezioni di commercio ossia di economia civile*, 1678, were similar to those of Verri. Of course, the problems of foreign trade played a prominent role. Vernadsky drew attention to some of Genovesi's errors. For example, the latter proposed to limit exports to those commodities in surplus at home. Imports were to be restricted to raw materials and commodities not produced domestically. But

any restriction on imports, stated Vernadsky, was bound to curb exports. Genovesi's fear that extensive foreign trade would lead to the dependence of a country on other countries was also rejected by Vernadsky; such trade would simply imply a developed geographical division of labor. More important, these proposals by Genovesi were contrary to his objective of improving the welfare of the population²⁵ (p. 55).

Vernadsky also included Giuseppe Palmieri (1721–94) (p. 58) and Domenico Caraccioli (1715–89) in the protectionist school (p. 68). Both were administrators and, in addition to their economic writings, attempted to implement protectionist principles in practice.

Physiocrats

Vernadsky considered physiocracy to be a superior school of economics to mercantilism and also, interestingly, to Adam Smith's industrial school. Mercantilism represented a collection of economic writings conceptually disjointed from one another, while Smith and his followers were concerned with a rather narrow range of analysis, limited to the subject of value. On the other hand, "physiocracy embraces the entire social order and touches on its most extreme aspects" (p. 69). Relying on the philosophy of natural order, the physiocrats were "the first to give a systematic form to its [economics] exposition, brought its principles into a mutual organic relationship, and made possible the application of analytical methodology to it and, consequently, its further correct development" (p. 69).

The emphasis of physiocrats on theory was, according to Vernadsky, the strength of this school as well as its weakness (pp. 69–70). In an effort to generalize and integrate all social life into one theoretical system, the physiocrats overlooked a wide variety of existing economic phenomena. The incongruity between theory and reality led Quesnay and his followers to make erroneous recommendations about government's role in economic life. Vernadsky gave the following two examples of such recommendations: (1) The principle of laissez faire tells what not to do, but not what to do. But natural law, the basis of physiocratic thinking, does not preclude human intervention into the physical world and, by the same token, should not preclude governmental intervention into social life. Unfortunately, Vernadsky did not elaborate this proposition further; he did not suggest the possible forms of or the necessary conditions for government activity. (2) According to the physiocrats, the net product (the excess of production over the cost of production), among all economic sectors, is created only in agriculture. Even though the net product belongs legally to the land owners, this class is not its only user. The land owners share the net product with the productive class (agricultural workers) and the sterile class (workers in industry and trade). As a result, Vernadsky argued that taxes should not be paid exclusively by the

proprietary class, but by all three classes (p. 70–71). This formulation suggests that Vernadsky was an adherent of a fiscal approach favoring consumption and not production as the basis for taxation.

Vernadsky also criticized the physiocrats for considering land as the sole source of net product and the increase in wealth (p. 71). According to him, the physiocrats forgot that matter can constitute wealth only if it has the property of value, and that value cannot be contributed by land (p. 94). About half a century later, Gide (and Rist, 1948, p. 16) used almost identical terms in his work: "The net product was just an illusion. The essence of production is not the creation of matter, but simply the accretion of value." However, Gide and Vernadsky had somewhat different opinions about physiocratic thinking concerning the role of labor in production. For Gide, it was strange for physiocrats to argue that the most legitimate and superior kind of wealth, the net product owes nothing to labor (Gide and Rist, 1948, p. 17). No doubt under the influence of such prominent Italian physiocrats as Beccaria, Vernadsky had more understanding of the physiocrats' thinking than Gide. Vernadsky wrote that the physiocrats' appellation of agricultural labor as "productive" is progressive. This notion drew attention to the participation of labor along with the ownership (of land) in the productive process, a theoretical contribution of historical importance for the development of economics (pp. 71–72).

In his selective presentation of physiocratic teaching, Vernadsky dismissed Quesnay's statistical support as useless (p. 70) and did not even mention the term "tableau economique." This was no doubt the result of the lack of interest on the part of the Italian economists discussed here in this methodological and theoretical innovation by Quesnay. In fact, Beccaria, the most important among them, was not even acquainted with the tableau economique (Groenwegen, 1983, pp. 51–52). While Vernadsky may be forgiven for his lack of trust in Quesnay's statistics, an understanding of the significance of the tableau would have contributed enormously to his standing in the history of economics, from today's vantage point.

In general, Gide (and Rist, 1948, p. 3) shared Vernadsky's positive evaluation of physiocracy as an economic school. Schumpeter (1961, p. 232) was of similar opinion although he reduced the school's contributions to those of its founder Quesnay. He believed that Quesnay, while probably overestimated as a liberal economist, has been underestimated as a scientific economist.

Among the Italian physiocrats, Vernadsky considered Cesare Beccaria (1735–93) an "excellent economist" on the basis of his book, *Elementi di economia pubblica*, 1768, and paid special attention to his contributions. Beccaria's inclusion of labor problems in his work distinguished him from his French counterparts, who largely ignored them, and placed him above contemporary economists. In this respect, Beccaria was much closer to Adam Smith than to Francois Quesnay (p. 74). Vernadsky's contemporary McCulloch

(1845, p. 28) considered Beccaria's book unworthy of a man of his fame, because in it he "adopts the theory of Economists [physiocrats] with respect to the unproductiveness of manufactures and commerce." It seems that Beccaria's stature grew with time. Cossa (1880, pp. 156–57) considered him superior to Genovesi, with good ideas on various economic problems, but unfortunately a protectionist in foreign trade. Schumpeter (1961, p. 180) had the highest praise for this Italian economist. Suffice it to say that he (and later Groenwegen) placed Beccaria on a pedestal alongside Smith and Turgot. Both Beccaria and Smith "were sovereign lords of a vast intellectual realm that extended far beyond what, even then, was possible for ordinary mortals to embrace." Recently, Groenwegen (1983, pp. 39–40) concurred with Schumpeter about the breadth of Beccaria's interests outside economics and credited him with building an economic system.

Three areas of Beccaria's treatment of labor were of interest to Vernadsky.²⁶ (1) Beccaria described various factors determining the level of wages, such as quantity and skill of labor as well as danger and unpleasantness of work, but considered the cost of subsistence of the worker in the least remunerated occupation as a starting point. On this basis, Vernadsky included Beccaria in the group of adherents of the subsistence wage theory.²⁷ But, referring to the work of Sir Robert Peel, Vernadsky preferred supply and demand analysis as the explanation of the wage level. (2) Beccaria is generally considered one of the first to expound on the advantages of the division of labor. According to Vernadsky, he described this phenomenon and its benefits thoroughly and well, but such a presentation "gives a picture of the rise of various classes [estates] and occupations without showing its indirect effect on production and population welfare" (p. 76). Furthermore, Beccaria failed to provide an analysis of the division of labor general enough to be applicable to all situations. Vernadsky therefore considered Beccaria's analysis inferior to that of Adam Smith. (3) Finally, Vernadsky wondered how Beccaria, having made such a fine contribution to the analysis of labor, could commit the error (of course, a result of physiocratic influence), of dividing labor into productive and nonproductive categories (p. 75).

Vernadsky's presentation of Beccaria's work is rather incomplete. The focus on labor problems does disservice to Beccaria's breadth of interests in and contributions to other areas of economics, comparable and sometimes superior to those of Smith and Turgot (cf. Schumpeter, 1961, p. 308; Groenwegen, 1983). In addition to labor, Beccaria (1970) analyzed the methodology of economics, development of agriculture, manufacturing and commerce, population problems, utilitarian philosophy, price formation, the theory of value, and monetary economics. He can also be considered a precursor of the marginalists of the second half of the nineteenth century and of modern mathematical economists.²⁸

Another problem with Vernadsky's treatment of Beccaria is his classification of this scholar with respect to an economic school. Though Vernadsky included Beccaria with the physiocrats, he pointed out the Italian's lack of enthusiasm for free grain trade, as advocated by this school (p. 77). Beccaria would have made trade free or regulated depending on existing conditions. Cossa (1880, p. 156) faced the same problem when he stated that Beccaria "only partially accepted physiocratic doctrines, and wavered between these and mercantilist theories." Schumpeter (1961, p. 224) was inclined not to consider Beccaria a physiocrat. He noted that this economist—and also Genovesi and Verri—were friendly to the physiocratic school, "But as far as analysis and policy is concerned, this friendliness meant little more than occasional lip service to specifically physiocratic tenets and should not mislead us into calling them physiocrats." However, a recent researcher, Groenwegen (1983, pp. 43–44, 52, 58, n. 20), concluded on the basis of the sources used by Beccaria (primarily Cantillon and early Quesnay) that Beccaria's analysis of agriculture was along physiocratic lines, but admitted that there is a divergence between Beccaria and Quesnay with respect to grain trade. Finally, Beccaria's failure to discuss the theory of distribution, a favorite topic among physiocrats, might have resulted from not completing his work according to an original outline.

In addition to Beccaria, Vernadsky considered the following Italian economists as physiocrats: Sallustio Antonio Bandini (1677–?), Ferdinando Paoletti (1717–1801), Giambattista Gerardo D'Arco (1739–91), Gaetano Filangieri (1752–88), and mentioned Domenico de Gennaro Cantalupo and Saverio Scrofani. Bandini is considered a precursor of the physiocratic school and the essence of his teaching was cited by Vernadsky with approval: "a few simple laws, freedom of trade and export, taxes collected from the rich and considerate of the poor worker—they are in a few words the means appropriate to reduce the poverty of a country and to facilitate the growth of agriculture" (p. 74). Paoletti, D'Arco, and Filangieri, in addition to the usual physiocratic economics, had in common a legalistic approach to the *laissez faire* principle. They claimed that since there is a legal guaranty of private ownership, there should also be a guaranty of freedom for all economic activity.

Filangieri was noted for his work on population problems. He argued that the objective of economic life is not only the maximization of wealth but also the increase of population. To achieve the latter goal, agriculture must be able to support this increase. The maximization of agricultural output would be possible only under conditions of governmental noninterference. Vernadsky agreed that while the medieval and mercantilistic restrictions on the development of agriculture, criticized by Filangieri, were harmful, "it does not follow that all restrictive institutions are harmful; for the success of agriculture, apart from freedom, capital and skills are necessary which depend on freedom, but do not spring from it directly" (p. 84). It is likely that Vernadsky suggested

here a role for government in facilitating capital accumulation and improving skills.

Industrial (Classical) School

Vernadsky's entire work shows that he was a determined and staunch follower of the industrial or classical school. He was convinced that the teaching of this school represented a breakthrough in the science of political economy (pp. 89–90). Progress in this school was largely a result of the genius of Adam Smith, who was the first to apply consistently the analytical approach to the individual aspects of this science. He also formulated various laws which are amenable to empirical testing by scholars. Political economy is no longer an empty generalization or quackery full of paradoxes. Nor does it impose its views on people or beg for excuses when its propositions are at variance with reality.

[It] draws a picture of contemporary society with an inexorable precision, illuminates its [society's] various aspects, and with detachment describes its virtues and defects. Private persons, governmental institutions, and laws appear without a call before its tribunal to be judged; using its research and according to its teaching the public opinion evaluates a [economic] phenomenon and reaches a conclusion. The science appears to be superior to the views of wise men and is a lawful counsel in the course of social development. Its theory has deeply penetrated the consciousness of educated [segments of] civilization; its necessity is accepted without doubt by all governments caring for the welfare of their people; its advantages are not rejected even by the most backward brains with their deeply rooted prejudices (pp. 89–90).

Having expressed this paean, Vernadsky was aware that classical economics is far from perfect, and that there were areas that required further improvement. Vernadsky singled out the following three areas in need of solutions (p. 90): (1) Economic theory is characterized by the existence of duality; there are two basic components, now called efficiency and equality, which, as mentioned earlier, are not fully integrated. (2) Economists in their research often take existing facts for immutable phenomena. (3) Thanks to the physiocrats, economics is in general a positive science but there is an obvious lack of formulation of the normative component. Vernadsky limited himself to listing these problems; he did not elaborate them. Since he wrote the book, there has been remarkable progress in economics. While one cannot observe much of an advance toward the solution of (1), progress with respect to (2) and (3) has been considerable. The widespread use of mathematics and econometrics has helped economists to avoid the fallacy of generalizing the particular. The emergence of welfare economics at the beginning of this century supplemented the positive content of economics with its normative complement. Vernadsky's formulation of the burning problems of classical

economics, which needed to be resolved, shows his thorough understanding of the discipline and of its development.

Of the economists representing this school, Vernadsky paid most attention to Ferdinando Galiani (1728–87). This Neapolitan abbé is no doubt the most widely known of all Italian economists outside Italy and there is extensive literature about him in many languages. Quoting Filangieri, Vernadsky called Galiani a genius of unusual ability (p. 91). Galiani wrote only two books on economics, some twenty years apart. Vernadsky analyzed only the earlier one, *Della Moneta*, 1751, written when the author was very young.²⁹ Nevertheless the book dazzled contemporaries with its depth and soundness of argument. The other book was *Dialogues sur le commerce des bles*, 1769. Since it was written in French and published in Paris, Vernadsky excluded this book from Italian economics.

Although the title of Galiani's book refers to money, its scope is much wider. Considerable attention is paid to the theory of value. Vernadsky had no objections to Galiani's utility or demand theory.³⁰ He also accepted his supply theory, and would certainly have agreed with a modern researcher, Toscano, that Galiani's supply theory is in the tradition of stock land and labor theory (Toscano, 1977, pp. xxv–xxvii). Vernadsky, and subsequently Schumpeter (1961, p. 302) objected to the exceptions to this theory proposed by Galiani (1977, pp. 28–29). Vernadsky found Galiani incorrect in stating, for example, that the value of minerals, stones, and marble is determined by labor only, while land's contribution is limited to its influence on the labor requirement. Vernadsky correctly pointed out that the supply of cheap granite and expensive marble, for example, requires the same amount of labor, but that the prices of these two commodities are vastly different (p. 92). Of course, land as a gift of nature has something to do with this since marble is scarcer than granite in view of given demand.

Galiani's presentation of the monetary problem, the main topic of his book, and of population welfare³¹ appeared straightforward and noncontroversial to Vernadsky. A point in this discussion, indicating Vernadsky's economic perspicacity, deserves mention. In his enumeration of the properties of metallic money, Galiani included guaranty along with divisibility and convenience. By guaranty Galiani meant the confidence of the receiver of the money in obtaining something of equal value in the future for the object, which he gave up for this amount of money (today, the store of value property). In this property, Vernadsky saw "the embryo of economic trust, credit, based on guaranty which is so fruitful and beneficial to society even now, still in an early stage of its development" (pp. 95–96). The problem of credit also appeared in his discussion of Galiani's population welfare. Vernadsky considered Galiani the first Italian economist to note that the mere level of output is an insufficient indicator of the welfare of a country's population. The distribution of this output is also important. By the term

distribution, Galiani and Vernadsky did not mean functional (among the factors of production) distribution, but rather the distribution of output to consumers, an economic activity which today we would call marketing. Galiani believed that for such a distribution to be efficient, the soundness of the monetary system as well as other institutional arrangements are required. Vernadsky added that an efficiently functioning credit system is of primary importance here (pp. 97–98).

Galiani devoted considerable attention to the problem of wealth. He defined this concept as that thing which is desired more by others than by its owner. Galiani included in wealth the elements (gifts of nature) and goods for sustenance of life and pleasure (Galiani, 1977, p. 110). Among the former, was included man. Vernadsky disagreed with such a formulation and argued that elements as well as man, even in the case of slavery, are not valuable for their own sake, but because of their ability to produce wealth. In other words, according to Vernadsky, Galiani confused the sources of wealth with wealth itself (p. 94). Furthermore, Vernadsky objected to Galiani's attempts to use man as the ultimate measure of value, i.e., the annual product of a man is equal to the cost of his subsistence expressed in money. He found two deficiencies in such a formulation: the minimum subsistence level and the value of money vary over time and among countries. Accordingly, the value of commodities consumed by man cannot be an objective indicator (p. 94). This criticism of Galiani's idea was recently expressed in almost the same terms by Toscano (1977, p. xlii).

In conclusion, Vernadsky had the following to say about Galiani's work:

The main deficiency which we notice in Galiani's views is the striving for paradoxes. Yet, it is necessary to acknowledge his power of thinking, precision of expression, depth of views, and the substantiveness of his conclusions: therefore, his book should be considered without doubt as one of the most important in Italian politico-economic literature. Thanks to his influence, Naples has an orderly and efficient monetary system, which until that time was in rather sad shape; and Italian political economists who came after him, even though belonging to different schools (Beccaria, Verri, Filangieri), were not free of his influence, and partially owe to him the correctness of some of their theoretical views (p. 99).

McCulloch (1845, p. 190), who was rather stingy with praise for Italian economists, considered *Della Moneta* "the best of money treatises published in Italy." Schumpeter (1961, pp. 188, 300–301) also held Galiani in high esteem, especially for his formulation of the theory of value, considered to be superior even to that by Smith. However, Vernadsky did not discuss this aspect of Galiani's work extensively. Galiani's contribution to monetary economics was highly praised by Vernadsky (pp. 95–97) as well as by recent scholars.³²

Is Vernadsky correct in placing Galiani in the classical school? The selection of money as the main topic of his book certainly betrays mercantilistic influence. The emphasis on natural law, freedom in economic life, and agriculture as the key economic sector points to physiocratic influences. Placing the theory of value, including the importance of labor, in the foreground of economics makes him a precursor of classical economics. Making the regulation of foreign trade subject to current conditions shows his pragmatism. It is understandable that various economists have classified Galiani differently. For McCulloch (1845, pp. 189–90), Galiani was a zealous mercantilist “deeply imbued with some of the worst prejudices of the mercantilist system.” According to a recent Polish scholar, what physiocratic sympathies Galiani had, he abandoned after a visit to England (1767) (Zaboklicki, 1966, p. 99); so he was neither a mercantilist nor physiocrat, but criticized everything a little (Zaboklicki, 1966, p. 92). A Swiss scholar called Galiani more than a mercantilist and more than a physiocrat (Ganzoni, 1938, p. 144); he was a subjectivist concerning the theory of value, thus anticipating the Austrian marginalist school, and a relativist with respect to foreign trade (Ganzoni, 1938, pp. 144–47; Sommer, 1926, pp. 335–36). Since Galiani emphasized the importance of labor in the determination of value, according to one source, J.B. Say and Karl Marx considered his theory a labor theory of value (Ganzoni, 1938, p. 37). With respect to monetary theory, “he definitely appears as an outstanding exponent of the classical tradition,” to a recent scholar (Cesarano, 1976, p. 398). As we observed earlier, Schumpeter had difficulty in determining Galiani’s school affiliation (as well as that of other Italian economists).

To repeat, Vernadsky analyzed Galiani only on the basis of his earlier book. He associated this Italian economist with the classical tradition and, thus, of all the diverse strands found in *Della Moneta*, he gave the most weight to the theory of value, the theory around which classical economics is constructed. This proves that Vernadsky considered the value theory of fundamental importance in economic science, a judgment with which modern mainstream economists would hardly disagree. This case illustrates further Vernadsky’s profound understanding of economics.

In addition to Galiani, Vernadsky discussed or mentioned several other Italian economists as members of the industrial school. The most important among them is no doubt Giammaria Ortes (1713–90). Vernadsky considered him an original thinker and a forerunner of Malthus (pp. 99 ff.). Schumpeter (1961, pp. 178, 255) also considered this Venetian a precursor of Malthus, while Loria (1971, p. 464) called him “unquestionably the most original thinker among all Italian economists” and “one of the greatest economists of the 18th century.” On the other hand, McCulloch (1845, p. 265) had a low opinion of Ortes and believed that Custodi’s collection would have benefited by the omission of seven volumes of Ortes’ works. Filippo Briganti

(1725–1804), Ludovico Ricci (1742–99), and Giambattista Vasco (1733–96) emphasized in their writings the problem of population and welfare. While Ricci had something interesting to say with respect to various governmental measures to help the poor (pp. 106 ff.), his analysis of population (as well as that of Beccaria) was too superficial for Loria (1917, p. 464) to call him a precursor of Malthus. I. Scottoni, Francesco Mengotti (1749–1830), and Giambattista Corniani (1742–1813) paid attention in their works to the importance of free trade. Finally, Melchiorre Delfico, Ludovico Antonio Muratori (1672–1750), Melchiorre Gioja (1767–1829), and Antonio Scialoja (1817–77) were also mentioned by Vernadsky as members of this school.

Conclusions

Before Vernadsky's summary evaluation of Italy's economics can be given, the economic conditions in this country need to be mentioned, because they gave rise to such remarkable growth of the discipline. During the mid-16th century Italy began to experience severe economic difficulties. Thanks to the development of agriculture, crafts and international trade, the country was one of the most prosperous in Europe until that time. But now various regions were invaded and dominated by foreigners who disrupted economic life and exploited the population. The fragmentation of the country into a number of small independent states, often at war with each other, led to the proliferation of currencies which had in common the tendency toward constant deterioration. The discovery of new trade routes shifted the trade centers from Italy westward. The imbalance between population needs as well as government requirements and the ability of the economy to satisfy them became increasingly apparent (p. 12). As a result, the educated segment of the population concerned itself with these problems and searched for solutions. This interest was stimulated by the wide acquaintance with the works of the ancient Greeks and Romans (pp. 8–9).

A rich literature developed on this soil that analyzed the reasons for the existing economic problems and supplied recommendations for solutions. Italian economists were the first to apply analytical and abstract reasoning to economic concepts (p. 7). Vernadsky cited the following three reasons for his high regard of this literature (pp. 115–16):

1. Italy's economists were original in comparison with their counterparts in other countries; mercantilists paid more attention to monetary problems than to the balance of payments, physiocrats were concerned with the neglected area of the relationship between law and economics, and the industrial school paid more attention to population welfare than to the theory of value as did Smith and his followers.
2. Italy was the birthplace of important schools of economic thought;

Serra systematized mercantilism, Bandini began physiocracy, Genovesi introduced protectionism, Galiani anticipated Smith, and Ortes preceded Malthus.

3. Of all the economic issues considered, the Italian economists Scaruffi, Montanari, Neri, Turbolo, Pagnini, Genovesi and Galiani were able to solve the problem of money only. (It was a rather optimistic statement on the part of Vernadsky.) But the Italians also formulated other economic problems and suggested ways for resolving them: Genovesi, Beccaria, Galiani—labor and value; Genovesi, Bandini, the physiocrats—agriculture; Beccaria—the nature of capital; Broggia, Genovesi—trade; Carli, Genovesi, Verri, the physiocrats, Ortes, Corniani—economic freedom; Galiani, Genovesi, Vasco—the interest rate; Filangieri, Ortes—population and national wealth; Beccaria, Vasco—the development of ownership; Broggia—monopoly; Vasco, Genovesi, Bandini, Verri—guilds, peasantry; Bandini, Filangieri, Ricci—welfare institutions; Genovesi—education; Broggia—taxation.

Vernadsky's contemporary, J. R. McCulloch (1789–1864) (1845, p. 189), had a much lower opinion of Italian economists, writing that,

The truth is that there is incomparably clearer appreciation and analysis of the grand source of wealth in the statement by Locke, in the *Essay on Civil Government*, in illustration of the influence of labour in establishing a right of property...than is to be found in all the writings of all Italian economists from Serra down to those of the present day.

On the other hand, Loria gave a more measured evaluation of economics in his native country. Because of remnants of feudalism and the stunted growth of capitalism in their country, Italians had failed to develop distribution theory. Their concern with poverty had more to do with its effects than its causes. Although they made lasting contributions to the problems of currency, commerce, usury and taxation, they did not work out the most important aspect of modern economics, the theory of value, a conspicuous achievement of their English counterparts (Loria, 1917, p. 465).

However, recent economists, particularly those with first-hand knowledge of Italian economics, have expressed opinions very similar to those of Vernadsky. Pribram (1983, p. 88) summarized his views as follows:

The eighteenth-century Italian economists represented in many respects the most advanced type of mercantilist reasoning. They used the equilibrium concept to correlate the magnitudes included in their pictures of the economy, they examined the fundamental notions underlying their analysis, and they based their proposals of economic policy on utilitarian considerations.

But Schumpeter (1961, p. 162) had the highest regard for Italians. He wrote, "we might say that economics was primarily an Italian science until the last quarter of the eighteenth century." Or,

But the honors of the field of pre-Smithian production should go to the eighteenth-century Italians. In intent, scope, and plan their works were in the tradition that has been illustrated by the examples of Carafa and Justi; they were systems of Political Economy in the sense of welfare economics—the old scholastic Public Good and the specifically utilitarian Happiness meeting in their concept of welfare.... But whereas in zeal for fact-finding and in grasp of practical problems they were not inferior to the Germans, they were superior to most of their Spanish, English, and French contemporaries in analytic power and achievement (Schumpeter, 1961, pp. 176–77).

In conclusion, Vernadsky can be evaluated on two counts: (1) the quality of the book which served as a basis for the preceding discussion and (2) the soundness of his analysis of Italian economics. There is no doubt that the book in question was intended for professional economists, or even for advanced specialists. They were expected to know thoroughly the science of economics and its development. Vernadsky saw his objective as adding his analysis of Italian contributions to this knowledge. As a result, the book is characterized by an extreme terseness of style. There is not one superfluous sentence; but there are several cases, some of them noted in the text, where further elaboration would have contributed to the exposition. Another significant shortcoming of the book is the lack of a comparative approach (except for the conclusion). From reading this work, for example, one would never know that there were important mercantilist economists outside Italy, in England, France, and other countries. Furthermore, the inclusion of the views of Friedrich List, for example, would have made the views of the Italian protectionists clearer. Finally, Vernadsky wrote his work before the advent of modern scientific economics in the last quarter of the past century. His work is concerned with political economy, constantly relating economic theory to the practical needs of national economy. Consequently, the role of government in economic life occupies a prominent place in his work. On the other hand, the problems related to the theory of value, production and distribution which would be of primary interest to modern economists were not explored by Vernadsky in sufficient depth.

As was shown throughout the preceding pages, Vernadsky's evaluation of Italy's economics was similar to that of scholars writing on this subject over the century that has passed since his book was published. The difference between Vernadsky's views and those of his contemporary, McCulloch, were most pronounced. On the other hand, the views of Vernadsky and Schumpeter were quite similar. It is important to emphasize this fact because the latter epitomized the most sophisticated and advanced level of the discipline and

knew more about Italian economics than any other scholar. This similarity proves Vernadsky's profound understanding of the fundamentals of economics and his intuition about its future development, both of which have successfully withstood the test of time. His originality in the approach to the study of the history of economic thought and to the study of the relationship between this discipline and economic history should be noted. It should be also mentioned that Vernadsky made the achievements of Italian economists accessible to readers in Eastern Europe even in the mid-nineteenth century, while these contributions have not been fully explored in the West to this day. Even without his work in other areas of economics, the study of Italian economists alone should earn this Ukrainian scholar a place in the history of economics.

NOTES

1. Vernadsky, 1858. His other book on the history of economics, is a general survey which is discussed in Chapter 6.
2. A copy can be found in George Vernadsky Papers, Bakhmeteff Archive, Columbia University, New York City.
3. An additional reason for selecting these four economists is that at least some of their work has been translated from Italian, a language which I do not read.
4. Especially his magnum opus, *History of Economic Analysis* (1961).
5. Cf. "Preface and Introduction," in Groenwegen and Halevi, 1983. There is apparently only one book on the history of Italian economics, ed. Massimo Finioia, *II Pensiero Economico Italiano, 1850-1950* (Bologna, 1980) which covers the period subsequent to Vernadsky's. For a review of this book, see Louis de Alessi, *Journal of Economic Literature*, June 1982.
6. The pages of Vernadsky's work will subsequently be given in brackets in the text.
7. Compare the similarity of expression in the evaluation of Ferdinando Galiani (to whom Vernadsky pays considerable attention), "Indeed, when Galiani's main assumptions are taken into account...today's economists can add little, except rigor and precision of analysis, to what he showed more than two centuries ago." See Cesarano, 1976, p. 399.
8. Stigler, 1965b, p. 21. Or "Perhaps this amounts only to saying—what is surely true and almost tautological—that the elements of an economic system which economists believe to be basic have been present for a long time." Ibid., p. 23.
9. On the other hand, a recent scholar, on the basis of his case study of Turgot, Beccaria and Smith, emphasized the influence of a common intellectual heritage or scholarly sources on the appearance of the foundations of modern economics in France, Italy, and Great Britain during approximately the same period of time. See Groenwegen, 1983, especially Chapter 4.
10. For the sake of symmetry, it is necessary to mention that some scholars argue that economic thought has had no influence on economic events. Cf. Gerschenkron,

1969.

11. However, Pribram, 1983, extends the independence of economic theory from economic events (p. 593) and dependence on the principles of reasoning (p. 586) to earlier periods.
12. Cf. Spengler, 1968, pp. 162–63; or, Schumpeter, 1961, p. 40, “Only those err without qualification who either see in the development of economic analysis nothing but a reflex of the changing humors of the public mind, or else indulge in the enviable but childish belief that political attitudes are a function of nothing except progressive insights.”
13. Vernadsky gave the following example of a difference between these two branches of economics. Centralization of capital in the hands of an industrialist “is considered by the theory of value—which has as its objective subsequent material production—a positive phenomenon...production with the help of larger capital, owned by one person, is more effective; exactly the opposite is asserted by welfare theory, because it has in mind primarily *people involved in production—workers* and not the *production itself*” (Vernadsky’s italics) (p. 21). Elaboration by Vernadsky of the second half of this proposition would have aided our understanding.
14. The only justification for the state’s desire to accumulate precious metals that Vernadsky could find is to have ready cash in times of war (p. 23).
15. For an enumeration of these statements, see Allen, 1970, pp. 384–85.
16. Allen, 1970, and also his “Rearguard Response” to the arguments by Coats, 1973.
17. This was suggested by Schumpeter (1961, p. 365) even with respect to the price-specie-flow mechanism in the following words: “Automatic Mechanism—the mechanism which, if allowed to work and if conditions are not too much disturbed, may be held to guarantee in the long run an equilibrium relation between the money stock, price levels, incomes, interest rates, et cetera of different nations—was not entirely outside the range of vision of any of the ‘mercantilist’ writers one cares to quote: Serra saw much of it....” Schumpeter refers to Serra in Monroe, 1945, pp. 154 ff. If we include Galiani in the mercantilist school as some scholars have done—even with respect to only some aspects of his writing it can be seen that Allen’s objection does not apply to all Italians in this school. According to a recent writer, “Galiani clearly understood the adjustment mechanism of the balance of payments, both in the case of fixed and in that of flexible exchange rates.... (It) is explained by the peculiar character of the currency used at that time: precious metals were a medium of exchange for both domestic and international transactions. Therefore...excess supply of money in a given country does not proportionally increase the price level, because it is partly spent on foreign goods.” Cesarano, 1976, p. 397.
18. See the translation of Serra’s work, “A Brief Treatise on the Causes Which Can Make Gold and Silver Plentiful in The Kingdom Where There Are No Mines,” in Monroe, 1945, p. 145.
19. For a discussion of this contribution by Serra, see Schumpeter, 1961, pp. 258–59.
20. For example, Davanzati argued that only metallic money has properties measuring value and providing a unit for accounting. Vernadsky suggested that any other commodity could have this property if selected to function as money (p. 28).
21. While “recognizing in theory the logic, possibility, and benefit of free

international trade, protectionists remain adamant...supporters of restrictive measures. Successes in theory and practice did not proceed together for them, each maintains its own direction and arrives at its own conclusions" (p. 47).

22. See excerpts of Verri's writings in Müller, 1820.
23. Schumpeter, 1961, pp. 718, 132, 408, 205, 307, 960, 178.
24. According to McCulloch, 1845, p. 64, "Genovesi's work was one of the best that has been written on the narrow and hollow principles of the mercantile system, and without the author having any clear idea of the real sources of wealth. It contains many interesting statements and ingenious discussions. There is, however, a great want of method in its plan; and the reader will have little difficulty in discovering that Genovesi was a theologian and metaphysician, as well as a publicist."
25. Vernadsky cited an interesting and a farseeing view of Genovesi on the changing relationship between metropolises and colonies. Colonies were conquered by European powers thanks to superior European technology. But colonies benefited from their masters with respect to culture, technology, etc. With time, colonies would overcome the European powers in these respects and would become not only independent, but would even dominate the latter (pp. 56-57, n.). This remark may have been directed by Genovesi against the English and French mercantilists who, unlike the Italians, favored colonial expansion.
26. Vernadsky's interest in Beccaria's treatment of labor was noted by Loria, 1917, p. 464, who spells his name Wernadski and refers to him as a Russian.
27. As does Groenwegen, 1983, p. 46.
28. Various places in Schumpeter, 1961.
29. The first English translation by Peter R. Toscano, 1977.
30. According to Schumpeter, 1961, p. 301, the formulation of demand theory by Galiani was very good, despite the lack of the concept of marginal utility. Vernadsky shared this deficiency with Galiani.
31. Vernadsky drew attention to Galiani's interesting views of the development of nations. In order to attain a high level of social and economic development, various institutional conditions are necessary. But the presence of these institutions would not assure continuous growth of a nation; decline is inevitable. A symptom of approaching decline will be the people's preoccupation with luxuries (p. 98).
32. Schumpeter, 1961, pp. 296, 315; Toscano, 1977, pp. xxxvii-xxxviii; Cesarano, 1976.

Chapter 9

Economic Development of Galician Peasantry in the Writings of Rev. T. Voinarovsky

O eternal God, grant [this nation] in every generation, until the end of time, holy bishops and priests, full of Thy Spirit—shepherds and teachers of Thy commandments who could preserve the truths of Thy holy Revelation unchanged and with love teach and lead this great nation.

Metropolitan Andrei Sheptytsky

Introduction

Reverend Voinarovsky was one of the closest aides of the Metropolitan of Blessed Memory Andrei Sheptytsky of Lviv, the spiritual leader of Greek Catholic Ukrainians in Galicia during most of the first half of this century. He managed the properties of the Metropoly and was an important leader in the economic development of Western Ukraine.

Tyt Ievhen Stolobut de Voinarovsky (Wojnarowskyj) was born into the family of a priest in 1856 in the village of Liatske, Tlumach region of Ivano-Frankivsk (Stanyslaviv) province.¹ His grandfather immigrated to Galicia from Central Ukraine in the eighteenth century. Tyt obtained his

primary education at home and, subsequently, attended the gymnasium in Stanyslaviv. After completing his theological studies in Lviv, he was ordained into the priesthood in 1881. Before his ordination, he married Emilia Sheparovych who died during the first year of their marriage. For a short while, Rev. Voinarovsky was pastor in several villages in the Kolomyia region. He also served briefly as an assistant pastor in St. Iurii's Cathedral in Lviv. For a somewhat longer time he worked as a parish priest in Piadnyky and Toporivtsi, near Kolomyia, and Balyntsi in the Horodenka region. In 1910, Metropolitan Andrei asked Rev. Voinarovsky to be the manager of the Metropoly's extensive estates. Rev. Voinarovsky lived in Lviv to the end of his life, with the exception of three years spent in Vienna during World War I. In recognition of his service to the church, Rev. Voinarovsky became a Mitred Canon, the highest distinction awarded to married priests by the Catholic Church. He died in Lviv in 1938.

Voinarovsky was distinguished for his extraordinary energy, as evidenced by his intensive and multifaceted activities. In addition to his duties as priest, he was involved in political affairs, not because he particularly liked this kind of activity, but out of an obligation to his people. While serving in Piadyky, he was elected to the District Council in Kolomyia. Between 1907 and 1910 he was elected to the parliament in Vienna (from the national-democratic camp). There was hardly a Ukrainian organization in which he did not take an active part. According to Voinarovsky himself, at one time he was one of the leaders of eighteen different organizations; including *Farmer (Silskyi Hospodar)*, an organization devoted to the economic development of the Galician peasantry (whose chairman he was for many years). Along with Metropolitan Sheptytsky, Voinarovsky made an effort, albeit unsuccessful, to encourage the migration of Galician peasants to Central Ukraine then under Russian domination, instead of overseas. The purpose of this plan was to disseminate national consciousness among the local Ukrainians. Using his numerous connections, Voinarovsky tried to establish a *modus vivendi* between Ukrainians and Poles after the end of the Ukrainian-Polish war of 1918–20. Also, in the early 1920s he led the negotiations with the Polish government over the opening of a Ukrainian university in Lviv.

In addition to all these activities, Voinarovsky found time to study Ukrainian history, particularly Ukrainian-Polish economic relations. This resulted in the publication of several noteworthy contributions.² Finally, Voinarovsky effectively managed the assets of the Galician Metropoly for many years. The earnings from these estates provided the financial base not only for Metropolitan Sheptytsky's church-related activities, but also for his well known generosity in support of charitable, cultural and national causes. In this capacity, Voinarovsky proved his exceptional administrative and entrepreneurial talents. Had he worked for himself, there is no doubt that he would have been a very successful businessman.

The center of Voinarovsky's attention was, however, focused on the economic conditions of Ukrainian peasants in Galicia, who constituted the vast majority of this province's population at that time. Voinarovsky devoted most of his efforts to the cause of the economic development of the peasantry. He believed that the most promising way of achieving this goal was to provide the peasants with additional land. Accordingly, he wrote:

While I was still in Piadyky, the idea of the necessity of increasing the land in possession by the peasants through parcelling [dividing up the large estates] became apparent to me. I saw how the land-poor peasants, despite their efforts, cannot better themselves economically; instead they become objects of exploitation. I also noticed that when a peasant has enough land to provide security for himself and his family, he becomes conscientious, hardworking, thrifty, sober, accessible to culture, and, most importantly, remains religious (1961, p. 21).

As can be seen, Voinarovsky felt that land ownership by the peasants was important not only out of economic, but also out of social and even religious considerations. The relationship between economic welfare, based on adequate land ownership by the peasantry, and the political aspirations of the nation was of no lesser importance for Voinarovsky. Discussing the political status of Ukrainians within the Austrian constitutional monarchy, he wrote: "Winning political rights without concurrently achieving economic selfreliance cannot be sustained, because in a constitutional country the converse applies: it is the economic strength of the people that assures them rights and political importance" (1910, p. 34). The views of Voinarovsky on the social and political meaning of land ownership were neither unusual nor outdated. There were many students of economic development in various countries who held similar convictions. For example, the well known British historian, Sir Lewis Namier (who, incidentally, spent his youth in Galicia), shared this view at a time when agriculture, as an economic sector, had already lost its importance in the economies of the developed nations of the West (cf. Hunczak, 1977, pp. 200–201).

There is no doubt that Voinarovsky's activities and publications merit a separate economic-historical study. Unfortunately, such a work has not yet appeared. The purpose of this article is limited: to analyze the views of Voinarovsky on the importance of land ownership for the development of Ukrainian peasantry in Galicia in the period shortly before World War I.

Land Ownership and Agricultural Development

A brief survey of the socio-economic and ethnic relations in Galicia during the period of Voinarovsky's activities enhances our understanding of his views on the economic development of Ukrainian peasants. The economic conditions during that time can be explained with the help of the following

stylized model. The entire economy was divided into two sectors. One was the urban sector which embraced commerce, the trades, and rudimentary manufacturing. This sector primarily employed Jews, Poles and Germans. Services that were almost entirely related to government activities and which were predominantly in the hands of Germans and Poles should be included in this section. There were very few Ukrainians employed in the urban economy.

The other sector was agriculture which, obviously, dominated in the countryside. It was composed of two parts. The first part included a relatively small number of landowners, who were mostly Polish, but in some rare cases were also Germans and Armenians. The landowners usually presided over large estates. The other part consisted of a relatively large number of peasants who owned small tracts of land. These were generally Ukrainians, who had only recently been emancipated from serfdom (1848).

Two characteristics of the conditions during this period deserve attention. First, out of the entire rural population, only the Polish landlords had significant ties with the towns; they sold their agricultural products there and bought manufactured goods. The peasants maintained negligible relations with the towns; they just sold enough of their products to obtain cash to cover purchases of such necessities as salt and lamp oil and to enable them to pay taxes. Secondly, of all the population groups the Polish landlords had the highest standard of living, often exceeding their financial resources and causing them to incur sizable debts. The living standard of the urban population was more or less comparable to that of West Europe's urban populations. The vast majority of peasants lived at subsistence level. The poverty forced many of them to leave their native land and to seek a better life overseas.

Voinarovsky's objective was not to promote the economic development of the entire Galician population; rather, he was interested primarily in improving the lot of the Ukrainian peasantry. The well-being of the few Ukrainians who were employed outside the agriculture sector did not interest him much. The economic conditions of the non-Ukrainian population were certainly outside his purview. Under the existing circumstances, it was difficult to envision that the peasants' welfare could be improved by finding employment opportunities for them in the urban centers. It is true that their productivity in the towns would most likely have been higher than on farms where they were frequently underemployed. But urban employment generally required at least four years of primary education whereas the peasants were usually illiterate. Furthermore, it was necessary to know the Polish language in the towns, a language unfamiliar to most of the peasantry. Finally, there was a hiring discrimination against Ukrainians in all but unskilled jobs. Therefore, increasing the amount of land in the peasants' possession was the only solution to the problem of rural poverty. In addition, Voinarovsky liked to emphasize that the increased amount of land should not provide the peasant with income in the form of land rent (absolute), but should create employment

opportunities for him. The source of a peasant's income should not be the land ownership, but rather his work on it (e.g., 1910, p. 37).

In advocating the increase in land holdings for the peasantry, Voinarovsky did not mean leasing land from the large landowners. Rather land reform for him entailed full ownership of additional land by peasants, including full control over the fruits of their labor. The validity of Voinarovsky's conviction has been borne out in the experience of many countries. When the peasant does not have complete ownership of the land, he lacks the motivation to improve it. As a result, the quality of the land progressively declines. According to an eighteenth century writer:³ "Give a man the secure possession of a bleak rock, and he will turn it into a garden; give him a nine year lease of a garden and he will convert it into a desert."

Rev. Voinarovsky did not possess formal training in economics and was probably not familiar with the literature on economic theory. He did, however, read various empirical works about the economic problems of his day, most of which pertained to the conditions of Austro-Hungary, and often made references to them in his own writings. It is interesting to compare Voinarovsky's views on the importance of land ownership in the economic development of the Ukrainian peasantry with the postulates of economic theory, particularly in light of recent advances in the theory of economic development.⁴

Economic theory begins with the premise that in a free market economy, characterized by a large number of buyers and sellers, the supply of individual producers, including agricultural producers, will be determined by the demand of the consumers. Because of competition, every producer will be forced to produce a given output at the lowest possible cost per unit of output. The lowest cost will be obtained by using the optimal combination of the factors of production at given factor prices and at a given state of technology. Obviously, these theoretical assumptions did not apply to the economic environment of Galician peasants during Voinarovsky's lifetime. The market had a minimal effect on the product mix of peasants' output; rather, it was determined by the biological needs of his family. The proportion of land to labor used on a peasant homestead was not the result of competitive forces, but was determined by historical developments and existing institutions. As will be discussed below, the Ukrainian peasants lost a significant portion of their original land to the Polish aristocracy and the Roman Catholic Church. Also, on his death-bed the peasant would divide his land among his children (the absence of primogeniture). As a result, the amount of land per peasant household was small in relationship to the labor available and declined further with each intergenerational transfer.

Voinarovsky correctly argued that the Galician peasant could increase his land holding only at the expense of the large landowners. The resulting benefits of such a reform for the peasantry can be outlined as follows: (1) By

increasing the amount of land per household not only would total production increase, but production per worker would be greater. Specialization of output and of factors of production within peasant households would follow the increase in land. (2) The increased output on a larger amount of land would satisfy the needs of the peasant family and the surplus could then be sold on the market. The links with the market would lead the peasant to view land as a source of profits. In order to maximize his profits, the peasant would specialize in the cultivation of those marketed crops in which his productive advantages were relatively high. (3) The sale of agricultural products in the market would then provide the source of funds to enable the peasants to make investments in farm equipment and fertilizers.

It is sometimes argued that land reform that takes the form of dividing up large estates among a large number of small peasant households is undertaken primarily out of socio-political considerations. The economic rationale is then of secondary importance. However, if the parcelling of the land is brought about voluntarily, it must be beneficial to both large landlords and peasants. Otherwise, the transaction would not be concluded. Some economists argue that despite the benefits to both parties, the reform would be detrimental to the entire economy in the long run, because the advantages of large-scale production would be lost (Gillis et al., 1983, p. 487). Recent research however shows that this negative outcome would not necessarily occur for the following reasons: frequently the ratio of land to labor is too high on large estates and, consequently, the cost per unit of output is not minimized. The land may be cultivated more intensively on smaller farms, because there are relatively more workers. Smaller farms also produce higher priced agricultural products relative to the large landholdings where the raising of livestock is often emphasized. Finally, farming frequently requires on-the-spot decisions. Obviously, the owner of a smaller farm is more familiar with the options available to him and his decisions will be made more quickly and will be more effective than in the case of a large owner, who, in addition, is often an absentee owner.

The question arises of how to reconcile a development strategy emphasizing the agricultural sector with the premises of traditional development theory in which industrialization is the most promising strategy for the modernization of backward countries. Before discussing the preference in some instances for the former alternative, we will consider briefly the arguments in favor of industrialization. The following benefits of this course are usually given: labor productivity is usually higher and grows at a faster rate in the manufacturing sector than in the agricultural sector; the development of manufacturing leads to a decline in the costs of production in other sectors of the economy; the costs of production in manufacturing tend to decline over time, while in agriculture they tend to remain constant; technological progress usually takes place in industry; industrialization leads to modernization and to

the rationalization of all aspects of human life, while agriculture is characterized by circular reasoning and a conservative outlook.

Despite these arguments in favor of industrialization, there is the recognition in modern development theory that in some cases emphasis on agriculture can be a successful strategy for economic growth in less developed countries. In addition to the increase in agricultural output, the following outcomes of this strategy can be expected. In underdeveloped countries, with a predominantly agricultural population, the development of agriculture automatically raises the standard of living of most of the population. This is an important consideration in view of the fact that industrial development may in some cases produce disappointing results: the improvement in the standard of living may come about less quickly than initially anticipated and may often be limited to the urban population. The increase in agricultural productivity may stimulate direct investment in this sector (irrigation, soil improvement, etc.). Also output in small-scale industries and the crafts will grow, thanks to the more intensive utilization of the underemployed rural labor force. An additional benefit of this process is that investment in the infrastructure to accommodate new workers, a requirement of industrial development in the cities, is usually unnecessary for agricultural development.

Also, a more efficient agricultural sector and the development of complementary sectors lead to a less unequal income distribution, always a desirable social objective. The increase in the income of peasant households becomes a source of savings for them which can also be used for investment in other sectors of the economy. The tax base is also enlarged enabling the government to stimulate economic growth with the appropriate monetary and fiscal policies. Finally, higher incomes for the peasants lead to an increase in their demand for products of other economic sectors thus facilitating a balanced growth for the entire economy. Obviously, an economy specializing in agricultural production must maintain economic relations with industrialized countries.

In general, economic development based on the growth of the agricultural sector rather than on industrial growth suited Galician conditions, particularly the conditions of the Ukrainian peasantry. Voinarovsky understood these advantages, although perhaps only instinctively. In addition, this alternative was preferable for noneconomic reasons; the development of the agricultural sector protected the Ukrainian peasants from denationalization. Formally, this choice can be formulated as a maximization problem (income per capita of the rural population with a constraint preserving national identity).

Land Ownership in Galicia in Historical Perspective

As mentioned above, Rev. Voinarovsky believed that securing land for agricultural use was a precondition for the economic development of Galician

peasants. Consequently, he carefully researched the historical processes which made the peasantry land poor. Following the annexation of Galicia by Poland in the 14th century the Polish gentry began to take over the lands of the Ukrainian nobility using force and deceit. Also the lands of the peasants who were free men were the targets of the greed of the Polish nobility. The Galician peasantry was dealt a final blow when King Zygmunt instituted serfdom in 1543. The occupying forces were not appeased by the appropriation of substantial amounts of land; they also conducted an assault on Galician cities. In a short time, the Ukrainian urban dwellers were not only squeezed out of the towns economically, but also physically. They were replaced by Jews, Poles and Germans.⁵

Voinarovsky singled out the shameful behavior of the Polish Roman Catholic clergy. The Polish priests, no less cunningly than the Polish nobility, managed to take over the lands of some Ukrainian parishes (Voinarovsky, 1910, p. 15; 1916, pp. 45-46, 48).⁶ It appears that the Greek Catholic Basilian monasteries bore the brunt of this assault. Up to this period, the order supported the development of Ukrainian education and culture. Having lost a significant portion of its economic base, its estates, to the Polish church, the Basilian Fathers could no longer continue their activities on the same scale as before. Obviously, having taken possession of the former Ukrainian lands and benefiting from the revenues accruing from these lands, the Polish nobility and clergy had no interest in promoting Ukrainian spiritual life. According to Voinarovsky (1910, p. 17), by plundering the Basilian order's wealth, the Poles did more harm to the Ukrainian nation than did, for example, disenfranchisement of the Ukrainian nobility during the 16th and 17th centuries.

The annexation of Galicia by the Austrian monarchy in 1772 brought with it hopes for bettering the lot of the Ukrainian people. These hopes were realized to a certain degree during the reign of Maria Theresa and, to an even greater extent, after Joseph II's ascendancy to the throne. In addition to various reforms which, in general, improved the situation of Ukrainians, this monarch forbade the expansion of demesne land at the expense of rustical land. The situation changed for the worse during the reign of Joseph's successors, particularly during the reign of Franz I. This emperor believed that the consolidation of Austria's power over Galicia could be brought about with the strong support of the Polish aristocracy and, therefore, he gladly accommodated their demands. The German administrators were impressed by the aristocratic life style of the Polish landowners. Furthermore, since they usually did not know the native language, they gratefully accepted Polish help in dealing with the Ukrainian population.⁷ The Polish landlords unabashedly exploited their position as intermediaries. The Polish clergy did not abstain from such conduct; they played adeptly on the fears of the Austrian government with regard to the Russian threat, warning the Austrians of the

supposed pro-Russian sympathies of the Ukrainian population. A consequence of the friendly relations between the Poles and the Austrian government was that when legal conflicts arose between the Ukrainians and the Poles, the Austrian officials decided in favor of the Poles.

In the beginning of Austrian rule of Galicia, the efforts of the Polish aristocracy and clergy were concentrated on the appropriation of peasant land. There is no doubt that these efforts were successful.⁸ Voinarovsky gives various estimates of land losses by Ukrainian peasants during this period of time. For example, according to the estimates by a well known economist of that time, Dr. M. Stöger, Galician peasants (including those in Western Galicia, who were primarily ethnically Polish) lost 22.6 percent of their land (arable land, grazing land, meadows and forests) between 1789 and 1834 (Voinarovsky, 1921, pp. 118-19). In terms of agricultural output, the proportion coming from demesnal land grew from 30.3 percent to 38.5 percent between 1789 and 1836, while the share of rustical land declined from 69.7 to 61.5 percent (Voinarovsky, 1921, p. 101). However, after 1830, transfers of land ownership from peasants to landlords were infrequent.

Voinarovsky carefully analyzed the means employed by the Polish landlords to increase their wealth at the expense of Ukrainian peasants. The landlords physically abused the peasants to such an extent that the peasants were sometimes forced to flee to other parts of Austria or, more often, to other countries. The aristocracy would then appropriate for itself the abandoned lands. During years of poor harvest as, for example, in the tragic year of 1863, the peasants would incur debts to the landlords in order to save themselves from starvation. Afterward, without the resources to pay back their debts, they would lose their lands to the landlords. Communal lands, which had freely been used by the peasants for ages, were gradually absorbed into the landlords' estates. The Ukrainian peasants, further, lost a significant portion of their lands as a result of the tax reforms of 1789. Measurements of the land, required by the reform, were made by the peasants themselves, who deliberately underreported their landholdings with the hope of easing their tax obligations. During Franz I's reign, the Polish gentry managed to appropriate for itself the unreported pieces of land with the help of Austrian officials. To increase the value of their estates, the landlords continually increased the corvée obligations of the peasants. For example, at that time, a new rule was introduced: following the division of a peasant farm among the inheritors, the owner of each new farm was obligated to work the same amount of time for the landlord as the owner of the farm before division. On top of all of the above, non-Ukrainian, primarily Jewish, middlemen between the towns and the cities, and between the villages and the estates mercilessly aided the Polish landlords in exploiting the Ukrainian peasantry.⁹

The peasants experienced large losses after the law dealing with the lands, which until then had been communal, was put into effect in 1853.

Accordingly, they lost their centuries-old access to communal grazing lands, meadows, and forests which were entirely incorporated into the landlords' estates. The peasants were compensated, inadequately, with a certain amount of arable land. Also, following the emancipation, the peasants succeeded in purchasing some land from the nobility. As a result, the arable land in the peasants' ownership increased somewhat in the mid-1850s. During this period of time, however, a substantial number of Polish peasants migrated from Western Galicia to Eastern Galicia to work on land acquired from large estates. Having taken all these factors into account, Voinarovsky concluded that in the final analysis the Ukrainian peasants were harmed. They lost their access to communal lands and were not fully compensated. According to him, "The elimination of access to the communal lands represents one of the main stages in the economic destruction of the Ukrainian people to be followed by cultural decline" (1921, p. 146).

As a consequence of the above mentioned processes, peasant homesteads had relatively little land. According to the 1902 census, the median acreage of land per household (including arable land, grazing lands, meadows and woodlands) was 2.62 hectares, somewhat less than the average for the entire Austrian Empire which was 2.68 hectares.¹⁰ But, the agricultural population accounted for 74.2 percent of the entire population in Galicia, as compared with 50.1 percent in Austria as a whole. In addition, the average grain yield was lower in Galicia than in Austria, 10.8 and 13.1 centners per hectare, respectively, for 1904 to 1913. Galician production of potatoes, however, exceeded the Empire's average, 111.5 and 102.7 centners, respectively, presumably a result of the more intensive cultivation of the land. It is not surprising, then, that the standard of living in Galicia was very low, a phenomenon referred to in literature as "Galician misery."

As noted above, Voinarovsky believed that the improvement of the standard of living of the Ukrainian peasantry could only be achieved by the extension of their land holdings through the division of the large estates. At the time, the large landowners were gladly agreeing to the parcelling of their estates for two reasons. First, they were usually heavily in debt. At the beginning of the 20th century, this indebtedness equalled that of the large landowners in all the rest of the Austrian provinces. Secondly, the price of land at that time was relatively high. This was a result of the following factors (Voinarovsky, 1910, p. 36): increased demand, principally from overseas emigrants who preferred to invest their savings in properties in their native land; land parcelling was accomplished with the help of a state parcelling bank, and the peasants believed that such a bank would not permit them to be cheated; active speculation in land was taking place at that time; ownership of land not only had economic significance, but also political and social significance. But perhaps the most important reason for the high demand for land was the land hunger of the Ukrainian peasants and their desire to obtain

it at any cost. Voinarovsky (1910, p. 34) notes, "In order to regain their former lands, our peasants direct all their energies into buying more land through the parcelling of large estates" and afterward they conscientiously pay off their mortgages.

Under these circumstances, Voinarovsky was successful in his campaign to parcel estate lands. In his memoirs he names the following villages where thanks to his activities parcelling took place: Piadyky, Kamianky Mali, Dobrovidka, Gody, Toporivtsi, Balyntsi, Profanivka, Buchachky, Olesha, Volchkiivtsi, Sknyliv, Mylovannia, Korshiv, Kryvobrid Semakovetskyi, Sopiv, Horyhliady, and Poberezhzhia. Other villages could be added to this list. According to one estimate, he parcelled about 22,400 hectares of land (Kubijovyc, 1955, p. 302). To facilitate these transactions, he worked closely with the Austrian State Bank and helped to organize the Polish Mortgage Bank (Voinarovsky, 1961, p. 32). He also planned to establish a Ukrainian Mortgage Bank. He was, however, unable to realize this goal, because of insufficient support from the Ukrainian political and business leaders (Voinarovsky, 1961, pp. 43-48).¹¹

Conclusions

On the basis of the preceding discussion, the following conclusions about Rev. Voinarovsky's views on the economic development of Galician peasants can be drawn. Because of the low ratio of land to labor on peasant homesteads, the best course of action would have been to employ the surplus labor (those without whom the agricultural output would not decline) in manufacturing. The national product of the entire country would have increased as a result of the employment of those who had been unemployed or underemployed and, also, as a result of the higher productivity of labor in manufacturing than in agriculture. Such a variant would have required an economic policy geared toward investing in industry. Since manufacturing establishments are located in towns, the precondition to the success of this policy would have been the relocation of a part of the rural population to urban areas. Assuming that such a relocation could have been accomplished in the case of Galicia, the threat of denationalization of the new Ukrainian urban dwellers would have arisen. Voinarovsky could not accept this alternative. For him, the preservation of the substance of his nation, the Ukrainian peasantry, was more important than the most promising prospects for economic development. The only economic approach that ensured the perpetuation of the Ukrainian ethnos was the economic development of the Ukrainian peasantry achieved through the increase of their land holdings.

Was this approach realistic? We think so, but with the following two reservations: it was incomplete and effective only in the short run. The strategy was incomplete because it overlooked the need for market relations in

the process of economic development. Assuming that a peasant had been able to increase his land holdings through parcelling, the increased production would not only satisfy the biological needs of his family but also provide a surplus which could be sold on the market. The intensification of relations between the peasantry and the towns is crucial in this process. Specialists on the economic history of Austro-Hungary assert that the success of land reform at that time depended on two factors: increasing the amount of land owned by peasants and integrating the peasants into the market system (Berend and Ranki, 1974, p. 28). Voinarovsky focused on the first aspect in his work. He did not write much about the second.

Voinarovsky's strategy failed to come to grips with the problem arising in the long run, namely population growth. Two alternatives existed for maintaining the appropriate land to labor ratio. First, population growth could be controlled or limited artificially (this occurred in France at that time). Secondly, primogeniture could be introduced, in which case the siblings who did not inherit the farm would settle in towns, having been assured jobs in sectors of economy other than agriculture. Neither alternative was acceptable to Rev. Voinarovsky. Although he does not discuss this problem explicitly, one can assume that the artificial population control would have collided with his religious beliefs. Of course, the second alternative was in conflict with his Ukrainian patriotism.

The emphasis on the agricultural sector in the economic development of Galician Ukrainians by Voinarovsky was also unrealistic because it ignored the economic processes which were taking place in the world. This was a time of the turbulent rise of industrialization and urbanization, when currents which were still very weak in Galicia dominated the economic life of other provinces of Austria and the developed Western countries. How was it possible to plan the economic future of Galician Ukrainians without taking these changes into account? Without exaggerating, Voinarovsky was afraid of these changes because they brought about the destruction of traditional farming and traditional Ukrainian life based on it. He wrote about these changes: "today we are in...the stage in which the country, to which we belong, is definitely entering the stage of a manufacturing-exporting country on the ruins of agriculture" (1910, p. 27).¹² The goal of Voinarovsky's work was precisely the preservation of agriculture and the national identity of the peasants. He was unable to formulate an approach to land reform which, according to two specialists in the theory of economic development (Herrick and Kindleberger, 1983, p. 333), would "discover an institutional arrangement that would retain sufficient flexibility to allow adaptation to technological change and variation in the relative prices of alternative agricultural outputs, without sacrificing the political ends of the process."

Rev. Voinarovsky's attitude toward the problem of economic development arose not solely from his nationalist political convictions, but also because of

his vocation as a Catholic priest. According to Max Weber (1974, pp. 370–71), the Catholic Church was always suspicious of the capitalist market because it is dominated by impersonal criteria (price, profit, competition, etc.). Weber argued that personal relationships between the parties in economic transactions (justice, tolerance, love, etc.) which were characteristic of pre-capitalist formations, were easier for the Catholic Church to accept. One suspects that Voinarovsky, in trying to preserve traditional agriculture, also wanted to maintain these disappearing forms of personal relationships in economic life.

One can also assume that Rev. Voinarovsky's vantage point as a Catholic priest was reflected in his paternalistic attitude toward Galician peasants. This impression is conveyed in Voinarovsky's appeal to the educated Ukrainian classes to help the peasantry. He warned the intelligentsia, "that if it [the intelligentsia] were to abandon the peasantry to its own fate during such a time, this would amount to a betrayal of its people" (1910, p. 46). At the same time, he assured the intelligentsia of the success of such aid because

[W]hen the peasant realizes that someone is concerned about him and true to his word, he will follow this person without reservations into fire and water. Therefore, whoever wants to gain the trust of the peasants and work among them has to have tact, patience, and truly good intentions for them" (Voinarovsky, 1961, p. 42).

At that time, clergymen still represented the bulk of the Ukrainian intelligentsia in Galicia. This appeal by Voinarovsky was a reflection of their traditional role as shepherds of their flock.

Such an admonition of the Ukrainian intelligentsia about their duties did not in any way imply that Voinarovsky lacked trust in the peasants' capabilities, particularly the ability to make rational decisions with respect to their economic life. Rather, the appeal was an example of Voinarovsky's understanding of the role of the government and social institutions in economic life. By creating the appropriate conditions or framework, both government and social institutions play a significant part in economic life. Historically, neither the government nor the social institutions were sympathetic to Galician peasantry. Suffice it to mention that if there was not outright hostility then there was indifference on the part of the Austrian government. Also to be considered were the exploitative role of the Polish landlords and the cities' lack of consideration for the peasants. In order to alter this hostile environment or at least to counteract it, the Ukrainian peasant needed to develop his own educational system, his own organizations, particularly cooperatives, and political influence. He could accomplish these things with the help and guidance of the Ukrainian intelligentsia. A more favorable government and institutional environment would enable the peasant to make more effective decisions in economic life. In making the appeal to the intelligentsia, Rev.

Voinarovsky had in mind the creation of such an environment in the intermediate future (1910, pp. 56–59).

In conclusion, one must have serious reservations about Rev. Voinarovsky's understanding of the problems relating to the economic development of the Galician peasantry in the long term, particularly in light of the inevitable rise of the market economy. His concern, however, for the economic conditions of the peasantry and his work on behalf of the peasants in the short term, will go down in history as an example of a noble sense of responsibility and duty toward one's people on the part of a member of the Ukrainian intelligentsia, in particular a priest.

NOTES

1. See Voinarovsky, 1961.
2. In addition to Voinarovsky, 1961, the following works of his are available in the West: Voinarovsky, 1910; 1911; 1916; and 1921.
3. Arthur Young as quoted in Herrick and Kindleberger, 1983, p. 331.
4. Herrick and Kindleberger, 1983; Todaro, 1981, Gillis et. al., 1983.
5. These processes are thoroughly described in Voinarovsky, 1916, pp. 35–40.
6. The actions of the Roman Catholic clergy were not limited to economic exploitation. The Polish priests succeeded in destroying the Ukrainian school system and in converting a substantial number of Ukrainians from Greek Catholicism to Roman Catholicism. According to Voinarovsky's (1921, p. 238) calculations, between the years 1801 and 1851 alone, 210,500 Greek-Catholics converted to Roman Catholicism; a change equivalent to changing one's nationality from Ukrainian to Polish. Incidentally, two leading Soviet demographers, while citing these estimates by Voinarovsky, not only gave the wrong page number of his work (20), but also referred to him as a Polish researcher. See Bruk and Kabuzan, 1981, pp. 26–27.
7. The 1902 census explicitly shows the non-Ukrainian nationality of the large landowners. Among forty-seven owners of estates of at least 5,000 hectares in Galicia, only Natalia and Iurii Tyshkevych belonged to a family which maintained ties with the Ukrainian people throughout history. See Sandgruber, 1978, pp. 238–39.
8. Peasants were losing their land to large landowners at that time also in other provinces of Austria (Berend and Ranki, 1974, p. 34).
9. This role of intermediary by persons of a different ethnic background than that of the native population is not unique to Galicia, and is often exaggerated (Gillis et. al., 1983, p. 504).
10. These and the succeeding data are from Sandgrubber, 1978, pp. 230, 222, 177, 180.
11. Of the contemporary leaders of Galician Ukrainians, Voinarovsky speaks most

sympathetically of a lawyer, Ievhen Olesnytsky, 1860–1917, with whom he usually shared views on current problems. The economic views of Olesnytsky, are discussed from the Soviet viewpoint, in Zlupko, 1969, pp. 74–79.

12. The effect of liberalization of foreign trade, government measures favoring industrialization, and the effect of these policies on economic and social conditions of the peasantry are discussed in Voinarovsky, 1911. This is the only work by Voinarovsky which is of a general nature and in which he does not explicitly discuss the problems related to Ukrainian peasants in Galicia.

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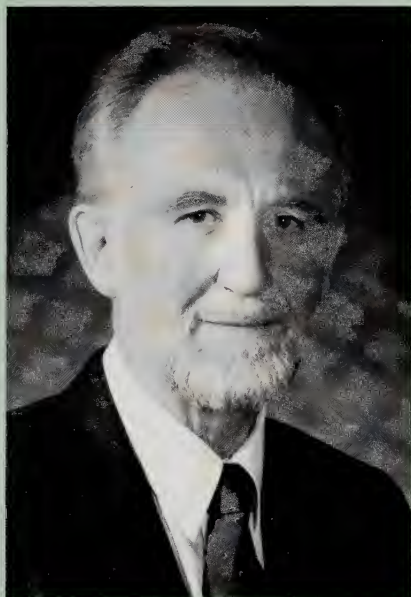
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