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Nina Legeida

**Implicit Subsidies in Ukraine: Estimation,
Developments and Policy Implications**

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Reytarska 8/5-A, 01034 Kyiv,

Tel.: + 38 044 228-63-42,

+ 38 044 228-63-60,

Fax: + 38 044 228-63-36

E-mail: institute@ier.kiev.ua

<http://www.ier.kiev.ua>

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Nina Legeida: MA in Economics: Research associate at the Institute for Economic Research and Policy Consulting. Focuses on fiscal policy analysis, in particular, public deficit, debt and various budget issues. Yearly internship at Macroeconomic Indicators and Monetary Policy Department, Ministry of Finance of Ukraine.



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Abstract

This paper considers different kinds of implicit subsidies to the economy, such as privileged taxation, various non-payments, non-monetary transactions, etc. Though implicit subsidies may be quite common in advanced economies as well, for example in the form of tax privileges or preferential credits, the problem of implicit subsidies in transition economies is especially acute, due to their non-transparent and pervasive character. After a review of the various types of implicit subsidies being granted and of the role of the state in their expansion, the total amount of implicit subsidies is approximately estimated. Furthermore, some specific questions are addressed, such as subsidies within certain sectors of the economy, across enterprises of various form of ownership, and regional differences. The paper ends with some policy recommendations.



1 Introduction

“Bad government can ruin the economy, despite human capital and resources” (Paul Gregory, Houston University, USA, 2000)

Fiscal policies play a very important role in determining internal and external economic developments in any economy. In many countries the government is directly accountable for a significant part of economic activity, and may indirectly influence the allotment of resources in the private sector. This is especially true for transition economies, the governments of which continue to play a large role in directing the economic policy of their countries and making large expenditures into the economy. It has been proven that those transition countries that implemented tight fiscal policies at the beginning of the transition process enjoy higher rates of growth now than those transition economies that were slow in adopting restrictive fiscal policies and were reluctant to cut government expenditures (IMF, 1998). Less advanced transition economies, like Ukraine, Russia, etc. exhibit considerable weaknesses in the institutional arrangements, which undermine proper revenue and expenditure management.

In a market economy, the government's role is important, but is radically different from what it was in the centrally planned economies. Under the new circumstances, its principal function is to provide public goods and services rather than to allot resources and predetermine output quotas. Privately owned enterprises carry out the chief productive activities in any free market economy. The ultimate role of the government, i.e. taxing citizens and supporting social activities, becomes clear-cut and well focused. There should be a comprehensible, well-understood margin between private and public sector activities.

Subsidies to the economy, though reduced, continue to be one of the major items of government expenditures in many transition economies. Of course, subsidies are used in market economies as well. Subsidies for energy, water, transport and agriculture, which are essentially price subsidies, are common in many industrialised and developing economies. But in the majority of cases, such subsidies are transparent and are reflected in the budget documents, or in the case of tax privileges, they are presented officially. E.g., in Germany and Austria the Ministries of Finance prepare yearly reports on all subsidies granted, clearly stating the losses that their state households suffer due to these tax privileges. The most well known examples of subsidies in Europe, Canada and the United States are farm price supports. During the 20th century, the governments of Europe, North America and Japan also subsidised ship construction and various forms of public transportation. The greatest portion of government subsidies in the United States is for military programs.

Government deficits have posed a significant problem for most transition countries, including Ukraine. Revenues as a percent of GDP decreased as a result of a decline in production and a deteriorating tax base. Government expenditures had to be adjusted to the actual revenues received. Since the government was rather reluctant to reduce its expenditures, the deficit problem persisted. Actually, the deficit was used to finance public spending, and on top of that mostly current spending. Government



subsidies to the economy are starting to be criticised and are gradually being reduced. Nevertheless, overall state support has not decreased significantly, now being converted into an implicit form¹.

The hypothesis being tested in this research paper is that the role of implicit subsidies as a means of government assistance to enterprises has increased since the beginning of the transition process. Different forms of subsidies change each other, as they become criticized. In the beginning, indirect subsidies changed direct ones; later on, they mutated into a series of different forms of indirect subsidies.

This paper is structured as follows: In Part 2 different subsidies are being defined, and their possible effects are being discussed, followed by a detailed description of different types of indirect subsidies. In Part 3 the paper focuses on the estimation results of direct and indirect subsidies in Ukraine. Part 4 provides some more refined analyses of subsidies across different sectors of the economy, enterprises of different forms of ownership, regional aspects, and of cross-subsidy effects.

2 Theoretical aspects, research and policy framework of subsidies

Subsidies are employed by governments to favour certain enterprises or consumers. The origin of the word "subsidy" is Latin (*subsidium*) and means "reserve troops" or "assistance".² Nowadays, there is no unique definition for subsidy. A good working definition would be: "A subsidy is any measure that prices goods for consumers at below market level – or above market level for producers – or that reduces costs for consumers and producers through direct or indirect support" (Andre de Moor, 2000).

There is still some discussion about whether the subsidy definition should include only cash payments or also indirect forms of government support. Logically, any market distorting intervention that results in the artificial change of a good's price should be treated as a subsidy. Also, different trade distorting policy instruments, such as import tariffs or non-tariff barriers and export restrictions can be recognised as subsidies, though they act more indirectly through price signals rather than through fiscal measures.

A subsidy can be also thought of as a negative tax. The seller's price (P_s) is greater than the buyer's price (P_b) by the amount of the subsidy (see Graph 1). At P_0 , the market price, the elasticities of supply (E_s) and demand (E_d) are approximately equal. When the government imposes a subsidy, the price does not necessarily rise by the full amount of the subsidy; the incidence of the subsidy is split between producers and consumers. Consumers get the benefit of the subsidy if E_d / E_s is small

¹ The terms "implicit" and "indirect" subsidies will be used interchangeably in this paper.

² For more discussion on the definition of subsidy, see Compton's Encyclopedia on line: www.comptons.com/encyclopedia.



and producers when E_d / E_s is large. Four conditions apply for the subsidy analysis:

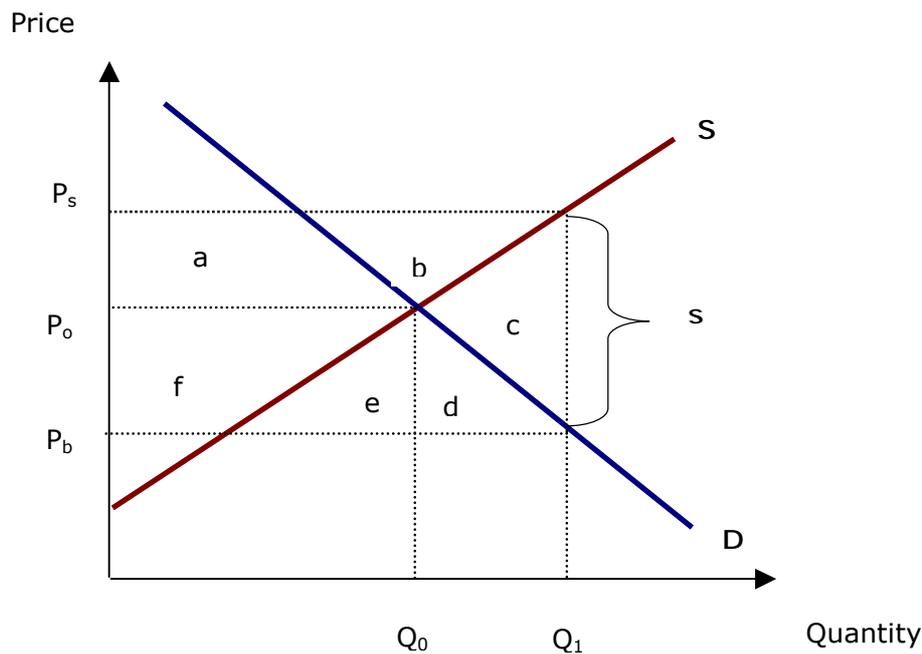
$$Q^D = Q^D(P_b),$$

$$Q^S = Q^S(P_s),$$

$$Q^D = Q^S,$$

$$P_s - P_b = s.$$

Graph 1
Subsidy effect



Source: Pindyck and Rubinfeld (1998)

Here the subsidy effects are distributed evenly between buyers and sellers. Consumers gain $f + e + d$, producers gain $a + b$, the government subsidy amounts to $-a - b - c - d - e - f$. The efficiency loss is equal to c . Subsidies tend to create dead-weight losses, which are a form of economic inefficiency that should be taken into account when policies are designed and implemented.

The word 'subsidy' has many different connotations for different people. Indeed, it is possible to distinguish between different types of subsidies: subsidies to the economy (including output subsidies, export subsidies, etc.), social subsidies, transfers from national to regional households. Cross subsidies to the economy occur when as a result of subsidising one sector of the economy, the government indirectly subsidises other sectors of the economy. This paper focuses on subsidies to the economy, including cross-subsidies to particular sectors of the economy.



According to the System of National Accounts methodology (OECD, 1997), "subsidies on production are grants which state and private enterprises receive from the government and which represent additions to the receipts of producers of goods and services over and above what they receive from the sales of their output". These grants do not constitute a part of the market value of the output; nevertheless, they can offset a part of the production costs.

Subsidies are:

- government transfers to loss-making enterprises for social or other reasons, even if they have little to do with producers' prices;
- subsidies on products, that are paid for each unit of good or service produced (import and export subsidies);
- subsidies on the payroll of the work force, subsidies on the use of inputs, subsidies to reduce pollution.

The following are not subsidies:

- payments to final consumers, these are termed social benefits;
- government grants to finance the capital formation of enterprises, these are termed capital transfers;
- subsidies on imported goods after they have appeared within the economic boundaries of the country;
- export subsidies, which consist of repaying taxes on products, paid within the territory of the country.

Export subsidies are subsidies given to those domestic producers who sell their products abroad. According to the theory on international trade, these subsidies are granted by the government for income distribution, for the promotion of particular industries within the economy, or for balance of payment reasons (Krugman, Obstfeld, 1996). These subsidies are known to create differences in the prices for these goods at the world markets and the domestic prices. Export subsidies create incentives for exports. They may be either specific (that is, a fixed amount per unit) or ad valorem (that is, a proportion of the value exported).

Subsidies can create negative effects at the micro level, as well as at macro level. At the micro level, subsidies can create impediments to competition through unequal conditions for functioning, can lead to the ineffective distribution of resources, can give wrong market signals and can perpetuate loss-making enterprises. As a result of direct and indirect subsidies, the tax burden is not distributed evenly across the economy, i.e. enterprises that are market-oriented and face hard budget constraints pay the major part of taxes in transition economies. At the macro level, subsidies can impose a burden on the state household, create barriers for free trade development and result in welfare losses. The political aspect of the problem includes possibilities for lobbying by separate groups of the society, rent seeking and corruption.

Therefore, the desirability of subsidies is debatable. On the one hand, they may be socially desirable; on the other hand, benefits may be outweighed by costs in the form of higher prices for consumers, the distribution of funds between different consumers and producers and welfare losses.



Every subsidy is generally provided at somebody's expense. The desirability of the subsidy needs to be tested by a cost-benefit analysis, under which public benefits are compared to public costs in the form of higher prices, taxes and inefficiency.

3 Indirect or implicit subsidies

3.1 Definition of indirect subsidies

Direct, or explicit subsidies, are usually reflected in the official budget documents. They are the subsidies in the 'narrow' sense of the word. Indirect, or implicit subsidies are subsidies in the 'broadest' sense of the word. The concept of an implicit subsidy is closely connected with the economic concept of the subsidy: "An implicit subsidy arises when the production of a good creates a negative externality – a cost imposed on the society by a good or activity which is not fully reflected in the market price, because those effected are not involved in the market transaction. Thus, some of the true costs of the good's production and consumption are not borne by the producer, who receives the subsidy from those who do bear those costs. The price of a good sold under these conditions is artificially low, but the market is distorted"(Porter, 1997). What distinguish indirect subsidies most clearly from direct ones in a transition economy are their non-transparency and their wide spread use. Direct subsidies are generally granted to a small number of firms, mostly state-owned. Due to the broad nature of implicit subsidies, it is difficult to define them precisely and it is better to distinguish between their different categories.

3.2 Types of indirect subsidies

3.2.1 Tax expenditures

In the public finance literature, tax policy is seen as one of the most important means of providing indirect subsidies. Tax expenditures can be defined as "policies that exclude, defer, or exempt portions of income from taxation...Tax expenditures also provide preferential rates of taxation, tax credits, and deferred taxation for various economic activities." (Marlow, 1995). Different forms of tax expenditures can be treated as substitutes to public expenditures, and, therefore, as a part of the government household, and since they are related to economic activities, as a form of indirect subsidies to enterprises. This includes all tax policies that lead to revenue losses for the state. Some economists question whether all tax expenditures really are revenue losses, since not all represent subsidies to the economy and should, therefore, be treated as "bad" subsidies.

Tax expenditures are known to have allocational and distributional effects. The allocation effect of tax expenditures is that they cause resources, directed into one particular activity, to be taken away from other economic sectors, indicating that tax expenditures have opportunity costs. The



distribution effect of tax expenditures is that they effect income and tax burden distributions across various economic objects. Individuals who enjoy a reduced tax burden as a result of a particular tax subsidy could benefit to the same extent if these expenditures were directly assigned to them by the government. In that way, tax expenditures and fiscal expenditures are very similar and may be substituted for each other.

Tax expenditures cannot be precisely estimated. There are several reasons for that (Marlow, 1995):

- 1) "Tax expenditures have incentive effects that alter economic behaviour".

A reduction of the amount of tax expenditures will result in a smaller state revenue increase than the state revenue loss occasioned by the same tax expenditures.

- 2) "Tax expenditures are interdependent". As a result of a change in one area of tax expenditures, there may be revenue losses, resulting from other kinds of government expenditures.

- 3) "Repeal of some tax expenditures may change rates of economic growth." Economic recessions are usually associated with decreasing tax revenues for the government, while economic booms usually result in higher tax collection.

As a result of these effects, there is no precise relationship between tax subsidies and direct government subsidies. Notwithstanding their similarity, they are generally not treated the same in the government accounts of developed countries, and are presented in their household appendices.

Several categories of tax expenditures exist:

- a. Subsidies in the form of *tax privileges* (separate exemptions from paying taxes), and *free economic zones* (whole regions, exempted from paying a number of taxes designed to create a favourable investment climate)

On the one hand, implementing experiments in separate industrial branches and introducing privileges for particular enterprises involves large explicit fiscal costs, in the form of lost state revenues (macro effect). On the other hand, they also result in implicit economic costs, leading to discrimination against other industries and enterprises, stifling competition between enterprises by creating unequal operational conditions, especially when granted on a case-by-case basis (micro effect).

- b. Subsidies in the form of *tax and extra-budgetary fund arrears* (excluding the late payment of taxes penalties)

Tax arrears (i.e. payments to the state that are not settled on the due date) can be treated as a means employed by enterprises to decrease their actual tax obligations and alleviate the tax burden.

- c. Writing-off or restructuring of tax arrears

These tax expenditures are especially harmful as they destroy any incentive by enterprises to pay taxes, knowing that at some future date the accumulated tax arrears will be written-off or restructured. This may apply mostly to transition economies. Delays in tax payments can be caused by



weaknesses in the tax system of the country or by the absence of financial discipline. It is one of the key elements of soft budget constraints in the slow reforming transition economies (Schaffer, 1997).

d. Tax evasion

Tax evasion may be similar to granting tax privileges. However, tax privileges are granted by the state, whereas in the case of the tax evasion, the enterprise chooses not to pay taxes, or to hide profits thus receiving indirect benefits, which often end up in the management's pockets (rent-seeking). The result for the government is a loss of revenue.

3.2.2 Payables

Payables between enterprises constitute a part of their "soft budget" constraints. Another term for payables is trade credit, which is usually of a short-term nature. Overdue payables can be treated as long-term trade credits.

Enterprise debt, that is payables (payments by enterprises to suppliers, workers, the government, etc., which were not settled on their due dates) and receivables (debts to an enterprise by other enterprises and organisations), exists both in transition and market economies. In moderate amounts such debt is seen as enhancing economic efficiency. Trade credit is used extensively in Western market economies: 15-20% of GDP in Canada, the US, the UK, 40% in France, 55-60% in Japan (Schaffer, 1995). It is normal for suppliers to extend credits to their customers. Overdue trade credit is also present in market economies. Serious problems arise only when inter-enterprise debt becomes excessive and persistent. In industrialised countries it costs much less to borrow from banks than from suppliers. In transition economies however, the opposite situation can be observed.

Arrears may be fostered by economic and institutional factors. The most important economic reasons are:³

- a means to finance enterprise operations: Debts between enterprises tend to decrease transaction costs and increase their sales. Such arrears may be treated as a substitute for bank credits. This payment mechanism is especially convenient in countries with underdeveloped banking systems and capital market imperfections;
- a response to supply or demand shocks: Arrears are a way to substitute for liquidity shortfalls resulting from such shocks;
- a response to the tightening of the credit conditions: This is a transfer of the liquidity from liquidity-rich to liquidity-poor firms;
- a way of keeping loss-making enterprises going: Such enterprises, so-called value-subtractors, finance their operations through their growing debt.

Institutional factors include the absence of effective bankruptcy and liquidation procedures, the use of collateral, and contract enforcements.

³ For more discussion of this issue, see Ukrainian Economic Trends, September 1997.



Energy subsidies⁴ play a very important role among overdue payables, especially in such transition economies as Russia, Ukraine, etc. Payments for overdue energy payables are often made by non-cash settlements where the goods or services supplied are 30% overvalued on average. Workers also provide credit to enterprises and the government by not receiving their wages. In addition to debt between domestic enterprises, there are payables to foreign firms.

3.2.3 Non-monetary transactions

Different forms of barter such as mutual offsets, barter transactions in the original sense of the word, the use of bills of exchange, and many other non-monetary transactions can also be treated as implicit subsidies. They all tend to distort price signals, make it difficult to distinguish between viable and non-viable firms, etc..

- Tax offsets

Tax debts of enterprises are at times cancelled by the government in return for goods acquired at prices higher than their true value. Russian economists (Brian, Drebenstov and Morozov, 1999) estimate these tax offsets to be valued usually at 30% above market prices.

- Barter

The nominal price of barter goods is said by some economists to be higher than their real price. Barter may help to overstate costs and understate the value-added. It is a way of short-term lending.

According to an HIID⁵ review on the literature on barter, four causes of barter are seen to be the most common by economists who have studied the problem:

- 1) weak policy, i.e. high tax rates, ineffective bankruptcy laws, avoidance of restructuring, soft budget constraints;
- 2) weak banking, i.e. lack of working capital, lack of credits, high credit rates, Kartoteka-2;
- 3) weak market, i.e. market power, disorganisation, inflation, non-cash environment;
- 4) weak corporate governance, i.e. tax evasion, a virtual economy, principal-agent problems, rent-seeking.

3.2.4 Banking subsidies

Domestic or foreign banks may also indirectly subsidise economic activities. The banking system has been of crucial importance in the soft budget constraints system of firms in slowly reforming economies (Schaffer, 1997). Old bank credits are often refinanced, or just written off.

⁴ In Russia non-payments for energy to the energy monopoly Gazprom and its counterpart in the electricity sector, RAO EUS, constitute a large amount of the country's non-payments. The companies have acquired shares of several companies by converting overdue receivables into equity. Gazprom has interests in ferrous metallurgy and petrochemicals, while EUS concentrates its attention on non-ferrous metallurgy (Pinto, Drebenstov, Morozov, 1999).

⁵ Harvard Institute for International Development Project in Ukraine.



Several groups of such banking subsidies may be distinguished:

- privileged credits, i.e., credits at below normal interest rates, or credits with government guarantees, i.e. credits given to enterprises by domestic or foreign banks, for which the government is the guarantor of last resort;
- debt by enterprises on interest or principal payments for bank credits, or payables to banks;

In transition economies, the domestic and foreign banking systems often become creditors to enterprises, not only directly through providing bank loans, but indirectly as well when the enterprises fail to make principal or interest re-payments on their due dates.

- interest payments that firms should have but have not made for credits from financial institutions rather than suppliers (in the form of unpaid obligations) are lost profits for the banks. All non-payments can be treated to a certain extent as interest-free loans by the state, by commercial banks, by workers or by other enterprises.

3.2.5 Trade subsidies

Another form of indirect subsidies are protectionist measures, e.g., import quotas and price supports.

These subsidies are wide spread in most industrialised countries. They protect from competition or failure. For example, when the US government restricts the import of Japanese cars into the country, US producers will benefit from the reduced competition by raising prices; hence, US consumers are likely to suffer. Protectionism is a very common approach to subsidising domestic industries at the expense of foreign ones in international trade. Protectionist measures include high import taxes or tariffs, and import quotas.

3.2.6 Other implicit subsidies, granted by the state

This group includes state control over prices, the privilege of receiving state orders or government contracts, privileges to buy goods or services from the government at below market prices, and the possibility to use government land or buildings for free.

The points presented above are summarised in Table 1.

In this paper I intend to concentrate on the first two groups of subsidies, namely tax expenditures and payables, and only to a lesser extent on mutual offsets and banking subsidies.



Table 1
Summary of indirect subsidies to the economy

<p>1. Tax expenditures</p>	<ul style="list-style-type: none"> • Tax exemptions • Free economic zones • Deferment of tax payments • Write-offs or restructuring of tax arrears • Tax evasion
<p>2. Overdue payables</p>	<ul style="list-style-type: none"> • Arrears between domestic enterprises (payables or trade credits) • Wage arrears • Payables to other countries
<p>3. Non-monetary transactions</p>	<ul style="list-style-type: none"> • Mutual offsets • Barter transactions • Bills of exchange
<p>4. Banking subsidies</p>	<ul style="list-style-type: none"> • Privileged credits (at lower interest rates) • Credits under government guarantees and debt on these credits • Interest payments • Payables before banks
<p>5. Trade subsidies</p>	<ul style="list-style-type: none"> • Any protectionist measures: customs and any other measures regulating external activities
<p>6. Other implicit subsidies, granted by the state</p>	<ul style="list-style-type: none"> • Preferment for government purchases • Privileges granted by the state or other enterprises to purchase goods and services at prices below market value • Use of state land or buildings without paying rent • Government price controls

4 Direct and implicit subsidies in Ukraine

4.1 Direct subsidies in Ukraine

For many years of the transition process, the government of Ukraine has continued to support economic activities, same as during the Soviet times, paying less attention to the improvement of its social functions, such as developing a social safety net, education policy, health care policy, etc.. One of the major items of the government expenditures were direct subsidies to enterprises. These subsidies were mainly price subsidies, after price liberalisation (under centrally planned economy prices are administratively set), their need diminished. At the early stages of the



transition process, these subsidies to the economy were necessary from a social point of view (a large amount of the labour force was engaged at the subsidised enterprises). But they delayed the process of restructuring of these enterprises, their privatisation, and they fostered corruption. Fewer state revenues remained to finance social expenditures, which resulted in the government accumulating social arrears, and state-owned organisations amassing utility arrears. The result of this government policy was a series of fiscal deficits and rising public debt.

During the transition period from 1992 to 2000, considerable changes in the structure of the consolidated household⁶ expenditures can be pointed to. There has been a shift from national economy expenditures (43% of fiscal expenditures in 1992 versus 15% in 2000) to other expenditures. The share of social expenditures and the debt service had increased noticeably by 2000 (social expenditures increased from 28% in 1992 to 42% in 2000, the debt service went up from about 0.1% of state expenditures in 1992 to about 13% in 2000) and state activities doubled. The decrease in national economy expenditures was even more pronounced, when expressed in percent of GDP (see Table 2). Their decline constituted the greatest share of the decline in the total expenditures.

Table 2

Ukraine: Consolidated household expenditures, percent of GDP, 1992-2000

	1992	1993	1994	1995	1996	1997	1998	1999	2000
State activities	3.4	4.7	4.7	4.7	4.5	5.5	4.5	4.0	5.3
Social, cultural and science expenditures	10.6	21.8	17.4	17.8	15.2	17.5	13.1	10.8	11.2
National economy expenditures	16.4	8.0	15.7	7.8	5.9	8.8	6.3	5.4	4.1
Housing and communal services	n/a	1.	1.7	0.8	0.6	0.6	1.4	0.9	0.3
Chernobyl fund expenditures	2.3	1.3	1.9	1.7	1.9	1.9	1.4	1.1	1.0
Environmental protection	n/a	n/a	0.1	0.1	n/a	0.0	0.0	0.0	0.1
State debt service	0.03	0.4	1.1	4.5	3.0	3.2	2.3	2.4	3.4
State funds	n/a	n/a	n/a	n/a	n/a	n/a	0.6	0.8	1.2
of which Innovation Fund	-	-	-	-	-	-	0.2	0.2	0.0
Total expenditures	38.2	38.6	44.9	37.0	33.1	37.1	30.4	27.2	27.0
Nominal GDP, m UAH	50	1483	12038	54516	81519	92484	102593	127126	175000

Source: Reports of the State Treasury of Ukraine; own estimates

⁶ Note: The consolidated household of Ukraine consists of the State (Central) household and of households of the local governments. It does not include the Pension Fund or any other extra-budgetary funds.

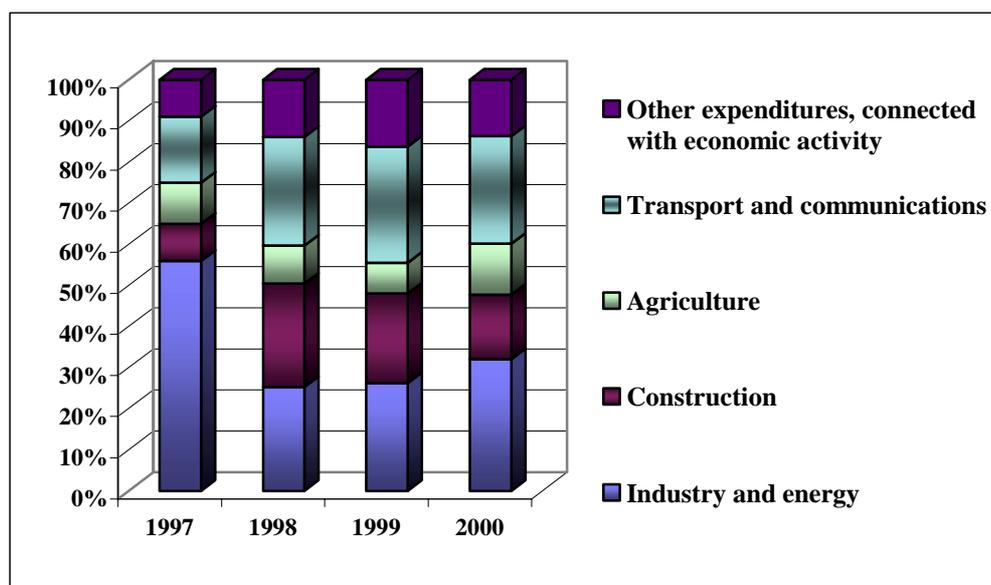


State activities include public administration, judicial system, international affairs, national defence, and law enforcement. Social, cultural and science expenditures comprise education, health, social protection, fundamental research, culture and art, mass media, and sport. National economy expenditures comprise industry and energy, construction, agriculture, forestry, fishery, transport and communications expenditures. For the years 1997 to 2000 these national economy expenditures also included expenditures related to economic activity, replenishment of state reserves, the reserve fund of the Cabinet of Ministers, as well as government loans.

The major recipients of government subsidies (direct state subsidies in the broadest sense of the word) continue to be the coal industry (the bulk of the industry and energy expenditures), construction, transport, and agriculture⁷. The expenditures for agriculture, transport and construction increased within the consolidated household, while the share of expenditures for industry and energy decreased (see Graph 2).

Graph 2

Ukraine: Structure of the consolidated household expenditures related to different economic activities, 1997-2000



Source: Reports of the State Treasury of Ukraine

⁷ It should be noted that the national economy expenditures couldn't be treated as subsidies in the narrow sense of the word. They may contain some other expenditures, related to other functions of the government. For example, certain parts of construction expenditures could be treated as social expenditures, e.g. expenditures aimed at providing housing to military personnel, or giving credits to young families and single people for building houses. Other parts of these funds may be directed towards special architectural services, such as the restoration of monuments, etc. Among transport expenditures, there are compensation payments for privileged fares for certain categories of people. Among the Chernobyl Fund activities, there are expenditures, directed at the social protection of people, who suffered as a result of the Chernobyl catastrophe, connected with movement of people from one territory to another, and there are state capital expenditures. However, the percentage of these social expenditures is not high.



Among the other government expenditures to the economy, a group of subsidies should be highlighted which takes an intermediate place between direct and indirect subsidies to the economy. These subsidies, which are reflected in the budget, include expenditures to the State Innovation Fund and to the Reserve Fund of the Cabinet of Ministers. Others involve the replenishment of state reserves, government loans and expenditures for government guaranteed credits.

The State Innovation Fund was created to promote innovative activity by enterprises, to foster the development of new technologies, etc. But the distribution of these funds has always been questionable, and most probably a part of them has been used to support current activities of the enterprises.

During 1992-1999 the state supported enterprises by granting foreign or domestic credits under government guarantees. Because many enterprises failed to service these credits, the government ended up paying for them, thus, producing an additional burden on the government expenditures.

Another form of government subsidy is government loans under favourable conditions or terms. Again, if these are not repaid on their due date, this form of direct government support turns into an indirect subsidy.

Nevertheless, the radical shifts in the structure of government expenditures, including the rapid downward trend of national economy expenditures as a percentage of GDP fail to explain the true picture of the government's involvement and its size in the economy of Ukraine. It would throw more light on the government's involvement in the economy if all previously non-budgeted funds, created by different ministries, would be included in the official household figures⁸. Being constrained in its capacity to generate revenues for financing its desired expenditures, the government started to look for indirect ways of reaching its goals. Indirect subsidies started to occupy the lion's share of government assistance to enterprises, taking the place of direct subsidies.

4.2 Estimation of implicit subsidies in Ukraine and their dynamics

The widespread existence of implicit subsidies in Ukraine today can be attributed to a number of factors:

- the practice of subsidising the economy, inherited from Soviet times, and insufficient resources to finance government expenditures directly. Essentially all economic activities were performed by state enterprises; all were public before the transition process began;
- their profitability for certain interest groups and for the government as well. To a certain degree, this is related to the previous statement. The government could not finance its expenditures. This caused the

⁸ In 2000 the government brought all external funds of the so-called "budget organisations" into the consolidated government household, which increased the volume of state revenues and expenditures, and contributed to greater transparency in the budgeting process.



government to become indebted to workers and various social groups, and led to arrears of government financed organisations vis-à-vis energy companies, which in turn created incentives for mutually beneficial settlements of the problems – mutual offsets;

- the appearance of strong regional lobbies and the use of free economic zones and territories with special investment conditions as a tool of regional policy;
- the discrepancy between macroeconomic and microeconomic policies is a decisive factor in the system of non-payments (Pinto, Drebenstov, Morozov, 1999). Macroeconomic policy was directed at achieving macro-stabilisation by fixing the exchange rate and credit constraints. Microeconomic policy aimed at social protection of the population, by avoiding cases of bankruptcy and providing indirect subsidies to enterprises in the form of increasing payables and non-monetary payments of taxes, especially for energy. Energy monopolies, in their turn, did not pay taxes and created mutual settlement schemes. No punishment for non-payment existed;
- imperfect tax legislation - high tax rates and frequent tax changes - led to instability in the legal and business environment. This eventually caused accumulations of tax arrears (arrears had also existed in the command economy, but were netted out at year-end) and in the large number of tax evasion cases that result in revenue losses to the state;
- a weak financial system, e.g. excessive dependence of state owned banks on government decisions concerning the specific industries or businesses to be favoured (e.g., Bank "Ykraina"), etc..

A detailed analysis of the different kinds of implicit subsidies used in Ukraine will now be presented.

4.2.1 Tax expenditures

- Tax privileges, free economic zones, and territories with special investment climate

In recent years Ukrainian tax policy has been dominated by the introduction of a myriad of different new arrangements providing new or more profitable privileges to particular groups, sectors or firms, and by the establishment of free economic zones and territories with special investment climate. This policy is usually motivated by political considerations rather than by economics. Most tax privileges concern the major taxes like VAT, EPT, the land tax, import duties and excise taxes, all affecting the central state household.

Of course, tax privileges can be given for social reasons. Examples are EPT exemptions for enterprises connected with the Ukrainian public organisations for disabled people, or land tax exemptions for cultural, scientific, educational, health care, social protection and sports organisations, or VAT exemptions for the sale of domestic products for children in specialised shops, or VAT exemptions for the sales of drugs and medical goods, or for granting beneficial help. Nevertheless, the bulk of tax exemptions is granted for purely economic reasons, for example, a fixed



tax for agricultural producers, or VAT exemption for agricultural products.⁹ The government also has often provided privileged taxation for the import of fuel or fuel products necessary for power generation, or used by agricultural producers.

12 special free economic zones exist in Ukraine¹⁰ at this time. A special investment regime is in place for enterprises of 9 regions. In particular, during 1998-2000 such regimes were introduced for specific territories in Crimea, Donetska, Volynska, Zhytomyrska, Zakarpatska, Luhanska, Chernihivska oblasts, and in the cities of Shostka and Kharkiv. Special free economic zones were created in Donetska oblast ("Donetsk"), Kyivska oblast ("Slavytych"), Lvivska oblast ("Tryskavets" and "Yavoriv"), Mykolayivska oblast ("Mykolayiv"). There also exist some free economic zones with an external trade orientation: "Azov", "Zakarpattya", "Interport Kovel", "Reni", "Porto-Franko" and port "Crimea".¹¹ In addition, the Northern Crimean economic zone "Syvash" has been in existence since 1996. It is a pilot project for conducting local ecological experiments with elements of a special ecological zone.

The main objectives of free economic zones are to stimulate entrepreneurial activity, structural reforms through the attraction of foreign investment, exports of goods and services, the supply of high quality goods to the domestic market, the introduction of new technologies, improving the utilisation of natural and labour resources, and speeding up regional social and economic development. Special economic zones may have specific aims: foreign trade, complex production, specialised know-how, tourism and recreation, offshore activities, and border trade. Parliament can create free economic zones upon an initiative by the President, by the central government, local councils of people's deputies and local state administrations.

A territory of priority development is defined as a territory where unfavourable social, economic and ecological conditions exist and where a special regime of economic activity was introduced. The regime provides tax, customs and many other incentives to stimulate economic activity and investment projects in the territory.

Not all free economic zones in Ukraine are effective. Some of the zones do not use their right to conduct privileged investment activity. The Ministry of Economy of Ukraine identified 'Syvash' and the free economic zone in

⁹ Source: Reference book No. 13 of privileges to juridical persons, concerning payment of taxes, fees and other obligatory payments (as of 01.03.2000), issued by State Tax Administration of Ukraine on 20.03.2000.

¹⁰ On September 12, 2000, the Parliament of Ukraine approved a decree by the Cabinet of Ministers of Ukraine, which prescribes a temporary moratorium on the creation of new special economic areas.

¹¹ There are two official documents, which regulate the activity of free economic zones in general:

1. Law of Ukraine "On general grounds for creating and functioning of special (free) economic zones" No. 50, Article 677 as of October 13, 1992.
2. Decree by the Cabinet of Ministers "On the conception of creating special (free) economic zones in Ukraine" No. 167 as of March 14, 1994.



Donetska oblast as being among the most successful ones¹². Such industries as chemical, metal, food, coal, machine-building, light industry, transport and communications are seen as being the most attractive ones for investment projects. In some economic zones, enterprises are said to misuse their right for preferential VAT or import duty taxation and may import goods, not authorised by law.

In addition to free economic zones and territories with special investment climates, there are the so-called economic experiments, e.g. at metallurgical enterprises, at the Kyiv building company "Kyivmiskbud", in the wood industry of Chernivetska oblast, for space and other industries.

Free economic zones exist in market economies as well, but in Ukraine a wide range of business activities is performed in them and they are spread over large territories. Since the tax breaks cause fiscal losses, which may generally exceed the government revenues (see Appendix, Table 1), they have to be offset by imposing a higher tax burden on the non-privileged enterprises. This creates unfair competitive conditions for many enterprises in Ukraine.

- Tax and extra-budgetary fund arrears

Imperfections in the tax system, a high tax burden, the possibilities to interpret the tax laws in different ways, legislative instability, poor financial discipline, etc. all have led to the accumulation of tax and extra-budgetary fund arrears. The fees and interest charged against late payment of taxes are low compared to the tax level, which makes late payment of taxes due quite attractive. The major part of the tax liabilities can be treated as subsidies, as they are unlikely ever to be paid in full. Most tax arrears are VAT arrears; this together with the great number of VAT exemptions has contributed to the erosion of this - in principle - most stable tax base. Compared to the growing losses in government revenues resulting from preferential taxation in recent years, the growth of arrears in 2000 has slowed significantly. Unfortunately, not only positive reasons (i.e. economic growth allowing for timely payment of accrued tax liabilities), but also negative ones can explain this fact, namely the frequent incidence of writing off arrears by the government.

- Restructuring or writing off of tax arrears

It is impossible to get exhaustive information on the scope of these types of tax expenditures; the only available data being the legislative acts prescribing them. Even where write-offs or restructured tax arrears are mandated, the reality may be quite different, since some of the enterprises included may not be entitled to receive such benefits. These subsidies primarily concern agricultural producers. Among other favoured industries are metallurgical enterprises, coal mining enterprises, etc. In 1997 a measure was enacted which was intended to be of a one-time nature, but which ended up being a permanent rescue measure for loss-making

¹² The following criteria are used for evaluating free economic zones and territories with special investment climates: the number of investment projects, the volume of internal and external investment, the profitability of enterprises and budget indicators. The vast amount of free economic zones and territories with special investment climates has been criticised by the IMF in recent years.



enterprises, and an incentive not to pay taxes at all. In 1997 a sum of UAH 5.4 bn was written off which could easily explain the low amount of government arrears as a percentage of GDP in 1997. According to the Pension Fund authorities¹³, the Pension Fund restructured or wrote off about UAH 4 bn during 1997-1999. The practice of writing off tax arrears continued in 2000¹⁴.

- Tax evasion

Tax evasion is very wide spread in Ukraine. Many enterprises show negative profits and yet continue operating. According to one 1996 survey of 150 state owned and private businesses in 5 Ukrainian cities, conducted by the State Committee on Regulatory Policy and Private Enterprise, the lower bound of tax evasion is 22%, and the upper bound averages 43%. Taking into account the recent trend of increases in the number of loss-making enterprises, it can be argued that the share of hidden profits has been stable or may even have increased. Also, many wages are paid in 'envelopes' (unofficially).

4.2.2 Payables

Payables are wide spread in CIS countries at this time; their volume is much higher than the volume of trade credits considered normal in industrialised countries. Some of the more successful transition economies have reduced their payables rather quickly, but the problem has remained pervasive in the majority of countries. At the present moment, overdue payables in Ukraine constitute about 66% of GDP (cumulative, as of 01.01.2001).

There are several categories of accounts payable by Ukrainian enterprises (see Appendix, Table 2):

- payables between enterprises, the majority of which are payables for work, goods and services, wage and tax arrears, and extra-budgetary funds arrears;
- payables to other former Soviet Union countries;
- payables to other countries;
- payables to banks.

Payables between Ukrainian enterprises and organisations take up the lion's share of total payables between 1996 and 2001, though they were reduced from 93.7% on 01.01.1996 to 87% on 01.01.2001.

¹³ Source: Ynian. Region, No. 099 (318), December 16, 2000.

¹⁴ On December 21, 2000 Parliament adopted the Law 'On the procedures for redeeming tax obligations to the state and to target funds' which abolishes Kartoteka No. 2. According to this law, the accumulated tax debts as of January 1, 2000 are to be written off, while the tax debts accumulated during 2000 are to be restructured for 60 calendar months. In addition, during 2000 tax debts were written off or restructured for the machine-building industry, for ferrous metals, and for agricultural producers connected with the process of reforming agricultural enterprises.



Overdue trade credit in many developed and transition countries constitutes about one third of the total trade credit. In Ukraine the situation is much worse. At the beginning of 1997 overdue arrears made up about 74% of total arrears, although by the beginning of 2001 the percentage of the overdue trade credit had been reduced to 43% (see Appendix, Table 3).

Overdue payables as a % of GDP decreased significantly during the last year. The sharp decrease in 1998 may be explained by the sharp devaluation of Ukrainian hryvna at the end of 1998, when enterprises could pay for the goods, work and services supplied at an earlier time with a cheaper currency. The even more dramatic decrease in overdue payables in 2000 may be attributed to economic growth in the country, growth achieved without creating new overdue debt (see Appendix, Table 4).

Payables to suppliers, workers, etc. can compensate for high production costs. Among payables for goods, work and services, the greater share of payables are for energy arrears.¹⁵ This fact, in turn, serves energy companies as an excuse not to pay of taxes to the state. Ultimately, it is the government who is responsible for permitting these types of subsidies, since it itself does not fulfil its obligations to its civil servants, to the coal mining industry, and to pensioners, students and other social groups. The major consumers of energy in Ukraine are state-financed organisations, especially at the local level, where communal expenditures tend to be underestimated. This creates the motives for mutual settlements between the government and various electricity, thermal energy and water supply companies. These non-payments seem to form a vicious circle from which everyone benefits, even the ordinary citizen whose wage arrears guarantee his work place. However, the economic and environmental losses are huge. It can be argued that the energy sector is the centre of non-payments at the present moment. It is a net creditor, it subsidises other industries, and is, thus, an overall loser. On the other hand, this industry receives direct government financing. Consequently, this industry can also be seen as a "winner", especially when taking into account that it settles its accounts vis-à-vis the government and extra-budgetary funds in a poor manner, thus, receiving indirect government subsidies as well.

Increasing social tension (e.g. strikes by miners and teachers, parliamentary elections in 1998 and presidential elections in 1999) resulted in the reduction of wage arrears from about 1.6 % in 1997 to 0.4 % in 1999 (see Appendix, Table 5). In 2000 total wage arrears even declined to 0.2%.

¹⁵ As of 01.09.00 among the biggest energy debtors have been the coal industry (9%), chemical and metallurgical enterprises (6%), machine building (2%), agricultural enterprises (9%), communal enterprises (18%), state and local households (3%), and other industries (16%). Source: Ukrainian Invest Gasetta, October 3, 2000, No. 39 (200).



4.2.3 Non-monetary transactions: mutual settlements, tax payments in kind, barter transactions (inputs/outputs), use of bills of exchange, etc.

These transactions can be treated as implicit subsidies too, since the prices of the manufactured goods used in non-monetary transactions appear to be inflated above their true market cash value equivalents.

- Mutual settlements, tax payments in kind

Non-monetary settlements between state-owned organisations and other enterprises usually take the form of deliveries of goods to the state-owned organisations to offset tax arrears. These are usually non-equivalent exchanges, i.e. the value of the written-off arrears usually exceeds the value of the delivered goods. Though this practice has been severely criticised in recent years and the government has prohibited the use of mutual settlements in transactions with the state, they continued to take place in 2000. The government has never allocated enough funds to the state-owned organisations to pay for energy, water and any other utilities. What is more, state-owned organisations never saw payment of these bills as a priority, preferring to spend their funds on administration, on payment of wages, etc.¹⁶ In the past, mutual settlements constituted a significant amount of consolidated state revenues.

To obtain the amount of the implicit subsidies resulting from mutual settlements between the government and enterprises, the amount of the tax offsets can be discounted down to 30%. This is the minimum discount rate; in some cases it is more than 70%. A discount is typical for all mutual offset operations and is actually their primary objective. In this paper we assume the price premium to be 30%, that is the procured goods and services are presumed to be overpriced by 30%. The implicit subsidies from these offsets are then estimated as follows:

¹⁶ Though these mutual settlements may not be shown directly as government revenues, there is a legal loop hole which permits these transactions: offsets between state-owned organisations and energy suppliers were permitted by Articles 60 and 71 of the Law on the state household for 2000. Among the most recent government decisions of this type have been the enactment of the Cabinet of Ministers "On confirming the order of conducting settlements for electrical and heat energy, natural gas, water services", No. 934 of 07.06.2000. Similar regulations were enacted in November 2000. The 2000 budget also contains Article No. 10, which allows mutual offsets between restructured VAT arrears and VAT compensation arrears in the amount of UAH 1,5 bn. Such arrangements cause expectations to grow that such acts will continue in the future, which results in the fall in the cash government revenues. There were similar provisions in the state budget laws for 1999 and 1998. The Law of Ukraine "On the procedure of putting into effect of the Law of Ukraine "On the State Budget for 1998"" allowed mutual settlements exclusively between the Ministry of Defence of Ukraine and agricultural enterprises. But in practice, such mutual settlements were transacted in all sectors of the economy.



$$\text{Implicit subsidy} = \text{Offset amount} * 0.3/1.3^{17}$$

Based on this assumption, the estimation results are:

Table 3

Ukraine: Implicit subsidies from mutual settlements, 1995-2000

	Mutual settlements and bills of exchange in the state household UAH, m	Estimated total implicit subsidies, UAH, m	Implicit subsidies, % of GDP	Nominal GDP
1996	3583.0	826.8	1.0	81519
1997	8336.9	1923.9	2.1	92484
1998	6280.8	1449.4	1.4	102593
1999	6237.2	1439.3	1.1	127126
2000	7524.6	1736.5	1.0	175000*

* preliminary data

Source: Ministry of Finance of Ukraine; State Statistics Committee of Ukraine; own estimates

- Non-cash settlements for energy

Prices of goods and any other non-cash instruments, which are used to pay for energy supplies are frequently inflated by 30%. The energy prices themselves cannot be inflated, as they are set by the energy commissions. The same formula as above can be employed to calculate the implicit subsidies resulting from the non-cash settlements for energy supplied by the energy producers to the wholesale energy market. For many years in Ukraine the electricity generation sector had been characterised by low collection rates and by low cash collections in particular. Due to data limitations, our estimations can be presented for the years 1999 and 2000 only (see Table 4).

Table 4

Ukraine: Non-monetary settlements for energy, 1999-2000

	Non-cash settlements for energy, UAH, m	Implicit subsidy, UAH, m	Implicit subsidy, % of GDP	Nominal GDP, UAH, m
1999	10371.5	2393.4	1.9	127126
2000	8467.7	1954.1	1.1	175000

Source: Ministry of Fuel and Energy of Ukraine; own estimates

¹⁷ This methodology was used by the Russian economists Pinto, Drebenstov and Morozov (Pinto, Drebenstov, Morozov, 2000).



- Barter

Among CIS countries, barter is most common in Russia and Ukraine. Barter operations have declined recently. In the trade of finished goods there is less barter than in the trade of intermediate products. The energy sector is most affected by barter operations.

4.2.4 Banking subsidies

This is perhaps one of the most non-transparent kinds of implicit subsidies, especially as it concerns privileged credits at below market interest rates. In Ukraine government guaranteed credits are issued by Ukrainian and by foreign commercial banks. In many cases the government is eventually forced to repay these credits, particularly the foreign ones. Such credits are often given to inefficient enterprises, most of which are agricultural enterprises. Some direct government expenditures are actually shown on the debit side of the annual state budgets. The arrears for such credits to the state are supposed to be included as payables in the general company accounts. Concerning the non-payments of credits to Ukrainian commercial banks, they too tend to increase the amount of bad or overdue credits in the Ukrainian economy. In order for the government to avoid fiscal deficits itself, it obliges domestic banks to subsidise enterprises, thereby imposing a burden on the Ukrainian banking system. This was the kind of practice that eventually resulted in the current problems with Bank Ykraina.

However, most enterprises prefer to take credits from their suppliers rather than from financial institutions. In this way they avoid making interest payments on trade credits altogether, which is a kind of implicit subsidy, too. To estimate the amount of these 'subsidies', imaginary debt interest payments - excluding arrears to the state - were estimated by applying commercial bank interest rates (weighted average) to credits (UEPLAC) (see Table 5).

4.2.5 Trade subsidies

Protectionist measures are very prominent in metallurgy, machine building and agriculture. These measures tend to decrease the competition in these industries and give grounds for trade partners to demand compensating sanctions. These subsidies are beyond the scope of this investigation.

4.2.6 Other implicit subsidies, granted by the state

According to law, the State Reserve Fund cannot be touched and is to be used only for specific cases. It may only finance expenditures in emergency situations, e.g. to remedy the consequences of natural disasters, of states of emergency, or finance new laws, and 'other measures' not foreseen in the state budget (The total amount of such 'expenditures' are not to exceed 20% of the Fund volume). This latter exemption has allowed the Cabinet of Ministers to finance certain measures, which it should not have financed.

The Fund can be financed through two sources: out of the state household and out of income from selling its own physical reserves. The former source is usually under-financed. The fund is often used to solve current



distribution problems and to help during the sowing and harvesting campaigns. Assets belonging to the fund are given out as credits at very low interest rates (compared to commercial bank interest rates), hence the rate of return to the Fund is very low. Such credits are decided upon by the Cabinet of Ministers or the National Security Council. Cases of unauthorised use of funds are claimed to have gone up, mostly in cases connected with the Fuel Ministry, the Ministry of Agriculture and regional administrations. Often Fund resources are used for current expenditures. During the last years, the State Material Fund has developed out of the Strategic Reserve Fund into a source for providing raw materials and foodstuffs for all regions and all industries.¹⁸ According to the Accounting Chamber audit of 01.01.2000, the biggest debtors of the Fund are the Fuel Ministry (for coal, fuel oil, and gas), the Ministry of Agriculture (for food products, fuel oil, diesel oil, sugar, and fuel products), and the Ministry of Industrial Policy (for inventory holdings).

The discussion of the above indirect subsidies and their estimated results for Ukraine are summarised in the following table¹⁹:

Table 5
Ukraine: Approximate subsidy estimates, % of GDP, 1995-2000

Subsidy types	1995	1996	1997	1998	1999	2000
1 Explicit state subsidies	7.8	5.9	7.4	6.4	5.6	4.1
a Subsidies to the economy						
Industry and energy	5.1	3.2	4.2	1.6	1.5	1.3
Construction	N/a	N/a	0.7	1.6	1.2	0.6
Agriculture, forestry and fishery	1.4	1.2	0.7	0.6	0.4	0.5
Transport and communications	N/a	0.0	1.2	1.7	1.6	1.1
Other services related to economic activity	N/a	N/a	0.2	0.1	0.1	0.3
b Expenditures of the Innovation Fund	-	-	-	0.2	0.2	0.0
c Expenditures of the Reserve Fund of the Cabinet of Ministers	-	0.2	0.4	0.3	0.2	0.1
d Replenishment of state reserves	0.7	0.0	0.1	0.1	0.3	0.2
e Loans from the state	0.6	0.0	-0.1	0.3	0.1	-0.1
f Expenditures of the Fund for the Development of Fuel and Energy Sectors	0.1	1.3	-	-	-	-

¹⁸ Business, No. 43 (406), October 23, 2000.

¹⁹ Note: Tax privileges, free economic zones and territories with a special investment climate cause fiscal revenue losses due to preferential taxation (nominal amount), as documented by the State Tax Administration. Concerning the total increase of overdue arrears to the state and to extra-budgetary funds, only tax arrears are presented for 1995 and 1996. For other years the overdue arrears are presented as they appear on the company balance sheets, i.e. on forms 1b for enterprises. Concerning write-offs or restructured tax arrears, they include the following: For 1997: UAH 5.4 bn mostly to agricultural producers. For 1998: To agricultural enterprises, to producers of gas and fuel, and to transport enterprises supplying resources to agriculture. For 1999: To agricultural enterprises, to producers of gas and fuel, to transport enterprises supplying resources to agriculture, to UESU, and to ore-mining and metallurgical enterprises.

**Table 5 (cont.)**

Ukraine: Approximate subsidy estimates, % of GDP, 1995-2000

Subsidy types	1995	1996	1997	1998	1999	2000
2 Tax expenditures	0.8	0.7	28.7	33.1	36.3	26.1
Tax privileges, free economic zones, territories with a special investment climate	-	-	21.3	29.0	31.2	23.2
Total net increase in overdue arrears to the consolidated state household and extra budgetary funds	0.8	0.7	1.6	3.8	4.3	-0.4
Write-offs or restructuring of different kinds of arrears	-	-	5.8	0.3	0.8	3.3
3 Overdue payables, excluding state arrears	17.3	31.8	21.5	6.9	19.2	0.006
Debts for goods, work and services	N/a	N/a	13.1	4.9	13.8	0.0
Wage arrears	N/a	N/a	1.4	0.3	0.1	-1.0
Payables to former SU countries and other countries	N/a	N/a	-0.8	5.2	4.7	0.0
4 Non-monetary transactions	-	1.0	2.1	1.4	3.0	2.1
State household offsets	-	1.0	2.1	1.4	1.1	1.0
Non-cash transactions between the wholesale electricity market and energy distribution companies	N/a	N/a	N/a	N/a	1.9	1.1
5 Banking subsidies						
Interest payments on enterprise debt	1.8	2.1	0.9	0.3	0.9	N/a ²⁰
Overdue payables of enterprises and organisations due to banks	0.4	N/a	N/a	N/a	N/a	N/a

Source: State Treasury of Ukraine; Ministry of Finance of Ukraine; State Statistics Committee of Ukraine; own estimates

As can be seen from the above table, explicit state subsidies to the economy, or to be more exact consolidated state household expenditures, connected with economic activities, have declined during the period of time under consideration - which is a positive trend. But, looking at the volume of implicit subsidies, the state's overall involvement in the economy did not diminish as evidenced by the large participation of the government in the economy.

Thus, implicit subsidies predominate among all subsidies to the economy. Their amount is subject to considerable underestimation. Not all categories of implicit subsidies have been considered in this paper and many data problems persist. During 1995-2000, implicit subsidies in the form of the fiscal losses caused by tax privileges occupy the lion's share of subsidies. Overdue payables for goods, work and services, which faced a dramatic decrease in 2000, can be treated as a kind of indirect input subsidy, which allows to provide inputs at artificially low costs. Implicit subsidies from non-monetary transactions remained stable over the period of time under review.

²⁰ Interest payments on enterprise debt were not calculated for 2000 as a decrease in the overdue payables was observed.



4.3 A more detailed review of implicit subsidies in Ukraine

4.3.1 Implicit subsidies to different sectors of the economy and industries

Implicit subsidies to different sectors of the economy and different industries, their dynamics and structure will be investigated in this chapter.

- *Tax expenditures*

Their quantitative estimation across industries is extremely difficult, even at the aggregate level; hence, a qualitative analysis might be more appropriate. Specific tax privileges may be granted to various activities. This is also true for free economic zones and for territories with a special investment climate.

When we look at the arrears to the state for different sectors of economy, the greatest volume of them is concentrated in industry (see Appendix, Table 6). Though the share of the arrears by agricultural enterprises has gone down, that cannot be explained by an improved performance of the Ukrainian agricultural sector, but rather by the government's practice of writing off their arrears. Large arrears are also characteristic for the transport and construction sectors. Among industries, the largest shares of arrears to the state are concentrated in the energy sector, the fuel industry, machine building, and the food industry (see Appendix, Table 7). There has been a significant growth of energy sector arrears to the state, confirming the hypothesis that the poor payment discipline of enterprises for energy (the receivables of the energy enterprises exceed their payables, excluding state and wage arrears) causes the energy industry to accumulate fiscal arrears. Another remarkable trend is a downward trend in the ferrous metallurgy arrears to the state. This may be explained by write-offs of a part of the fiscal arrears of those enterprises that participated in the 'economic experiment' of metallurgical and ore-mining enterprises, and by the hard budget constraints imposed by the threat to be excluded from the experiment. An analysis of fiscal documents, approved either by parliament or by the government, shows that most tax write-offs concern agricultural and coal-mining enterprises.

- *Overdue payables (including cross-subsidy effects)*

According to the payables criterion, industry - and in particular the energy and fuel sectors, ferrous metals, machine building, agriculture, transport and communications - receives the highest amount of implicit subsidies (see Appendix, Tables 8 and 9).

Examining the volume of total and overdue net arrears between enterprises, excluding wage and general government²¹ arrears, it is possible to define who are the net creditors and the net debtors right across the economy, its sectors, industries, regions and enterprises with different forms of ownership. It is a basic tenet, that payables should equal

²¹ General government includes the consolidated state household, consisting of the central and local households, and extra-budgetary funds.



receivables within a country's economy. The difference between payables and receivables in Ukraine can be attributed 1) to the existence of fiscal, extra-budgetary and wage arrears, and 2) to the fact that payables are valued at full market prices, while receivables are evaluated at cost.

The first step in the estimation procedure is to estimate the following ratio for each year for which data is available:

Receivables - payables between enterprises within the country (excluding payment arrears on wages, to the state and to extra-budgetary funds) / Payables between enterprises.

The next step is to use this ratio to adjust the amount of receivables for all receivables groups. This method, of course, has drawbacks, and the adjustment may be rather rough, since in different sectors of the economy receivables should not be adjusted to payables by the same amount, because the ratio is likely to vary from sector to sector, depending on the peculiarities of that sector. Research shows that agriculture and industry were net debtors, while transport, communications, construction, and material support enterprises were net creditors during 1998 –2000 (see Table 6).

Table 6
Ukraine: Net creditors/debtors across sectors of the economy

Sector of economy: Net creditor/debtor	01.01.97	01.01.98	01.01.99	01.01.00	01.01.01
Industry	Debtor	Debtor	Debtor	Debtor	Debtor
Agriculture	Debtor	Debtor	Debtor	Debtor	Debtor
Transport and communications	Creditor	Creditor	Creditor	Creditor	Debtor
Construction	Creditor	Creditor	Creditor	Creditor	Creditor
Trade and catering	Debtor	Creditor	Debtor	Creditor	Debtor
Material support	Creditor	Creditor	Creditor	Creditor	Debtor
Communal services	N/a	N/a	Creditor	Debtor	Creditor

Source: State Statistics Committee of Ukraine; own estimates

The same calculations were performed for the cross-industry analysis. Our original hypothesis has been confirmed. During 1998-2000, the energy sector and such sub-industries of the fuel sector as fuel extracting and the gas sector turned out to be net creditors. All other industries such as fuel-processing, coal, ferrous and non-ferrous metals, construction materials, light industry, food, chemicals, machine-building and metal working, and the wood industry were found to be net debtors (see Table 7). Regarding the consolidated state household, it can be treated as a net creditor, since its payables are lower than its receivables.



Table 7
Ukraine: Net creditors/debtors across industries

Industries: Net creditor/debtor	01.01.98	01.01.99	01.01.00	01.01.01
Energy	Creditor	Creditor	Creditor	Creditor
Fuel industry	Debtor	Debtor	Creditor	Debtor
Fuel-extracting	Creditor	Creditor	Creditor	Creditor
Fuel-processing	Debtor	Debtor	Debtor	Debtor
Gas industry	Creditor	Creditor	Creditor	Creditor
Coal industry	Debtor	Debtor	Debtor	Debtor
Ferrous metals	Debtor	Debtor	Debtor	Debtor
Non-ferrous metals	Debtor	Debtor	Debtor	Debtor
Construction materials industry	Debtor	Debtor	Debtor	Debtor
Light industry	Debtor	Debtor	Debtor	Debtor
Food industry	Debtor	Debtor	Debtor	Debtor
Chemicals	Debtor	Debtor	Debtor	Debtor
Machine-building and metal working	Debtor	Debtor	Debtor	Debtor
Wood industry	Debtor	Debtor	Debtor	Debtor

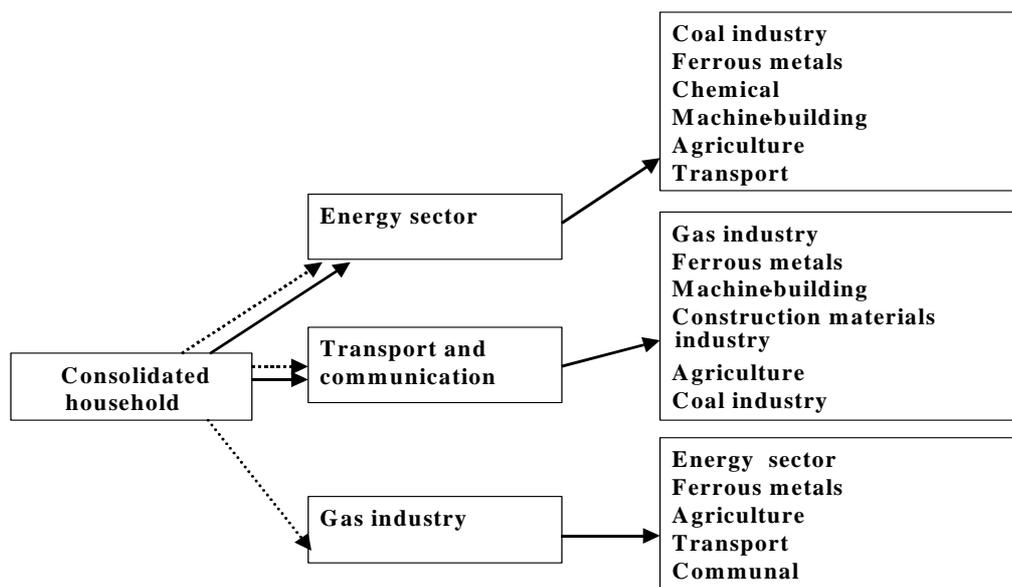
Source: State Statistics Committee of Ukraine; own estimates

To sum up, the energy sector, the gas industry, and transport and communications are the largest net creditors. The largest net debtors are agriculture, the fuel industry, the coal industry, ferrous metals, machine building and metalworking. Because the major intermediate users of products from the energy sector are coal mining, ferrous metals, chemicals, machine building, and agriculture and transport, one could speak of cross-subsidisation of these sectors by the energy sector. Products from the fuel-extracting and gas industries are primarily consumed by the energy sector and by ferrous metals, agriculture, and transport and communications. Therefore, these sectors are subsidised by the fuel extracting and gas industries. Transport and communications services are mostly consumed by the fuel, the ferrous metals, and the machine building and construction materials industries, and by agriculture. The same conclusions as above can be drawn here, too.

Based on the above, the industries most heavily subsidised by other industries are the coal industry, ferrous metals, machine building and agriculture. They are also cross-subsidised by the state, since the energy sector and the transport and gas industries subsidise other sectors in consequence of receiving either direct support or indirect subsidies from the government in the form of fiscal arrears or arrears to extra-budgetary funds, write-offs and mutual settlements. The schematic below describes the phenomenon of cross-subsidisation in greater detail. It is the basis of the theory of the virtual economy (Gaddy, Ickes, 1998).



Schematic Ukraine: Cross-subsidy effect



Note: —> means direct support,> denotes indirect support

To recapitulate, our analysis allows us to assert that the sectors of the Ukrainian economy that receive most direct subsidies are agriculture, construction, the coal industry, the energy sector and transport. The sectors receiving most indirect subsidies are agriculture, energy, ferrous metals, coal mining and machine building. It seems as if the state continues to subsidise those sectors where rent seeking is most prevalent and where interest groups are very powerful. The energy and coal sectors and agriculture are the most problematic at the present moment. A cost-benefit analysis of the ferrous metals industry should be made to find out whether the state and the economy of the country really benefit from the heavy support of this industry receives. The light, wood and food industries grew in 2000, i.e. industries that are more oriented towards the domestic consumer, and operate in a more competitive environment. These facts cast doubt on the necessity to support the above-mentioned sectors of the economy and the efficacy of continuing government support.

4.3.2 An analysis based on the type of ownership

State and collective enterprises receive most direct and indirect state support in Ukraine. The majority of state enterprises is concentrated in the energy sector and the fuel industry, in particular the coal industry. The government directly or indirectly tolerates payment delays by state monopolies for the delivery and supply of goods, such as petroleum products, coal, electricity and heating. In that way the government bails out loss-makers instead of resorting to stabilisation measures such as privatisation, liquidation, etc. Most enterprises in the fuel extracting and fuel-processing industries, in ferrous and non-ferrous metals, chemicals, machine building, the wood industry, communications, etc are collective



enterprises. Collective, and to a much lesser extent private enterprises also appear to receive indirect subsidies in the form of the trade credits.

An analysis of payables according to the type of the ownership is limited by data constraints. For 1997-1998 the data distinguishes only between state and non-state enterprises, which does not allow differentiating between private and collective enterprises. For 1999-2000 there is a more detailed classification, i.e. subdivisions exist for private, collective and state (all-state and communal) ownership. The majority of enterprise debt - whether total, fiscal or extra-budgetary fund debt - is concentrated in collective and state enterprises.

Our estimation results concerning the form of ownership demonstrate that state enterprises are net creditors, while collective and private enterprises are net debtors. This trend became even more pronounced in 2000 when the net arrears of state enterprises increased enormously. That may not be surprising, as the state proves to be an ineffective owner, and managers of state enterprises may not care much about the assets under their control and about increasing the level of debt. After all, the state readily provides bailouts in the form of direct and indirect financial support that allows them to continue functioning.

Unfortunately, the free economic zones and territories with special investment climate allow any kind of enterprise to take advantage of their privileges. The preferential rates of taxation applicable in the zones and territories could play a very important role in developing private businesses, but these opportunities have not been exploited extensively. No significant private business activity increase has occurred in any of the regions.

4.3.3 Regional aspects of the implicit subsidies

Regional peculiarities are an important factor in the distribution of the subsidies across regions. The political, social and economic peculiarities of the regions are decisive here. The Donetska and Zakarpatska oblasts and the Crimea, which seem to receive the largest amounts of subsidies, belong to the most important regions for preserving Ukrainian stability, both political and economic (see Appendix, Table 10). The Zakarpatska oblast is the poorest region of Ukraine. The support for the Crimea is mainly politically motivated. The Donetska oblast is one of the most industrially developed and densely populated regions of Ukraine. The city of Kyiv is the largest creditor of the other regions of Ukraine and the biggest debtor to the state. The free economic zones and territories with special investment climates are politically influenced and are instruments of regional policy. It cannot be demonstrated that other regions of Ukraine are in a better situation and require less support than the heavily subsidised regions. Thus, there is redistribution of resources not only across enterprises and industries but across regions as well.



5 Policy implications

Though the structure of the consolidated state household expenditures testifies to the fact that the government has set policy priorities, with social expenditures occupying a noticeable part in the budget structure, the influence of the government on the general economy continues to be large. This is due in particular to the wide spread existence of indirect subsidies, in which the government plays a major role.

The scope of state subsidies to Ukrainian enterprises continues to be large. Though the amount of direct subsidies decreases, the percentage of the indirect ones increases. A positive tendency towards reducing total subsidies to the economy can be observed, which may be consistent with the reduced role of government required by being a market economy, where private enterprises perform economic activities, and government is responsible for the delivery of public goods and services.

The existence of implicit subsidies has implications both at the micro and the macro levels. Implicit subsidies may well be an indicator of the absence of serious structural reforms at the enterprise level, where soft budget constraints continue to exist, for example. Subsidies are a way of keeping troubled economic sectors or inefficient enterprises afloat and delaying progress toward their restructuring and actual growth.

Except for their direct economic consequences, implicit subsidies have:

- 1) Fiscal implications: A reduction of implicit tax subsidies could increase government revenues by broadening the tax base, help the government to better perform its major function, namely providing public goods and services, and add to fiscal transparency. Implicit subsidies in the form of tax privileges or tax arrears should become explicit in the state household documents and be presented in specific documents or reports. This would help to more clearly define the government's financial position and would reduce the non-transparency of the government's fiscal documentation. It is also important for Ukrainian policymakers to adopt a tax system that reduces tax evasion to a minimum, decreases the tax burden, broadens the tax base and stimulates tax payments.
- 2) Ecological implications: For example, the state support for the steel industry, one of the worst industrial polluters in the country.
- 3) Political implications: A rent-seeking behaviour becomes dominant whenever implicit subsidies are granted or obtained. Such subsidies, the major volume of which are given to the energy sector, to ferrous metals and to agriculture, benefit the most powerful interest groups in society.
- 4) Social implications: To a certain extent, implicit subsidies are justified by social considerations. A reduction in the amount of direct or indirect subsidies may entail the closing down of a number of enterprises, and thus cause an increase in unemployment, which, in turn, may require retraining of people and moving them from one area of Ukraine to another. Subsidised sectors are characterised by high levels of employment. Taking into account Ukraine's slow development of the private sector that could employ laid off state workers, and its lack of



experience and funds for organising special retraining programs, the state has an obligation to somehow support failing industries and provide subsistence to their workers. Bankruptcy would have produced redundancies in the workforce and led to rampant unemployment, which is a costly experience from a political point of view.

Non-monetary transactions and overdue payables in Ukraine remain a persistent problem. Not only enterprises are involved in them but the government itself, which sets a very bad example. The government's lack of commitment to a policy of non-monetary transactions continues to be very harmful. The practice of mutual settlements between state-owned organisations and their suppliers should be abolished.

Structural and institutional changes are needed to get out of the present situation. Good institutions such as a fair tax system and good budgetary rules ought to be developed. A tax reform based on reducing the tax rates must be accompanied by the abolishment of the numerous existing tax privileges. Because of their evident negative effects, most direct and implicit subsidies should be reduced as a matter of government policy. The government should also review the effectiveness and reasonableness of all of its existing expenditures to the economy, and try to achieve greater transparency. As more fiscal resources are allocated to the social sector, the necessity for preferential taxation for social reasons should decrease.

By instituting different types of subsidies, the government may benefit in the short run, for instance, by reducing social tension (e.g. in the coal industry) and achieving artificial economic growth (e.g. the growth of ferrous metals industry in 2000, which in turn contributed to real GDP growth). But this policy will not lay the groundwork for long run sustainable economic growth of the country, nor for improving the living standards of the Ukrainian people. It is essential to point out and to stress the necessity for the government to stop this practice. For that reason, it is necessary to get rid of the causes that allowed implicit subsidies to come about and that fostered their expansion.

One further direction for the research agenda in this field could be to look more closely at the efficiency of government subsidies, or to concentrate in greater detail on a particular case, in order to more thoroughly define the economic and welfare implications of subsidies.

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Appendices

Table 1
Ukraine: Privileged taxation, 1997-2000

	1997	1998	1999	2000
Total fiscal losses from granting tax privileges, m UAH	19715.4	29783.2	39693.5	40637.8
Central household losses from granting tax privileges, m UAH	14620.2	25180.5	35687.2	38291.6
Local household losses from granting tax privileges, m UAH	5095.2	4602.6	4006.3	2346.2
Number of privileged tax payers, '000	116222	115966	122669	211264
Number of tax privileges received, '000	234953	199555	187875	292590
Consolidated state revenues, m UAH	28118.2	28915.8	32680.9	48443.7
Nominal GDP, m UAH	92484	102593	127126	175000*
Total fiscal losses as a % of consolidated state revenues	70	103	121	84
Total fiscal losses as a % of nominal GDP	21	29	31	23

* preliminary figure

Source: State Tax Administration; reports of the State Treasury of Ukraine

Table 2
Ukraine: Total payables, % of GDP, 1996-2000

	1996	1997	1998	1999	2000
1. Between enterprises	52	32	34	46	22
2. To FSU countries	-1	0	3	7	1
3. To other countries	2	1	7	6	0
Total	54	33	45	60	23

Source: State Statistics Committee of Ukraine: Form 1b of enterprises

Table 3
Ukraine: Percentage of overdue payables in total payables, 1997-2000

Percentage of overdue payables in total payables	01.01.97	01.01.98	01.01.99	01.01.00	01.01.01
1. Between enterprises	75	75	59	54	44
2. To FSU countries	64	57	61	59	59
3. To other countries	65	19	36	24	18
Total	74	71	58	52	43

Source: State Statistics Committee of Ukraine: Form 1b of enterprises



Table 4
Ukraine: Overdue payables, % of GDP, 1997-2000

	1997	1998	1999	2000
1. Between enterprises	23.9	4.6	18.8	-1.4
Goods, work and services	13.1	4.9	13.8	0.0
Bills of exchange	0.3	0.8	0.4	-0.3
Wages	1.4	0.3	0.1	-0.6
Tax payments	-	-	0.5	-
State revenues	2.1	2.3	3.5	0.4
Extra-budgetary	-0.5	0.7	0.3	-
2. To FSU countries	0	1.9	4.3	0.8
3. To other countries	-0.8	3.3	0.4	-0.6
Total	23.1	9.8	23.5	-1.2
Nominal GDP	92484	102593	127126	175000

Source: State Statistics Committee of Ukraine: Form 1b of enterprises

Table 5
Ukraine: Changes in overall liabilities to employees, % of GDP, 1997-2000

	1997	1998	1999	2000
Wage arrears	1.6	1.2	0.4	-0.2
Overdue wage arrears	1.4	0.3	0.1	-0.6

Source: State Statistics Committee of Ukraine: Form 1b of enterprises

Table 6
Ukraine: Overdue fiscal arrears by sector of the economy, 1998-2000

	Industry	Agriculture	Transport & Communication	Construction	Trade and catering	Material and technical provisions	Others
01.01.98	48.2	22.9	11.9	8.6	1.5	0.5	6.4
01.01.99	56.9	14.8	15.0	7.2	0.5	0.7	4.9
01.01.00	55.6	7.8	9.1	5.7	0.4	0.5	20.8
01.01.01	61.0	5.1	4.8	6.3	0.5	0.7	21.6

Source: State Statistics Committee of Ukraine: Form 1b of enterprises



Table 7
Ukraine: Overdue fiscal arrears by industry, 1998-2000

	01.01.98	01.01.99	01.01.00	01.01.01
Energy	9.5	15.2	26.5	26.5
Fuel industry	25.4	21.9	28.2	30.8
Ferrous metals	16.5	19.6	3.5	2.6
Non-ferrous metals	0.7	0.7	0.6	0.2
Chemicals and fuel-chemicals	5.8	5.6	5.8	5.9
Machine building and metal manufacturing	22.1	19.7	18.2	15.8
Wood and paper industry	1.5	1.2	1.3	1.2
Building materials industry	4.1	3.2	3.7	3.6
Light industry	2.4	1.9	1.8	2.0
Food industry	8.5	7.9	7.3	8.4
Other industries	2.4	2.4	2.7	3.0

Source: State Statistics Committee of Ukraine: Form 1b of enterprises. It should be noted that the overdue payables are presented cumulatively.

Table 8
Ukraine: Overdue payables across different sectors of the economy, 1997-2000

	01.01.97	01.01.98	01.01.99	01.01.00	01.01.01
Industry	49	46	50	49	44
Agriculture	10	12	11	8	7
Transport and communications	11	14	14	11	10
Construction	6	6	5	4	4
Trade and catering	9	5	3	3	10
Material and technical provision	2	2	1	1	1
Others	13	14	15	24	23

Source: State Statistics Committee: Form 1b of enterprises

Table 9
Ukraine: Overdue payables across different industries, 1998-2000

	01.01.98	01.01.99	01.01.00	01.01.01
Energy	23	24	34	36
Fuel industry	19	17	16	22
Ferrous metals	19	20	11	11
Non-ferrous metals	1	1	1	1
Chemicals and fuel-chemicals	6	5	4	5
Machine building and metal manufacturing	15	12	11	12
Wood and paper industry	1	1	1	1
Building materials industry	3	2	2	3
Light industry	1	1	1	1
Food industry	8	6	5	6

Source: State Statistics Committee of Ukraine: Form 1b of enterprises

Table 10
Ukraine: Regional aspect of the distribution of subsidies

Oblasts	Investment attractiveness for 1999 ²²	Free economic zone	Territories with special investment climates	Share of total payables as of 01.01.00	Share of overdue payables as of 01.01.00	Share in industrial production, 1999	Net creditor or net debtor as of 01.01.99	Tax liabilities as of 01.12.99, m UAH	Share of barter in products sold in 1999, %
Crimea, including Sevastopol	'persecutor'	Syvash, Port-Krym	SIT	1.4	1.4	2.1	debtor	428.7	35.3
Vinnyska	'outsider'			1.2	1.3	2.0	debtor	260.2	31.4
Volynska	'basic'	SEZ Interport Kovel	Volynska oblast	0.7	0.6	0.6	debtor	100.8	32.7
Dnipropetrovska	'leader'			11.2	8.9	16.4	debtor	2090.8	39.3
Donetska	'leader'	Donetsk, Azov	SIT	13.0	11.7	19.7	debtor	2122.7	28.3
Zhytomyrska	'outsider'		SIT	0.7	0.9	1.3	debtor	163.2	42.6
Zakarpatska	'basic'	SEZ Zakarpattya	SIT in Zakarpatska oblast	0.4	0.4	0.5	debtor	58.4	15.9
Zaporizhska	'persecutor'			4.5	5.3	8.7	debtor	1493.9	32.4
Ivano-Frankivska	'basic'			1.1	1.1	1.7	creditor	263.8	36.9
Kyivska	'persecutor'	Slavutych		2.3	2.6	3.2	debtor	476.6	44.5
Kirovogradska	'outsider'			1.3	1.9	0.9	debtor	272.5	31.1
Luganska	'basic'		SIT	5.0	6.2	6.5	debtor	1114.0	44.8
Lvivska	'leader'	FEZs Tryskavets, Yavoriv		3.2	3.4	3.0	debtor	636.7	29.1
Mykolayivska	'basic'	Mykolayiv		1.6	2.1	2.1	debtor	390.2	19.1
Odeska	'leader'	Porto-Franko, Reni		2.0	1.7	2.5	debtor	248.4	15.8
Poltavska	'persecutor'			1.8	1.7	5.1	debtor	395.8	29.7
Rivnenska	'basic'			1.2	1.3	1.7	debtor	537.8	50.4
Sumska	'outsider'		SIT in Shostka	1.9	1.5	2.6	debtor	259.8	42.3
Ternopil'ska	'outsider'			0.7	0.9	0.6	debtor	167.2	41.3
Kharkiv'ska	'leader'		SIT in Kharkiv	3.9	3.9	6.5	debtor	661.0	31.5
Kherson'ska	'basic'			1.2	1.1	0.9	debtor	230.4	45.4
Khmelnyska	'outsider'			1.1	1.4	1.7	debtor	342.5	51.2
Cherkaska	'outsider'			1.1	1.1	1.9	creditor	230.5	18.6
Chernivetska	'basic'			0.4	0.3	0.5	debtor	73.3	30.2
Chernihiv'ska	'basic'		SIT	0.7	0.9	1.5	debtor	112.7	30.8
City of Kyiv	'leader'			36.4	36.4	5.8	creditor	5349.6	8.6

Source: Various laws of Ukraine, enactments of the Cabinet of Ministers, decrees by the President of Ukraine, State Statistics Committee of Ukraine, Rating of Investment Attractiveness of Ukraine's regions in 1999, conducted by the Institute of Reforms.

²² The Institute of Reforms conducts investigations on the investment climate in the various Ukrainian regions, constructing the Investment Attractiveness Composite Ranking for 24 oblasts, the Autonomous Republic of Crimea and the City of Kyiv.