

## Ukraine's Agriculture, 1990-1996 : An Incomplete Transition

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### Résumé

L'indépendance de l'Ukraine (1991) entraîna aussi l'abandon de la planification centralisée de l'agriculture. Avec la restructuration partielle des fermes collectives et des fermes d'Etat, la libéralisation du marché et d'autres tentatives de réformes, on assista à un déclin de la production agricole et à une chute du PIB (officiel). Toutefois, la production de nourriture ne baissa pas trop grâce à la production de subsistance sur de petites parcelles. Les agriculteurs vivent en grande partie sans argent. Ils opèrent généralement en économie parallèle et dépendent du troc. La plupart des grandes entreprises agricoles travaillent à perte et dépendent de subsides qui grèvent un peu plus l'économie. L'échec de la privatisation réelle des terres et de la poursuite d'autres réformes a ainsi maintenu l'agriculture à un niveau de performance très bas.

### Summary

As Ukraine gained independence (1991), it took measures to abandon the centralized planning of agriculture. But with the partial restructuring of state and collective farms, freeing of some market forces and other tentative steps in the direction of reform, there came decline in farm production and a drop in its share in the (official) GDP. Food output did not decline as much in part because of subsistence production on small plots. Farmers function largely without money. They operate mostly in the shadow economy and depend on barter. Most large agricultural enterprises operate at a loss and depend on subsidies which harm the economy. The failure to effectively privatize land and proceed with other reforms has kept agricultural performance in the low level.

Mots-clés : agriculture, Ukraine, transition postcommuniste

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### I. HISTORICAL BACKGROUND

Ukraine was given prominence in Soviet development of agriculture. It was a rich, resource-endowed land; the «breadbasket of Europe» in pre-revolutionary times supplying grains to many countries. Its very assets provoked draconian measures in the 1930's imposed to restructure the sector. Ukraine by the eve of World War II had been transformed into a land of vast collective farms (kolkhoz) and state farms (sovkhoz), serviced by centralized tractor stations and other support entities. Improvements to the infrastructure (e.g., electrification, storage facilities) all were designed for large-scale units. The territories acquired by Ukraine during and after World War II were subjected to the same regime.

Production was organized and run under centralized planning from Moscow. This system persisted virtually unchanged for half a century (Hunter and Szyrmer 1992, Gregory and Stuart 1997).

In 1990, agriculture accounted for a quarter of Ukraine's GDP (gross domestic product). As in other parts of the USSR, agriculture had over the preceding decades come to rely increasingly on subsidies to sustain production. Costly projects to increase productivity failed to stem its steady decline. Similarly, sequences of administrative, managerial and organizational quasi-reform initiatives led to little improvement in the sector. With the collapse of the USSR and the almost concurrent formation of Ukraine as an independent state, the centralized Soviet

administered economy came to an end. Gosplan (the institution of central planning) ceased to exist, as did CMEA (Council for Mutual Economic Assistance), with its market and supply system organized to serve the economy of the US SR. Within two years, of independence, Ukraine's agriculture underwent major change. Collective farms were reorganized if not formally privatized. Direct price control on many agricultural commodities and on inputs was discontinued. Agricultural enterprises were at least partly left to manage their own affairs. Yet, in each case these reforms were partial both in design as well as in implementation. Further, to date, none has as yet been fully carried out even within their restricted formulation. It is one of our conclusions that the partial nature of these reforms has led to the dismal state of farming in Ukraine.

## H. OUTPUT IN AGRICULTURE

Agriculture, along with the energy sector, is often singled out as «the worst» sector of the Ukrainian economy. As in other countries of the region, rural areas have been suffering through a painful (social and economic) depression. The existing statistical data do not provide any definitive evidence whether or not rural decline is greater than urban. Many experts argue it is. The quality and reliability of data are low. Available data usually cover the official economy only. Different sources provide different numbers.

According to data presented in Table 1, between 1990 and 1996, total GDP declined by about 60 percent while agricultural output by 40-75 percent. Before 1990, half of

**Table 1 : GDP annual growth rates and the share of agriculture in total GDP**

Source	1991	1992	1993	1994	1995	1996	96 to 90 (%)
<b>GDP, total (%)</b>							
1,3,5	-8.7	-9.9	-14.2	-22.9	-12.3	-10.0	42.9
2	-12.0	-16.8	-14.2	-23.0	-11.8	-10.0	38.4
4	-8.4	-9.7	-14.2	-23.5	-11.8	-10.0	43.1
<b>GDP, agriculture (%)</b>							
1	-17.4	-10.0	+5.6	-10.0	-4.6	-10.3	60.5
2	•	-8.3	+1.5	-16.5	-4.0	-14.6	•
3	-18.8	-10.3	+6.8	-24.7	-3.6 <sup>1</sup>	-9.5 <sup>1</sup>	51.1
4	-8.9	-22.9	-11.3	-48.2	-17.9	-9.8	23.9
5	-13.2	-8.3	+1.5	-16.5	-3.6	-9.5	58.9
<b>GDP, ratio of agriculture to total, current prices (%)</b>							
1	21.1	17.3	21.3	19.0	20.0	•	
3	22.6	15.2	17.0	14.6	13.8	11.8	

Note: <sup>1</sup> = Gross output

Sources: 1 = Rotsi 1997, *Ukrayina y Tsyfrakh* 1997 ; 2 = Soros... 1997, 1 ; 3 = IMF materials, 1996 and 1997 ; 4 = World Bank unpublished data, 1997 ; 5 = Administration... June 1997

the Soviet economy was believed to work directly or indirectly for the national defense. The heavy industry sector (metals, machinery, transportation means, missiles, fertilizers, etc.) was especially strong in Ukraine. It consumed large amounts of energy most of which was imported from Russia. In the early 1990s the military sector suffered major cuts. The whole industry scaled down significantly.

The output of agriculture shrank much less than industry — perhaps no more than 10- 20 percent. There are many reasons why the decline of agriculture was much lower. The elasticity of demand for food is low. According to the so-called Engel's law, when household incomes

decline the share of food expenditure increases. This is exactly what has happened in Ukraine. The apparent large decline of agricultural output reflects a shift toward «natural» and «shadow» economies that are not accounted for by official statistics and difficult to assess by indirect methods. Paradoxically, although (1) market food prices kept changing at a rate similar to that of other prices<sup>1</sup> (2) agriculture experienced less decline than industry, the share of agriculture in GDP, instead of increasing, declined remarkably. It fell from about 24 percent in 1990 to 12 percent in 1996. Given the 60 percent fall of GDP, the 1996 output in agriculture would have to be five times lower than that in 1990. More solid data work is necessary before reliable estimates can be established.

### III. RETAIL SALES OF FOOD

As shown in Table 2, between 1990 and 1996, total consumption per capita decreased by a few percentage points for potatoes, one seventh for bread, one third for sugar, and almost one half for meat. At the same time, officially registered retail purchases of food declined dramatically: twelve times for sugar, ten times for potatoes, seven times for meat, and three times for bread. Such declines must be explained not by a decrease in consumption but rather by a shift away from the official economy. The main reason for this shift was rural poverty, low savings, low income, almost complete lack of bank credits and of course tax avoidance.

Table 2 ; Retail Sales and Consumption, Ukraine

	1990	1995	1996	1996 as % of 1990
<b>Retail sales (thousand tons)</b>				
Bread	7568	3222	2613	34.5
Potatoes	1372	209	144	10.5
Meat	2384	513	379	15.9
Sugar	1802	229	157	8.7
Vodka	31	15	9	29.0
<b>Consumption (kg/pers/year)</b>				
Bread	141	128	121	85.8
Potatoes	131	124	126	96.2
Meat	68	39	37	54.4
Sugar	50	32	33	66.0

Source: *Statichnyi... 1996*

### IV. DEMONETIZATION

The rural population was in general poorer than the urban dwellers. Almost all their ruble savings (deposited in the government's saving bank or kept at home) vanished during the hyperinflation of 1992-94. Also their modest dollar and gold savings shrank during the early 90s as a result of a several-fold decline in dollar purchasing power. Wages in agriculture declined much faster than in industry. In 1990, an average official wage in agriculture was 5% higher than the average for the total economy. In 1995 the former was 43% lower than the latter. Given that during this period, according to official statistics, the real average wage declined three times, real rural wage declined by 80-82%. In addition agriculture has had a high ratio of wage arrears. In 1996 in agriculture, when counted per worker, wage arrears were higher than in any other branch of the economy.

In rural areas there is a much higher proportion of the elderly population than in urban areas.<sup>2</sup> This contributes

to rural poverty. The average real pension declined several times. Rural pensions tend to be lower than urban pensions. At the end of 1996, pension arrears amounted to about two months.

As a result, a peculiar moneyless economy has emerged. Today, the monetization of transactions in agriculture is probably not higher than several hundred years ago. In the countryside the use of hryvnia (Ukrainian currency) is quite limited. For larger transactions, US dollars and German marks are frequently used. A large part of agricultural output is used inside the farm or consumed by the rural dweller and his/her family. Some of it is bartered away within a village community or provided to family members who live in the city. Some of it would be delivered to (a nontransparent and quite peculiar) procurement system. Despite the official abolishment of the «gos-zakazy» — the obligatory deliveries of agricultural output at administrative prices set usually solidly below a market clearing level — the state run procurement remains fully operational. This applies to exports as well as to domestic deliveries. Free commodity markets are only in a fledging state. Most of transactions consist of swapping outputs for inputs with no money involved. The state provides farm inputs (seeds, fertilizers, coal, etc.) and receives outputs (such as grain or meat).<sup>3</sup> It has also a heavy presence in storage, processing and distribution (e.g., owns the silos). Even taxes are often collected in kind.

Most of produce sales are done within the shadow economy, often at farmers markets, with no trace in the official statistics and no taxes paid. Very low income of many urban dwellers pushes them toward countryside - to set up small land parcels to grow their own food or to get some food by helping their village family. While, since 1995 food consumption seems to have stabilized, the official market is still shrinking and natural and shadow economies continue growing.

### V. DISTORTED MARKET

The official sector in agriculture suffers large losses as before. State subsidies, tax exemptions, debt forgiveness, foreign technical and financial assistance have failed to help but paradoxically, even worsen the situation. The softness of budget constraints in agriculture seems to paralyze its effective restructuring and growth.<sup>4</sup> Incomplete reforms are often worse than no reform. Ukrainian agriculture moved away from a Soviet state system to hybrid mixture of a primitive market, nontransparent and greatly distorted by different kinds of state «assistance», active (but ineffective and often corrupted) local administration, and (the incompetent and

also often corrupted) management of large state-owned and pseudo-private enterprises. Well over one half of these enterprises are essentially insolvent and could not survive without government subsidy. The official «losses» of the agriculture are greater every year.

## VI. SLOW LAND PRIVATIZATION

Despite intense efforts of Ukrainian reformers and international providers of technical assistance, effective land privatization is far from being completed. Resistance to land privatization and to the establishment of an operational land market is widespread. People have not seen private farming for a few generations. According to the still entrenched Marxist ideology, land must not be a «commodity». Also strong egalitarian and collectivist ideology is an obstacle to individual farming. Nationalistic concerns also play a role («the land is the property of the whole nation»). Fear of foreigners' buyout is significant. Of course the interests of bureaucrats and farm managers play an important part. Finally, there is simply the conservatism of peasants who resist change.

Lack of institutional capacity is an important factor contributing to arrested reform. The process of establishing land records, cadasters, real estate firms, developing valuation techniques, training the trainers and property valuers, courts and arbitrage institutions take time and in the case of individual peasants, have up-front costs. Few people have skills and funds necessary for establishing and running an individual farm. Bank credit is virtually unavailable. The institution of mortgages is unknown. Transportation, communication, and basic services are underdeveloped.

Privatization opponents express fear of social conflicts and the collapse of food production, similar to that which occurred after the Stalin's forced collectivization.

## VII. FARM PRIVATIZATION AND RESTRUCTURING

Partial restructuring of collective and state farms have converted the workers into nominal owners<sup>6</sup>. The farms continue largely as before: with the same management in place, with monoculture and large scale operations as the norm. State enterprises dominate supply of inputs as before, and continue to play a major role in purchase of output. Privatization so far as the farm worker is concerned gives him a share in the assets and profits, if any, of an ongoing enterprise, but little say. Most of the time the share is not identified with particular land (other than the right to cultivate the private plot immediately by the home). Decisions as to crop, resources to use as

inputs, etc., remain with the management. Though in theory it is possible for an individual to withdraw his share, few agricultural enterprises have taken the next step: facilitation of the creation of private farms. As of 1996, in Ukraine, only about 30,000 individual private farms exist, accounting for less than 3% of farmland. These are among the most productive (Csaki 1997).

## VIII. PERFORMANCE OF AGRICULTURE

In 1996 agriculture accounted for 12 percent of official GDP and about 30 percent of total GDP (official and unofficial combined). In 1990, this share was about 25 percent for both official and unofficial<sup>8</sup>. Between 1990 and 1996 the share of labor force in agriculture in total (official) economy increased from about 20 percent to 22 percent. Effectively this increase was greater — since many urban dwellers began growing their own food. The share of official labor income in agriculture to total labor income decreased from about 21 percent to 14 percent. The respective share of official fixed capital investment declined from 24 percent to 7 percent. Again in both cases the 1996 numbers were probably larger due to unofficial (shadow) labor income and capital investment. Given the lack of reliable data it is impossible to decide whether agriculture is a net recipient or provider of state funds. There are many reasons to believe that the true performance of agriculture is better than official statistics would suggest. Yet, without more radical systemic market reforms, significant improvements do not seem possible.

## IX. NOTES

1. Meat prices grew especially fast in 1992-93, bread prices in 1994-96. Between 1990 and 1994 all consumer prices (food, nonfood and services) increased 42,000 times, food prices increased 44,000 times. Between 1994 and 1996, prices of all consumer goods increased four times, while prices of food increased three times (Ekonomichnyi, 1997).

2. While in the countryside 18.4 percent of population were 50-64 years old, and 18.9 percent were 65 years old and more, in urban areas these percentages were 15.7 and 11.3, respectively (Stachnyi, 1996).

3. In 1996 about one quarter of all grain was purchased by the state procurement system (Stachnyi, 1996).

4. For the concept of «the soft budget constraint» in the economy see: Kornai, 1990.

5. This resistance is strong despite the fact that the results of several surveys suggest that the majority of Ukrainian support land privatization.

6. Even here there is evidence that counterproductive practices and corruption exist as in-place management decides which workers are eligible to become «owners». Thus, those who are seen as troublemakers, or as innovators, or otherwise at odds with the (former?) *nomenklatura* can be

excluded as coop members as of the day prior to restructuring.

7. *Ukraine in Numbers*, 1997.

8. Own estimates.

## X. BIBLIOGRAPHY

ADMINISTRATION OF THE PRESIDENT OF UKRAINE, 1997. *Ukrayina ta yiyi Rehioni*, Kyiv.

CSAKI, Cs., 1997. *Land Reform in Ukraine: The First Five Years*, The World Bank, Washington, D.O

GREGORY, P. & STUART, R., 1997. *Russian and Soviet Economic Structure and Performance*, 6th ed., Addison Wesley, Reading.

HUNTER, H. & SZYRMER, J.M., 1992. *Faulty foundations. Soviet Economic Policies, 1928-40*, Princeton University Press, Princeton, NJ.

KORNAI, J., 1990. *The Socialist System. The Political Economy of Communism*, Princeton University Press, Princeton, NJ.

ROTSI, 1997. *Ekonomichnyi i Sotsyalnyi Rozvitok Ukrayiny u 1996*. Unpublished manuscript.

STATICHNYI SHCHORICHNIK UKRAYINI, 1996. *Ukrayinska Entsyklopedia*, Kyiv.

SOROS, 1997. SOROS INTERNATIONAL ADVISORY GROUP. *Ukraine in Numbers*, Kyiv.

UKRAYINA V TSYFRAKH, 1997. Naukova Dumka, Kyiv.

THE WORLD BANK, 1997. *World Development Indicators*, Washington, DC.

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