Ukraine and the World Economy:

Risk Assessment and Policy Recommendations

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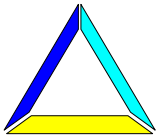
INSTITUTE FOR ECONOMIC RESEARCH AND POLICY CONSULTING



GERMAN ADVISORY GROUP ON ECONOMIC REFORMS WITH THE UKRAINIAN GOVERNMENT

Abbreviations

CA	Current Account
CIF	Cost, Insurance and Freight
EBRD	European Bank for Reconstruction and Development
EFF	Extended Fund Facility
EIA	Energy Information Administration
EU	European Union
FDI	Foreign direct investment
FOB	Free on Board
GDP	Gross domestic product
IEA	International Energy Agency
IFIs	International Financial Institutions
IFS	International Financial Statistics
IMF	International Monetary Fund
MEU	Ministry of Economy and European Integration of Ukraine
NBP	National Bank of Poland
NBU	National Bank of Ukraine
NERC	National Electricity Regulation Commission
OECD	Organisation for Economic Co-operation and Development
SCCI	State Committee on Communications and Informatisation
SSCU	State Statistics Committee of Ukraine
UAH	Ukrainian hryvnia
UEPLAC	Ukrainian-European Policy and Legal Advice Centre
USD	US dollar
VAT	Value-added tax
WTO	World Trade Organisation

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Ukraine and the World Economy: Risk Assessment and Policy Recommendations

1 Introduction

This book deals with the economic relationship between Ukraine and the rest of the world. The timing of this book is not a coincidence. For the last two years, Ukraine has enjoyed external stability, combining a trade surplus, a strong hryvnia, a reduction of its foreign debt and an increase in its international reserves. Ukrainian policy should be proud of this economic success, which has been widely recognised both domestically and abroad. But the present optimism involves the danger that the current stability is taken for granted and that existing risks are not taken seriously enough. That is why we want to emphasize these risks now, before it is too late.

The economic relationship with foreign countries can be analysed by comparing its advantages (economic benefits) and disadvantages (economic costs). The **benefits** are clear and well understood. First of all, foreign trade improves the allocation of resources. It allows Ukraine to specialise in the production of those goods for which it is best suited. In many cases, specialisation leads to large economies of scale. By exporting these goods, it is able to import other goods, which would be more expensive to produce at home than abroad. This includes importing capital goods, which incorporate the latest technology available. As a result of such trade, Ukraine can significantly increase its production and income.

Substantial benefits for the economy are also created by international capital flows. The inflow of foreign direct investments in particular contributes to capital accumulation in Ukraine and brings to the country individuals with valuable managerial and organisational skills.

The economic relationship with foreign countries does, however, also involve **costs** in terms of instability. In particular, sudden changes in the external demand for Ukrainian goods can hurt the economy. Furthermore, sudden and unexpected outflows of capital can destabilise the economy, as was experienced by several countries during recent years, such as South Korea, Russia and Argentina, to name only a few. Ukraine also experienced a painful currency crisis in 1998.

Empirical evidence as well as theoretical arguments clearly show that the benefits of this economic relationship between Ukraine and the rest of the world by far outweigh its costs. As a result of foreign trade and capital flows, Ukraine becomes a richer nation and the economic wellbeing of its population increases. Thus, a major long-term goal of Ukrainian policy should be to reduce potential costs to a low and affordable level, without jeopardising the benefits. Once this long-term goal is accepted as a centrepiece of Ukrainian economic policy, the need for a consistent strategy to achieve this goal arises. This book presents such a strategy.

In contrast to protectionist approaches, we propose a strategy that aims at stability without sacrificing the benefits of international trade and capital movements: a strategy for ensuring external stability *in an open economy*. Furthermore, our recommendations cover both macroeconomic and structural issues, because concentrating only on one side would be insufficient and would not deliver good policy results. International experience is taken into account in these recommendations, without neglecting the characteristics of the present Ukrainian economy.

The "classical" causes for currency crises and external instability, namely excessive expansionary fiscal policies and inflationary monetary policies, are not discussed in this book. The reason for this decision is quite simple: there is not much to say about it. One can only repeat what everyone by now should know, not least from Ukraine's own experience: a lack of fiscal or monetary discipline would destabilise the whole economy and throw Ukraine many years back in terms of economic development.

The adoption of a consistent strategy for ensuring external stabiliy is also important in the context of international trade negotiations. The outcome of the new WTO round, which is expected to focus among other topics on agricultural trade, will be of crucial importance for Ukraine. Also the process of enlargement of the European Union will have major effects on Ukraine's economy. Ukraine should try to have a positive influence on both. To this end, it must show its partners that it has a consistent strategy for dealing with external economic matters. If it fails to do so, Ukraine's voice might not be heard.

In the following chapter we lay the conceptual basis for the book and outline the proposed strategy, which consists of three parts. Each part is explained in a separate chapter (3, 4 and 5). The book ends with a summary of the main policy proposals (Chapter 6).

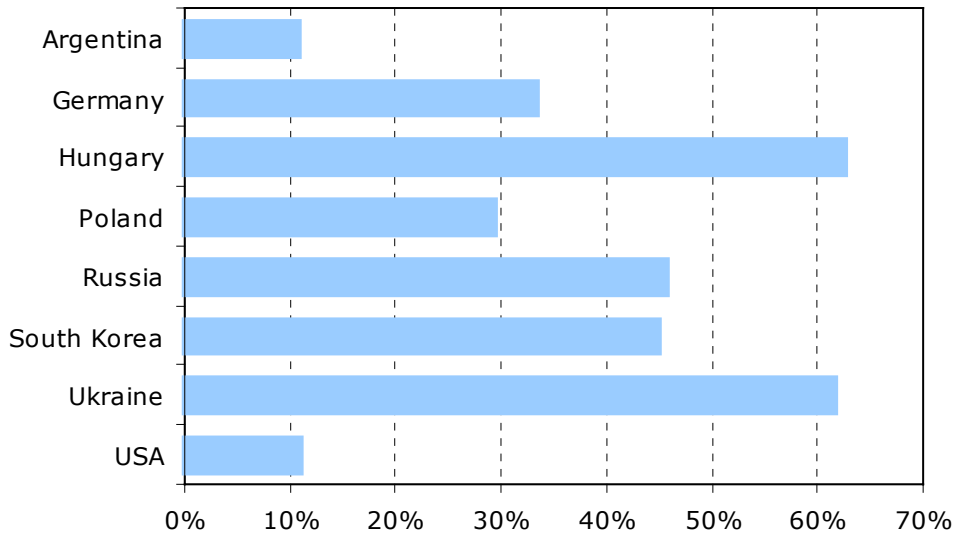
2 A strategy for ensuring external stability in an open economy

2.1 Negative shocks within the balance of payments

The balance of payments registers the economic transactions between Ukraine and the rest of the world for a certain period of time, such as one quarter or one year. Thus, the balance of payments is the starting point for the quantitative analysis of Ukraine's foreign economic relationship. The importance of this relationship can be highlighted by the considerable exports-to-GDP ratio of Ukraine relative to other countries (Graph 2.1).

As was stated in the introduction (Chapter 1), our aim is to ensure external stability in an open economy. Within the framework of the balance of payments, a destabilisation originates from a sudden, significant negative change in one position of the balance of payments, which is not accompanied by a parallel positive change in another position.

Graph 2.1
Exports-to-GDP ratio of selected countries (2000)



Source: IMF; NBP; NBU

We define such change as a *negative shock*. Examples of negative shocks are a sudden decline in export revenues, an increase in import expenditures or an unexpected increase in net capital outflows. In terms of the foreign exchange market, which is tightly linked to the balance of

payments[1], a negative shock involves a sharp increase in net demand for foreign currency.

Negative shocks can affect the current account (decreasing exports, increasing imports, increasing net interest payments to non-residents) or the capital and financial account (increasing net capital outflows). These shocks can be caused by both inappropriate domestic policy or developments abroad.[2]

2.2 The three stages in the transmission mechanism of negative shocks

The occurrence of a negative shock marks the start of a complex process of destabilisation of the economy. Over time, the shock spreads through the whole economy, influencing almost all economic variables, such as income and production, inflation, income distribution, exchange rate, trade flows, bank performance, and public finances. Due to the complexity of this process, it cannot be analysed in its totality. Thus, it is necessary to focus on the main effects of negative shocks. For this purpose, we distinguish three successive stages of this process (Graph 2.2).

Graph 2.2
Transmission mechanism of negative shocks

First stage	→	Second stage	→	Third stage
Negative shock and pressure on the hryvnia		Sudden devaluation of the hryvnia		Banking crisis and fiscal deficit

First stage: negative shock and pressure on the hryvnia

A negative shock, such as an increase in import expenditures, implies a rise in the net demand for foreign currency.[3] Importers have to pay their bills and to do so, they need more foreign currency than before. As a consequence, an imbalance (excess demand) arises on the foreign

1 It should be remembered that exports of goods and services and capital imports imply a supply of foreign currency. Imports of goods and services and capital exports lead to a demand for foreign currency. The existence of barter reduces the volume of transactions at the foreign exchange market, but it does not affect the net demand for foreign currency or the exchange rate.

2 *Positive* shocks within the balance of payments can also pose problems for the economy. These kinds of medium-term problems are covered by the concept of the "Dutch disease". In this book, we decided to focus only on the effects of negative shocks on the Ukrainian economy.

3 The "net demand for foreign currency" does not include the possible net demand of the central bank.

exchange market[4] and the external value of the hryvnia comes under pressure.[5]

Second stage: sudden devaluation of the hryvnia

The central bank can employ several measures to reduce the pressure on the external value of the hryvnia. It can sell US dollars using its international reserves, it can raise interest rates to make hryvnia deposits more attractive to domestic and foreign investors, or it can introduce restrictions on the foreign exchange market, to increase the supply or decrease the demand for US dollars.

If the central bank decides not to alleviate the pressure on the exchange rate, a devaluation of the hryvnia relative to major international currencies will take place.

Third stage: banking crisis and fiscal deficit

A high proportion of debt contracts in Ukraine are denominated in foreign currency. Due to this "financial dollarisation", a sudden and sizeable devaluation of the hryvnia would undermine the ability of both private and public debtors to service their debts. Thus, a sudden devaluation could have two major negative effects on the Ukrainian economy: it could lead to a banking crisis and could also put heavy pressure on public finance.

2.3 A three-part strategy for ensuring external stability in Ukraine

The aim of our strategy is to prevent the destabilisation of the economy described above, which starts with a negative shock and ends with a banking crisis and large public deficits. In order to achieve this aim, we propose three independent sets of measures:

- measures to prevent negative shocks;
- measures to prevent a sudden devaluation following a negative shock;
- measures to reduce the negative effects of a sudden devaluation.

Thus, the basic idea of this strategy is to look at each stage of the transmission mechanism separately. Three sets of proposals will be put forward, each of them targeting only one stage in the transmission mechanism of negative shocks. Consequently, our strategy is made up of three complementary parts.

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4 In this depiction of the transmission mechanism, negative shocks and an imbalance in the foreign exchange market are seen as twin events.

5 If the negative shock takes place within the current account, then the current account worsens. This can lead to a decrease in production and income.

First part of the strategy: prevention of negative shocks

The first and most obvious component consists in tackling the problem at its root and preventing the first stage from happening. Thus, negative shocks should be prevented. For this purpose, the major sources of risks within the balance of payments have to be identified and concrete proposals have to be elaborated in order to reduce the likelihood of these risks materialising. The first part of the strategy will be presented in Chapter 3. We identify metallurgical exports, exports from the agri-food sector, energy imports, foreign direct investment and holdings of foreign cash by Ukrainian residents as the five areas in which potential negative shocks are most likely to occur in the medium term.

Trying to prevent negative shocks is of crucial importance, but this measure alone cannot ensure external stability. Some of the potential negative shocks identified here might occur even if adequate steps towards prevention were taken. Furthermore, other negative shocks might take place that cannot be foreseen. Thus, further measures should be taken for the eventuality of a negative shock.

Second part of the strategy: prevention of a sudden devaluation

The second part of the strategy is directed exclusively at the second stage of the transmission mechanism of negative shocks in the balance of payments. The central bank should not always try to avoid a devaluation of its currency. However, in many cases, and especially in the case of a temporary negative shock, central bank action does make sense. Such actions are only possible if the monetary authorities have the appropriate instruments to act. Chapter 4 begins with an evaluation of the state of potential instruments of the National Bank of Ukraine, such as international reserves, interest rate policy and foreign exchange restrictions. Later on, recommendations are put forward in order to strengthen the capability of the National Bank to avoid a sharp and sudden devaluation of the hryvnia.

Third part of the strategy: reduction of negative effects of a sudden devaluation

The third and final part of the strategy focuses on the last stage of the transmission mechanism of negative shocks. US dollar and to a smaller extent other foreign currencies are widely used in both private and public debt contracts. This characteristic of the Ukrainian economy makes it highly vulnerable to a devaluation. In particular, a banking crisis as well as significant fiscal problems could arise as a consequence of a substantial loss in the external value of the hryvnia. Chapter 5 contains recommendations concerning the financial de-dollarisation of the Ukrainian economy and the promotion of the use of hryvnia for the denomination of debt contracts.

3 First part of the strategy: prevention of negative shocks

The first part of the strategy intends to prevent negative shocks. For this purpose, we identified five positions within the balance of payments, which are likely to suffer major negative changes in the middle term. Within the current account, three risky positions have been identified: a drop in metallurgical exports, a decrease in exports from the agri-food sector and an increase in energy imports. Within the capital and financial account, two potentially dangerous positions were identified: a decrease in net foreign direct investment (FDI) and an increase in net demand for foreign cash by Ukrainian residents. For the identification of risky positions, we checked all positions of the balance of payments for two criteria, namely quantitative importance and potential volatility.

The following subchapters (3.1-3.5) deal with the five positions identified in the balance of payments and share a common structure. First, to explain the logic behind each choice of position, its quantitative importance is shown. Second, the major sources of risks for a negative shock within the chosen position are identified. Third, policy recommendations for how to tackle the identified risks are put forward.

3.1 The risk of lower metallurgical exports

3.1.1 Quantitative importance of ferrous metallurgy

With steel production of about 33 m t, Ukraine occupies the 7th place among the largest steel producers in the world. Ferrous metallurgy[6] was the first branch of Ukrainian industry to regain growth after the start of the transition process. Steel production has grown continuously since 1995. After the record growth of 21% in metallurgy and metal processing in 2000, the growth rate was 5% in 2001.

The share of the steel industry production in total industrial gross production increased from 11% in 1990 to 27.4% in 2000. However, these figures, often used in the press, overestimate the importance of metallurgy for the economy. The data on value added are more informative; they better reflect the contribution made to the income and welfare of the economy. Using this measure, metallurgy's share in industry was slightly more than 11% in 2000, while only 5% of GDP is created in the steel industry. From this one might estimate that in 2000 metallurgy accounted for about one percentage point of GDP growth. However, in 2001 only

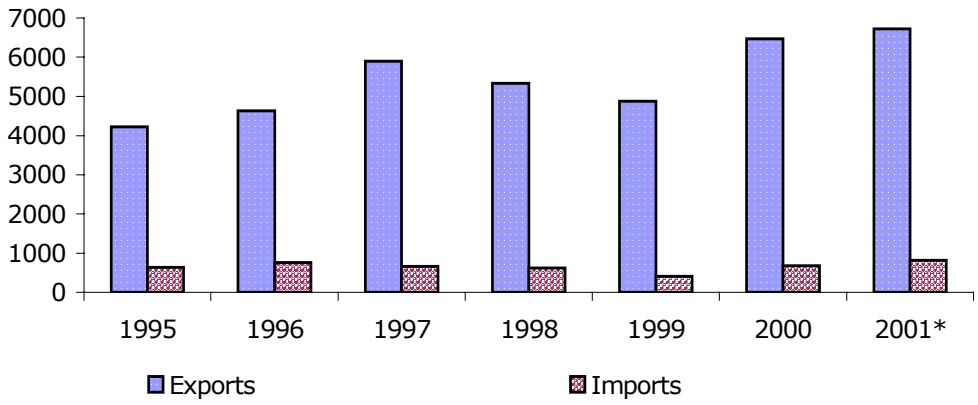
[6] The classification of industrial branches changed in 2000, therefore, the figures might not always be comparable. The new classification for metallurgy and metalworking is broader than the former category of ferrous metallurgy. In this paper we use the terms metallurgy and steel industry interchangeably.

about 0.25 percentage points of GDP growth can be attributed to the steel and iron production.

More than 60% of total production was exported in recent years. Ukraine is the 4th biggest steel exporter in the world after Japan, Russia, and Germany. About 40% of total export earnings (over USD 6 bn) are generated in the metallurgy sector. However, the net contribution of the steel industry to Ukrainian foreign earnings is somewhat lower. Although the import of ferrous metals amounts to only 5% of domestic production, the branch needs imports for production, in particular energy. About 30% of production costs has to be spent on energy inputs, which have to be partly imported.

Although the trend direction for ferrous metal exports in the last 5 years was clearly upward, there was a significant volatility in the exports (see Graph 3.1). Export earnings in the past changed by as much as USD 500 m to USD 1 bn from year to year.

Graph 3.1
Exports and imports of Ukrainian ferrous and non-ferrous metallurgy, USD m



Source: NBU; *SSCU

About 428 thousand people were employed in ferrous metallurgy in 2000, of which 220 thousand worked in steel production. In contrast to most other branches, employment in the steel industry has increased since 1995. The production and, thus, the employment is highly concentrated in few regions, which makes the issue of layoffs complicated. In several towns, the steel industry is by far the biggest employer and taxpayer. Thus, any changes will meet strong resistance on the part of the population as well as local government. In addition, metallurgy is an important consumer for the troubled coal industry. A noticeable shedding of labour or a reorientation towards different (foreign) suppliers would directly affect the mining industry. This intensifies the problems surrounding the reorganisation and the restructuring of ferrous metallurgy.

For this reason, both local and central government will carefully watch any developments in this industry. Moreover, the state still holds significant shares in metallurgical enterprises. In the past the government used various channels to influence the business plans and day-to-day operations of the steel producers, reducing the intensity of competition in the

industry. Up until now none of the big producers has had to exit the market, as it was the case in Europe and the US in the last decade. A strong political lobby from the Ukrainian steel industry's heartland has considerable power in parliament.

3.1.2 Sources of risk

Despite the better than average performance of metallurgy in the last couple of years compared to the industry as a whole, the question remains as to whether this development is sustainable. To assess its sustainability, both internal and external risks should be considered.

Internal risks

Many facts raise doubts on the ability of financial results for the industry to truly reflect the economic value of the developments in the Ukrainian economy. It is in particular puzzling how an industry, which according to many economic indicators is lagging far behind its international competitors, can be a successful exporter and producer. Notwithstanding its quantitative importance for the Ukrainian economy as outlined above, the final answer on the industry's value depends on its contribution to value-added after corrections have been made for all types of distortions (subsidies). Such major internal factors as industry technology, costs and profitability and subsidisation will be further discussed in order to reveal the internal risks for the industry's production and exports growth.

Outdated technology

While in the West the production of raw steel by open-hearth furnace had been completely abolished by the end of the 1980's, this production method still holds a share of 50% in Ukraine (see Table 3.1).

Table 3.1
Share of production technologies in total steel/rolled steel production, %

	1990	1995	1997	1999	2000	2001
Oxygen furnace	40.5	42.6	47.6	47.4	46.2	47.5
Electric arc furnace	6.8	5.8	4.7	4.0	4.1	3.6
Open hearth	52.7	51.6	47.7	48.2	49.4	49.0
Continuous casting*	7.8	n.a.	19.8	19.5	n.a.	n.a.

Source: own estimations based on Statistical Yearbook (2000, pp. 110, 463);
* Petrakova, T. and O. Yuzov (2000): Suverennaya stal, proizvodstvo, potrebleniye metalloproduktsii v stranah SNG. Metal, No.6.

Even developing countries like China phased out this production method in recent years. Moreover, the share in production of the outmoded open-hearth method in Ukraine's total raw steel production barely decreased over the years. Although the use of other modern production methods like continuous casting have gained a little since 1990, its application still lags far behind the world practice, in which this energy saving mode is used in more than 80% of cases. Even the CIS countries have an almost twice as

high share than that of Ukraine. Besides, in recent years, the average age of the capital stock in use has further increased. At the end of 1999, the depreciation rate of the existing total capital stock for ferrous metallurgy was 57% and 63% for machinery and equipment.

Due to the use of old technologies and decaying capital stock, production is extremely energy intensive. The direct costs of electricity in ferrous metallurgy increased in the last five years by 28%, mostly due to the increases in tariffs. The direct costs of all types of energy, however, declined by 7% during the 1996–1999 period. But in comparison to the advances of energy saving in international steel production, the Ukrainian reduction is still small.

Costs and profitability

Ukraine can rely on a strong raw material basis of iron ore and coal. In addition, labour is very cheap compared to that used by its industrialised competitors; wages amount only to 6.3% of total costs in metallurgy. But there are also several indications of low efficiency in the sector.

From an international perspective, labour productivity in the Ukrainian steel industry is extremely low. For example, Brazil with an almost identical steel output as Ukraine employs only about one-third of the Ukrainian workforce in this sector. The labour productivity in Ukraine as measured by the amount of crude steel produced per worker is about one-fourth of the labour productivity in the EU.

There is some confusion on the capacity utilisation in the steel industry, because of different data on existing capacities. On the basis of a production-possibility frontier for 1996–1998, we estimated an average capacity utilisation of 67% for the 60 largest enterprises of ferrous metallurgy. The State Statistics Committee reported a capacity utilisation of about 65% for crude steel in 1999.[7]

But even according to the Ministry of Industrial Policy, which reports a higher utilisation of 66–80%, the usage of capacity is below the optimal level, which is about 80%. Thus, it is very likely that the Ukrainian metallurgy could only partially recover its fixed costs at the current production level. A distinctive feature of Ukrainian metallurgy seems to be that it works on the downward sloping part of the average cost curve. This means, on the one hand, that any increase in output, e.g., due to favourable demand, leads to declining unit costs and, thus, to higher competitiveness. On the other hand, reductions in production are associated with increasing average costs and a lower profitability.

This is due to high fixed costs, which largely consist of energy, because furnaces have to be heated continuously and largely independently from production. Due to this scale effect, an expanding output with decreasing consumption of energy per ton of steel can be observed in the second half of the 1990s. The exact magnitude of this non-linearity cannot be assessed given the lack of data. However, a glance at the data on pipe production

[7] The lowest capacity utilisation rate among steel and iron industry products is observed in the tubes industry - about 21% in 1999.

clearly shows the effect of high fixed energy costs. Consumption of energy per unit is inversely correlated with total output (see Table 3.2).

Table 3.2
Total production of steel tubes and energy consumption per unit of output

	1996	1998	1999	2000
Production, m t	2.0	1.5	1.2	1.7
Consumption of equivalent fuel, kg	158.6	200.0	217.9	172.3
Consumption of electricity, kWh	231.7	266.3	294.3	236.3

Source: SSCU (2000): Statistical Yearbook, p. 95, 110

The above discussion applies to the industry as a whole and does not account for the differences among individual firms, which could use different technology. However, addressing the branch as a whole seems to be justified, because up until now the selection process within the branch has not adjusted to what would be considered to be an adequate capacity in relation to demand.

Ukrainian steel production is extremely energy intensive. The use of energy amounts for almost 30% of production costs, while in Western countries the ratio is significantly less than 10%. In general, Ukrainian metallurgy is highly material-intensive and the share of value-added in gross production is less than 20%.

Given the underutilisation and the outmoded technology, the profitability of this branch is not expected to be high. Steel production using open-hearth furnaces was highly unprofitable in 2000. Nevertheless, the top four steel plants belonged to the top 10 profit makers in the Ukrainian economy. In addition, they generated the highest export revenues among all enterprises. However, after the record year of 2000, financial results before taxation are expected to fall in 2001 by 20% or more.

Subsidisation and market forces

In various ways, metallurgy has been supported by preferential treatment in the last years. In particular, the economic experiment provided for reduced tax rates on profit: 9% in the second half of 1999 and in 2000, and 15% in 2001 instead of 30%. This amounted to UAH 2.6 bn of tax gifts during the experiment. In addition, about UAH 2.5 bn tax debts were written off or restructured. These tax privileges were partly compensated by the failure of the government to refund VAT to the exporters: as of 01.10.2001, the VAT refund debt amounted to UAH 845 m. To settle the question of government tax debts, the industry was allowed to conduct mutual settlements with the budget and energy companies, although this practice had already proved to be inefficient in the past with far-reaching and negative effects on transparency, risks, and rent-seeking.

In 2000 and 2001, metallurgy was a net debtor in the economy, which absorbed rather than contributed to the liquidity of the other sectors in the economy. Although, because of the export earnings and, therefore, the relatively good liquidity position of metallurgy, the sector can be expected to give more trade credits than it receives from domestic industry.

Due to the non-transparency of prices and costs of energy, there might be an implicit subsidisation through energy prices. The debt-ridden and state-supported Ukrainian coal mines still provide a substantial part of inputs (coking coal) at administered prices, government intervention in electricity supply is still observed, and gas prices are clearly below world market prices.

External risks

The growth of exports in recent years was volatile but showed an upward trend. The unit export prices for various steel products declined rapidly up until 1999, which coincided with the loss making in crude steel production during this period. The recovery of prices in 2000 was probably due to a recovery of world market prices, which also led to an increase in profitability for most steel products. Reduction in foreign demand, the appearance of new competitors in world steel markets and the intensification of anti-dumping procedures represent the most important external risks and will be discussed below.

Foreign demand

The most important markets for Ukrainian steel products are the Middle East and South East Asia, each absorbing about 30% of exports. Half of steel exports go to 7 countries: China, Russia, Turkey, Taiwan, the USA, Italy, and Bulgaria. As a newcomer to the world steel market, Ukraine won market shares in the above-mentioned regions in the last couple of years. Accordingly, its exports were driven by the growth in the importing countries. The worldwide slowdown of growth in 2001 also affected Ukrainian steel exports, which declined by 1.5% in 2001. Low growth is projected to continue in 2002. The USA and Europe are expected to grow only slightly. Also, growth in Middle East will not pick up next year. Only the advanced countries in Asia might show a better growth performance than in 2001. The market in China seems to be especially robust, and Taiwan is expected to grow again this year. But the main importers of Ukrainian steel products in these regions (China, Taiwan and Turkey) also belong to the world biggest producers of steel. Thus, a reduction of internal demand in these countries may result in a decline in Ukrainian exports, because those countries will first rely on domestic products and only excess demand will be satisfied from outside sources. Yet, according to the projections of demand for different regions, a small growth in Ukrainian steel exports in 2002 seems possible. If world growth picks up in the second half of 2003, a clear stimulus for Ukrainian exports can be expected.

Loosing competitiveness

But the outlook for the Ukrainian steel industry in the medium term does not only depend on worldwide growth prospects. The Ukrainian steel industry also succeeded in recent years in winning market shares abroad from former suppliers. However, Ukraine was not the only country that emerged strongly on the world market. Russia, China, and India are also new competitors on the world market. Ukraine has to prove itself in competition against the new as well as the established steel suppliers in

the world market. This competition is likely to be decided by productivity. There is an excess of steel capacity in the world and international endeavours strive to reduce worldwide capacity. Price competition, which currently takes place across the background of plenty of capacity, will in the future be much more governed by advances in productivity. Actually, Ukraine is competing in the market for low value-added steel products. These products could be exported to the US as well as the EU because domestic production in these regions concentrates on more sophisticated products. The situation is different for Ukrainian exports to developing countries, e.g., China, which mainly produce the same product range as the Ukrainian steel firms. Thus, the competition comes mainly from among the producers of lower quality products.

In addition, internal issues in Ukraine might weaken the competitiveness of metallurgy. Firstly, there is the issue of rising prices for energy and energy tariffs. In the medium term, these costs will definitely increase and will hurt metallurgy if it stays as energy-intensive as it is now. Secondly, there is a constant real appreciation of the hryvnia, which reduces export earnings.

Anti-dumping and tariffs

Another important factor is the development of the rules for the world steel trade, which is characterised by a variety of non-competitive practices and by state intervention. Governments attempt to protect domestic production. Anti-dumping procedures occurred more often with respect to steel products than for any other goods. Newcomers on the world market are in particular the target of such import-restricting measures. Ukraine has already suffered from strong measures against its exports in recent years. So far antidumping investigations have been or are being conducted in the USA, Canada, the EU, Venezuela, China, India, Mexico, Turkey, Thailand, Indonesia, etc. The major accusations during the antidumping procedures comprise dumping and government subsidies. It seems rather unlikely that Ukraine's metallurgical production will adhere to the strict market rules. Ukraine is still not a WTO member. Besides, there is a worldwide overcapacity of steel. These developments bear the real threat of preventing Ukrainian steel exports reaching some local markets. Ukrainian policy-makers should take this situation into account.

In spring 2002, the USA introduced an 8-30% tariff on steel imports (not for the NAFTA countries Canada and Mexico). According to experts' estimations, this will certainly divert large quantities of steel previously imported by the USA to other world markets. The EU as well as other steel producers will block a surge of imports from former suppliers of the USA and protect their markets as well. These trade restrictions will hurt Ukraine, even though its main export markets are outside the US and the EU.[8] If former exports to the EU or the US are redirected to the remaining

[8] The number of special and antidumping investigations carried out against Ukrainian steel producers by the USA by far exceeds those in other countries. Nevertheless, the investigation is conducted so that Ukraine may be acknowledged to be a country with a market economy. Canada and the EU have already acknowledged this within their antidumping legislation. This

open markets, competition will drastically increase and push the profit margins down.

Effects of changing metallurgy exports on the trade balance

To assess the impact of declining ferrous metallurgy exports on the economy, some rough estimates are presented. The intention is also to show how this sector is fundamentally linked to the whole economy. Assuming a hypothetical decline in ferrous metallurgy exports of UAH 100 m, the following effects[9] are expected:

If all the energy needed to produce this amount of exports had to be imported, then out of the UAH 100 m exports, UAH 47 m would have to be spent on energy imports. Thus, the net effect of a change in ferrous metal exports on the trade balance is much smaller than the original change in metal exports. If, in contrast, it were assumed that no additional imports are generated by the metal exports, this would mean that the domestic energy sector would have to decrease production by about UAH 65 m. It is most likely that the truth is somewhere in between these two scenarios. Changes in net exports earnings resulting from a UAH 100 m decrease in exports will be about UAH 60–70 m.

These calculations are based on the assumption that energy and other inputs to ferrous metallurgy are always a constant portion of output. However, as said before, in Ukraine one must assume that the inputs per unit of output decrease with the increase of production. If the production of steel declines, energy consumption per unit will increase. This means that a decline in ferrous metallurgy exports will negatively affect the trade balance more the above estimated UAH 60–70 m.

3.1.3 Policy recommendations

Opportunities – a risk reducing strategy

In assessing the external risks for Ukrainian steel companies, one has to keep in mind what a likely strategy for a prosperous steel industry would be in Ukraine. The basic point of such a strategy is that reducing the risk of export shortfalls is intrinsically linked to the progress in domestic production. A risk reducing strategy would most probably consist of the following items:

1. ***Capacity has to be adjusted downwards by scrapping outmoded production technologies.*** This means finding solutions for financing closures; the exit costs (reduction of employment), as stated in the first chapter, will be not negligible.

allows antidumping investigations to be conducted against particular Ukrainian enterprises without using anymore third markets as a reference. Different quotas regulate Ukraine's exports to EU countries. Antidumping procedures in the USA and the EU can be regarded as extremely harmful due to the relative stability of these markets, high prices and lower price volatility.

[9] The effects are calculated for the branch "metallurgy and metalworking" using the I/O table of 2000. We thank Ms. Kryuchkova and Mr. Bogdan from the Institute for Economic Forecasting in Kyiv for their help.

2. ***The amount of capacity reduction required should be primarily governed by internal demand.*** There is a trade-off between capacity reduction and internal demand. The higher the internal demand, i.e., growth of the Ukrainian economy, the slower or the lower the reduction in capacity needs to be. Domestic growth and consumption of steel will be crucial for the international negotiations on capacity reduction, which mainly target export capacities.
3. ***To avoid punitory measures by potential importers, Ukraine has to comply with the rules of the game.*** The world steel trade is characterised by a variety of non-competitive practices and by state intervention. International attempts to reduce these practices are under way and will result in more pressure being applied on countries to abstain from subsidies, state assistance and anti-competitive behaviour.
4. ***Existing capacities have to be modernized.*** Advantages in competition will be linked to the successful upgrading of the production profile (more final products, better quality) as well as to issues of standardisation. The less state interventions are tolerated internationally, the more the competition in the world market will be governed by advances in productivity.

An economic strategy designed to reduce the vulnerability of its steel exports and to enhance the outlook for domestic production in Ukraine has to find the appropriate mix of the above components. Obviously, there are several trade-offs among these elements of economic strategy. The basic component of the strategy would be to bring in line capacity and output, which would reduce the unit costs significantly. However, striving for an increase in production (with declining unit costs) on the basis of the existing overcapacity through aggressive exports at low prices will significantly increase the risk of retaliatory actions by importers, given the increasing international awareness and support for free trade. A combination of capacity reduction and the upgrading of production quality would lead to a higher value-added content in production.

Proposals to deal with the risks

Improving cost efficiency

Achieving higher efficiency can conceptually be dissolved into two steps: first, adjusting capacity (downward) to production in order to achieve minimum average costs and secondly, by improving technology. Although in practice both processes are interlinked, they will be discussed separately. In both cases, the unit costs of production will be reduced, which is not only important in ensuring competitiveness in the world market but also in increasing demand at home.

The reduction of capacity and its management

Adjusting capacity downwards is indeed a formidable task, because it involves laying off quite large number of workers. But at the same time, it will greatly reduce fixed costs and, thereby, improve the profitability of the industry. To this end, any programme for downsizing has to be

accompanied by a strategy of exit, which supports the laid-off workers. This process is likely to be costly and will take up several years. However, at the "OECD High-Level Meeting on Steel" it was expressed that international institutions may be requested to consider the feasibility of providing financial assistance in this process. Ukraine can point out that support for financing closures will result not only in big energy savings but also in a reduction of pollution.

Ukraine finally agreed at the OECD meeting to participate in the worldwide capacity reduction process. According to a national programme for industry development, capacities will be reduced by 5.8 m t for pig iron and 5.9 m t for steel by 2010. This reduction should definitely be concentrated on the outmoded technologies and will, thereby, improve the average efficiency of the industry.

Restructuring

The arguments for improving the technology are similar, namely, energy saving and reduction of pollution. By scrapping the most outmoded types of production, the technological level of the industry will be automatically enhanced. In addition, in the long run, risks against shortfalls in export are best countered by enhancing the quality of products. This would also increase the share of value-added in production as well as decrease the vulnerability to the volatility of prices for low-value products. However, for some time to come, Ukraine will remain a producer of more simple products like raw materials and semi-finished products.

Up until now, Ukrainian metallurgy could only attract limited foreign investment. New management and capital can produce a turnaround for even old Soviet style metallurgy enterprises as has been shown by Ispat-Karmet, a steel plant in Kazakhstan. Foreign investment will be attracted by the prospects of the domestic Ukrainian steel market. If domestic demand from sectors, such as construction, machine building, etc., continues to grow, foreign investors will come, while foreign investment in Ukrainian exports are less likely.

Financial means from Ukraine are of course still necessary on top of foreign capital. In recent years the firms themselves financed by far the majority of investments. This is also likely to be the case in the next few years. The regulations on further development in the industry[10] will provide some state funds for modernisation. However, the way in which this money is allocated will be important. Past experience has sadly demonstrated that the Ukrainian administration is not very successful in restructuring and governing large industrial enterprises. A downsizing of the industry through restructuring and consolidation will leave more money for the survivors of this process. Market forces and the industry itself - with minimum intervention from the state - should largely drive such a consolidation process. Voluntary agreements, which also cover their own enforcement, can be reached by the enterprises in the industry themselves. This scheme has worked well in several western countries and tries to reduce state involvement even in times of major structural changes.

[10] For more details, see the Law of Ukraine "On the Further Development of Ore-mining and Metallurgical Industry" No. 2975-3, 17.01.2002.

Unfortunately, worldwide attempts to tackle overcapacity through agreements at the nation state level (rather than via the markets) are not helpful in promoting increased competition as part of the transition process in the Ukrainian steel industry. The allocation of quotas as well as the assignment of capacity reductions to firms are likely to strengthen the role of the state. Quotas and voluntary agreements imposed by foreign trading partners nurture "Regulated collusion" rather than competition. The most important task will be to introduce as many market forces as possible in the process of consolidation and to increase transparency in the sector's financial transactions.

Multilateral agreements and co-operation

Given the dependence of the metallurgy sector on exports, any plans to restructure and support this sector have to be co-ordinated with the international community. Only with such co-ordination can Ukraine protect itself from retaliatory measures against its exports. The international community of steel-makers seems to be prepared to accept country specific measures of support, if they are agreed internationally. On the other hand, the possibilities of restricting steel imports are vast, given the strong involvement of the Ukrainian state in the industry and the low transparency in this area. The handling of the steel industry is certainly a major step towards accession to the WTO. In addition, the rules of the game as codified in the PCA have to be honoured. On top of these organisations covering trade issues in general, close co-ordination should also take place with the international steel associations. It is the national steel associations in each country, which lobby strongly for safeguards against foreign competition. It has to be kept in mind that the new entrants in the steel market, like Ukraine, are likely to be the biggest losers, if inclinations towards "trade wars" prevail. Thus, the government should encourage Ukrainian producers to take part in joint internationally co-ordinated moves in order to secure free trade in this sector. It is in the own interests of Ukraine to limit state intervention and non-transparent dealings in Ukrainian metallurgy in order to secure access to the world market and to avoid the waste of state funds.

3.2 The agri-food sector and the balance of payments

3.2.1 Quantitative importance

Agriculture is one of the Ukrainian economy's key sectors, accounting for roughly 22% of total employment and about 12% of GDP. Together, agriculture and the food processing industry (which accounts for some 13% of total industrial output) make up the agri-food sector. The agri-food sector has been among the fastest growing sectors of the Ukrainian economy in recent years, contributing disproportionately to Ukraine's renewed economic growth. Of course, the importance of agriculture is particularly felt in rural areas where it often provides the only source of gainful employment and income (around 70% of rural working population is employed in agriculture). However, the agri-food sector's impact on food

prices means that it also has a critical influence on the cost and standard of living in urban areas, in particular for the vast majority of the population with average and below-average incomes.

The agri-food sector also plays an important role in the determination of Ukraine's balance of payments. Ukraine's agri-food trade has accounted for an average of almost 13% of total merchandise exports since 1994 (Table 3.3), ranking behind only metal, machinery and chemical exports. Note that the export figures in Table 3.3 do not account for what are likely to have been significant exports in the fourth quarter of 2001, following a very good grain harvest.

Table 3.3
Ukraine's agri-food trade, 1994-2001

	1994	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**Q1-Q3 2001**	**Avg.**
Agri-food exports (USD m)	824	2657	3018	1739	1379	1418	1301	1163	1687
Share of:									
Grain & bread products, %	8.8	9.8	20.2	14.2	27.4	38.9	12.2	n.a.	18.8
Oilseeds & oil, %	11.0	7.4	13.9	22.4	26.2	17.0	32.5	n.a.	18.6
Confectionery & sugar, %	24.1	33.1	22.0	16.6	6.7	5.9	7.8	n.a.	16.6
Meat & meat products, %	16.2	11.4	12.1	21.1	14.5	13.4	16.1	n.a.	15.0
Agri-food imports (USD m)	591	2371	1447	922	1051	968	887	764	1125
Share of:									
Meat products, %	4.1	5.9	12.4	9.9	7.5	10.6	2.7	n.a.	7.6
Sugar, %	0.6	10.0	14.1	0.3	3.6	6.7	7.9	n.a.	6.2
Fruits, tea & coffee, %	12.9	7.6	8.0	8.0	7.8	10.7	8.7	n.a.	9.1
Fish, %	9.9	6.4	8.2	10.7	12.3	7.6	7.4	n.a.	8.9
Share of agri-food exports in total merchandise exports (%)	13.1	18.7	19.4	11.3	10.1	11.4	8.3	9.2	12.7
Share of agri-food imports in total merchandise imports (%)	3.6	14.0	7.3	4.7	6.5	7.5	5.9	6.1	7.0

Source: NBU

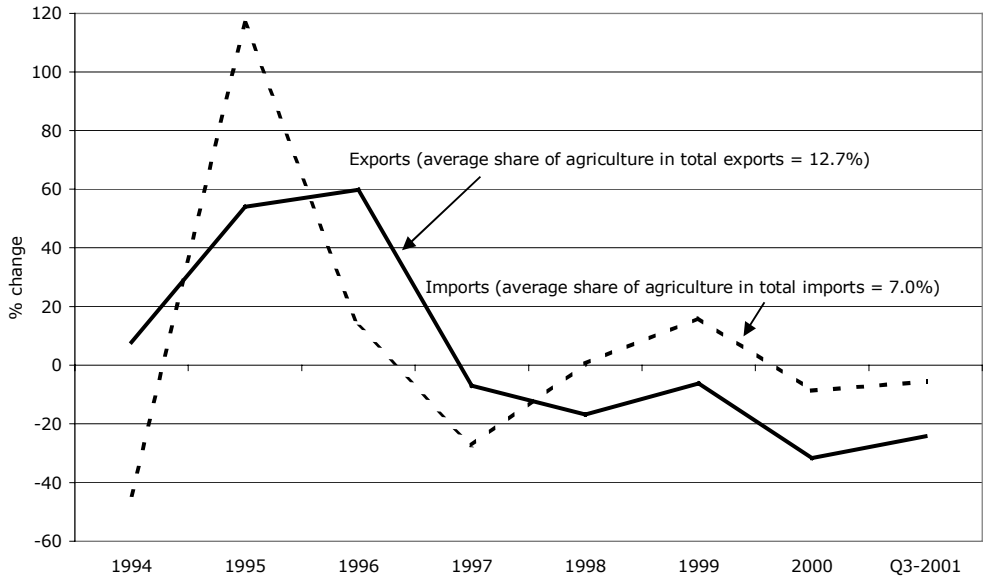
Agri-food trade is less volatile than, for example, metal and chemical trade, and it appears to have become less volatile over time (Graph 3.2). Table 3.3 shows that the composition of Ukraine's agri-food trade is quite diversified, as on average, no single item accounts for more than 20% of total exports or imports. This contributes to the relative stability of the agri-food trade as a whole. Nevertheless, significant fluctuations for individual products can be observed (see, for example, the dramatic

reduction in the share of grain in total agri-food exports from 38.9% in 1999 to 12.2% in 2000).

Box 3.1
The "balance of trade" and the "balance of ideas"

Note that statistics on trade and capital movements fail to account for what might be one of the most important inflows into Ukraine – the inflow of innovations and human capital. Imported ideas on how to manage enterprises and market products have been a major source of growth in Ukraine in recent years. Ukrainians who have studied or received training abroad and/or with foreigners who are working in Ukraine are behind the majority of the enterprises that have been successful and expanding since the late 1990s. This is certainly true of both the agri-food sector, where imported management methods and production technologies are making an ongoing contribution to increased productivity and profitability. But this is also true of other key sectors such as banking and energy. Without detracting from the importance of trade and FDI for the formal balance of trade, it is important to note that both also play a critical role as conduits of human capital and innovations into Ukraine, in other words for Ukraine's 'balance of ideas' *vis a vis* the rest of the world.

Graph 3.2
Changes in the shares of the agri-food sector in Ukraine's exports and imports, 1994 - Q3-2001



Source: NBU

The agri-food sector – and especially the food processing industry – also accounts for a large share of Ukraine's foreign direct investments (FDI). By the end of 2000, the food processing industry alone had accounted for USD 776 m or 20% of total accumulated FDI in Ukraine since its independence. Considering the large capital outflows that occurred in 2000 and 2001, FDI

remains a major source of capital inflows in Ukraine. In the first three quarters of 2001, FDI into Ukraine equalled USD 616 m, while the capital and financial account as a whole registered a deficit of USD 1039 m. Since agriculture and food processing together attract more than 22% of Ukraine's total FDI, the importance of the agri-food sector for the sustainability of Ukraine's current account is substantial.

3.2.2 Risks and opportunities

Risks

Agriculture tends to be volatile due to its dependence on weather. History has shown that grain and oilseed production in particular can fluctuate considerably in response to weather conditions (especially drought). Since grains and oilseeds have on average accounted for roughly 18% each of Ukraine's total agri-food exports in recent years (see Table 3.3), it is clear that adverse weather conditions could have a noticeable negative impact on trade and the balance of payments.

There is little reason to be concerned that **import demand** for agri-food products might expand in a manner that would threaten the balance of payments in the foreseeable future. Of course, as the Ukrainian economy continues to grow, imports of food specialities (tropical fruits, high quality coffee, imported wines, etc.) will increase along with incomes and the demand for "high-end" or "luxury" products in general. But this will be a gradual process and would have to be interpreted as a symptom of economic success rather than as a risk.

There would appear to be few serious **risks to continued growth in Ukrainian agri-food exports** due to the exogenous factors such as sudden changes in access to foreign markets. However, three possible exceptions to this observation should be listed.

The first of these exceptions is the Russian market. Russia has proven to be an erratic trade partner in the past, frequently changing import tariffs, closing its borders to specific products, etc. For example, it substantially limits imports of Ukrainian sugar and since recently, confectionery products. Russia's share in total Ukrainian agricultural and food exports is high (the countries of the former Soviet Union accounted for 58% of Ukrainian agricultural and food exports in 2000, with a substantial Russian share). This increases the magnitude of this risk.

The second exception is related to Ukraine's current status as a non-WTO member. Since Ukraine is not a WTO member, it does not have recourse to the trade dispute settlement procedures and due process enjoyed by members. Hence, other countries can unilaterally investigate Ukrainian exports against accusations of dumping or failure to meet required sanitary and phyto-sanitary standards, etc., and apply sanctions accordingly. In an agriculture-related area, Ukraine's fertiliser industry has felt the impact of such sanctions recently.

The third exception has to do with the unfortunate legacy of Chernobyl. It would have a devastating impact on Ukraine's agri-food trade if at some point in the future a shipment of Ukrainian agricultural or

food products was found to display levels of radioactivity that are deemed to be too high, or indeed any other important food safety deficit. While it may appear to Ukrainians that other countries – especially those in the industrialised West – apply a double standard when it comes to food quality and safety, in the final analysis it is the consumer who decides. For historical reasons, many consumers abroad harbour suspicions regarding Ukraine as a source of food. Note also that much of the food processing industry in Ukraine is not able yet to produce up to generally accepted international standards (for example in the areas of milk and meat processing). Ukraine will have to be very vigilant and can afford to make few, if any, errors in this regard.

Opportunities

Our fundamental optimism regarding the competitiveness and potential of Ukrainian agriculture and food processing leads us to consider not only sources of risk but also sources of opportunity – in other words, how could the agri-food sector contribute to a sustainable balance of payments.

Especially in the area of grains and oilseeds, there would appear to be a considerable potential for increased production that could be tapped over the next 5-10 years. Focussing on grain, the harvest in 2001 has shown that export surpluses of 10-15 m tons per year are not unrealistic. If farm restructuring continues and the more efficient farms continue to consolidate and grow at the expense of the less efficient, annual exports of perhaps 10-20 m on a sustainable basis are conceivable in the medium run. For the purposes of quick calculation, a world market price of roughly 100 USD/t can be assumed. We see, therefore, that doubling Ukraine's current annual grain exports of roughly 7 m tons to 14 m tons in the future would result in approximately USD 700 m of additional export revenue annually.

While USD 700 m is equivalent to only 4.3% of total merchandise export revenue in 2001 (USD 16.3 bn), it also corresponds to a full 116% of Ukraine's trade surplus in the same year (USD 0.6 bn). Hence, expanding grain and oilseed production and exports could have a major impact on Ukraine's balance of payments.

Of course, just producing a bumper harvest does not automatically translate into export revenues for farmers if the infrastructure required to market this harvest efficiently in not in place. The year 2001 has clearly demonstrated that a grain export surplus of 7 m tons is already more that the existing marketing system can manage efficiently. What is perhaps worse, poor infrastructure not only reduces market opportunities, it also reduces the share of export revenue that accrues to farmers. In 1999, for example, a more efficient market infrastructure would have increased wheat farmers' revenue by USD 55 per ha or USD 23 per ton. For Ukraine as a whole, this translates into forgone farm revenue of roughly USD 320 m, revenue that could have been used to increase investments and pay wages, input suppliers and taxes etc.

Increased production would necessarily be accompanied by some increase in the use of imported inputs (e.g. agri-chemicals and machinery). This would reduce the net impact of increased grain and oilseed exports on the

balance of payments. Nevertheless, this impact would remain significant. Furthermore, increased production would not only increase export volume. It would be likely to lead to some import substitution as well (for example, of oilseeds that are imported for crushing in Ukraine). Moreover, these rough calculations do not take the capital account into consideration. Recall that the agri-food sector attracts roughly 22% of all FDI in Ukraine. Many foreign investors in Ukrainian agriculture and food processing are especially interested in export activities. Hence, increased production and exports of agri-food products can be expected to go hand in hand with continued and increasing inflows of FDI. While beverage and tobacco processing have absorbed the lion's share of recent FDI into the food processing industry, increased agricultural production could encourage investments in other areas which are competitive in Ukraine, such as vegetable oils or dairy processing.

3.2.3 Proposals to reduce risk and harness opportunity

The risks listed above appear to be relatively minor and manageable. Important steps that could be taken to deal with these risks include **attaining WTO membership as soon as possible** and ensuring that international sanitary and phyto-sanitary standards of food production and processing are applied rigorously. WTO membership is of particular importance in this regard. As a WTO member, Ukraine would have access to due process in any future trade disputes with other members. Assuming that Russia will (also) join the WTO soon, Ukraine's agricultural and food trade with this partner could develop on a more predictable and less arbitrary basis. Finally, as the next round of WTO negotiations is expected to continue and strengthen the focus on agriculture, it will probably lead to a reduction in the use of trade distorting measures by major players such as the EU and the US. As such, it will improve and stabilise Ukraine's access to world markets for its agri-food products. As a member of the WTO, Ukraine could add its voice to those that are driving this process.

Regarding the risk due to weather-induced fluctuations in production, Ukraine is a large country that covers three major agri-climatic zones and has the potential to produce a wider variety of agricultural products than is currently the case. Hence, the potential impact of adverse weather on production, trade and the balance of payments could be moderated by pursuing **a strategy of agricultural diversification**. For example, the importance of sunflower production and trade could be diminished somewhat by increased production of other oilseeds such as rapeseed/canola and soybeans. This would increase stability and reduce the risk that a poor harvest of one individual product could have a major impact on trade and the balance of payments.

Both the expansion and diversification of agri-food production in Ukraine, and the maintenance and improvement of quality standards, will only be possible if **Ukraine continues to open its markets for inputs and new technologies**. Increasing the production of existing products and introducing products that are relatively new to Ukraine, at least on a large scale, requires seed, breeding stock, machinery, agri-chemicals and other inputs that are not produced in Ukraine at the moment. Upgrading Ukrainian food processing facilities (e.g. slaughterhouses and dairies) so

that they can produce products that meet international quality and hygiene standards will also require access to imported inputs and know-how. Foreign firms will only be interested in making these available to Ukraine if import barriers are low and transparent and Ukraine respects patents and intellectual property rights. Any attempts to protect domestic input producers in Ukraine will simultaneously slow the development of agriculture. It can be demonstrated that an import tax of 30% on agri-chemicals, for example, would reduce farm profits by roughly 8%, with predictable effects on investment and growth in the agri-food sector.

Agricultural commodities are often either bulky (grains and oilseeds) or perishable/fragile (meat and milk products). Therefore, bringing these products 'to market' requires **low cost and dependable marketing infrastructure** (transportation and storage networks, but also grading and certification facilities). At the moment, this infrastructure is only beginning to recover from decades of neglect, and to respond to new priorities (e.g. the new focus on international as opposed to primarily Soviet markets). It was mentioned above that the existing infrastructure proved to be insufficient in 2001, casting doubt on Ukraine's ability to market larger harvests of crop products in the future. In the short run Ukraine should do everything possible to avoid adding to the already inflated costs of marketing export products, for example by refraining from additional certification requirements and **eliminating monopoly structures** in the marketing chain (i.e. Khlib Ukrainy). In the medium to long run, public/private joint investment in infrastructure projects (harbour facilities, inland waterways, the railroad and highway system, grain and oilseed elevators) would, if managed in a transparent manner, generate very significant returns on investment for the Ukrainian economy.

Research and professional training will be required to adapt new products and production methods to Ukrainian conditions. Education will be required to train the required pool of managers and technicians. Especially in the areas of farm business and enterprise management, Ukraine's research and education system lags far behind international standards. A perhaps symbolic but nonetheless telling symptom is that Ukraine does not have an active country group in the International Association of Agricultural Economists, which is certainly surprising considering the country's history and image as an agricultural powerhouse. Public funding and international co-operation in research and education in the areas of agricultural economics, agricultural production and food processing should be given the highest priority.

3.3 Assessment of energy related risks

3.3.1 Quantitative importance of the energy sector

Insufficient domestic energy resources and Russian oil and gas transit

Ukraine's own energy resources are limited. So it, therefore, has to cover a substantial part of its energy demand through imports, which mainly come from Russia, Kazakhstan and Turkmenistan. According to SSCU statistics, Ukrainian energy imports reached about 40% of total merchandise imports, which is about 17% of GDP in 2001.[11] Ukraine benefits at the same time as a transit hub for energy due to its geographical location. Until recently, it had a monopoly position on Russian natural gas transit to Eastern and Western Europe. It also has a developed pipeline infrastructure designed for transporting Russian crude oil to Europe. The fees for gas and oil transit in 2000 amounted to USD 1.7 bn or 5.3% of GDP. According to balance of payments statistics, these transit services are equal to about 9% of the total export of goods and services or to about 45% of the total services exported by Ukraine.

Ukraine is dependent on both imported energy resources and the amount of Russian energy transited through its territory. Both facts make the economy extremely sensitive to potential external shocks in its energy supply and in Russian payments for transit services. An increase in the amount of energy imported or in energy prices may exert a downward pressure on the national currency. The same effect will take place if the value of energy transit services declines. A high energy intensity in production further increases the vulnerability of the Ukrainian economy to negative shocks in the energy sector.

Energy intensity of GDP and structure of total primary energy supply

Ukraine is the most energy intensive country in Europe. To produce 1 USD of GDP, it uses about 20 times more energy than developed Western European economies do. The intense use of energy in the Ukrainian economy was even 1.9 times higher than that in energy-rich Russia (Table 3.4 provides the energy supply [12] in terms of tons of oil equivalent (toe)[13] per one thousand 1995 US dollars).

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11 According to the International Energy Agency (IEA) imported energy resources reached about 45% in total energy consumption in 1999.

12 In this paper the term "energy supply" is equivalent to the International Energy Agency (IEA) definition of total primary energy supply.

13 Definition of toe "One tonne of oil equivalent (toe) is defined as the quantity of energy is equal to the net heat content of 1 tonne of crude oil".

Table 3.4
Energy intensity of GDP in selected counties (1999)

Country	Energy supply/GDP (toe per one thousand 1995 US dollars)
Commonwealth of Independent States	
Belarus	0.94
Russia	1.87
Ukraine	*3.55*
Eastern Europe and the Baltic states	
Bulgaria	1.57
Czech Republic	0.74
Hungary	0.49
Lithuania	1.09
Poland	0.59
Romania	1.28
Western-European states	
France	0.15
Germany	0.13
United Kingdom	0.18

Source: IEA (2001): Key World Energy Statistics, pp. 49-57

Since 1996 the structure of the energy supply[14] and the energy intensity of Ukrainian GDP did not change substantially according to our estimations. However, Ukraine's energy supply structure differs substantially from the EU average one, e.g. Germany (see Graph 3.3). The share of natural gas is much higher in Ukraine than in Germany, whereas the share of oil is substantially lower.[15] The heavy reliance on imported gas consumption goes hand in hand with low prices for natural gas or just simply non-payments for the gas consumed. In contrast to this, oil consumption is disproportionately low, since the oil supply is conditional on the amount paid.

While saving energy could be one of the major ways to improve the efficiency of the Ukrainian economy, distorted energy pricing, persistant non-payment, outmoded meter equipment, or even its absence, all substantially reduce the incentive to conserve energy. As a result, very little success has been achieved in this respect in Ukraine so far.[16]

Most gas import transactions are conducted in a non-monetary form, substantially distorting the prices of energy supply and the total value of import and export in the current account. Russia's Gazprom pays

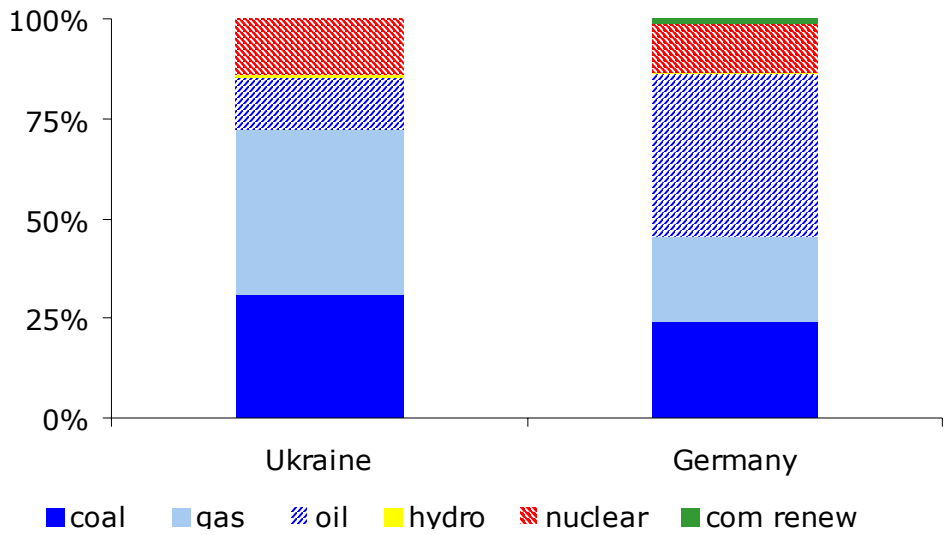
[14] Energy supply /GDP (toe per 1000 1996 US dollars) was 3.40 in 1996, 3.22 in 1998 and 3.05 in 2000. The difference in our and the IEA estimates on energy intensity is mainly attributable to different annual base for real GDP estimation in USD.

[15] Thus, the oil share in energy supply was 13.2% in Ukraine whereas corresponding share in Germany in 1998 formed 40.6%.

[16] The situation continues notwithstanding the creation of the specialised State Committee of Ukraine on Energy Conservation (Presidential Decree No.918/95, 06.10.1995).

Naftogaz[17] in kind for its transit services. Naftogaz pays Itera in kind for transit services and Turkmenistan for half of the imported Turkmenian natural gas at the Turkmen-Uzbek border.

Graph 3.3
Structure of energy supply in Ukraine and Germany in 1998



Source: EIA

3.3.2 Sources of risks

External risks for Ukraine's energy sector stem from both changes in transit volumes for Russian natural gas and changes in the payment settlements for Ukraine's energy imports. The two aspects taken together pose substantial external risks for Ukraine. Because of the interrelated nature of the two risks, the quantitative assessment of the risks will be done using scenarios.

The risk assessment includes only possible developments on the markets for natural gas and oil, as they amount to about 90% of all Ukrainian energy imports. Additionally, economic growth might cause substantial increases in oil and in the consumption of oil products.

Scenarios of change for natural gas import and transit

The scenarios studied are derived from major changes in both the volume of Russian gas transit through Ukrainian territory and the payment conditions for imported gas. There are the following combinations of possible changes. The first combination assumes that the status quo for natural gas transit is maintained and that non-monetary payments are continued (scenario 1 in Table 3.5). The second combination assumes a declining amount of Russian gas transit and the continuation of current

[17] National joint stock company "Naftogaz of Ukraine".

payment conditions (scenario 2 in Table 3.5). The third combination assesses the full switch to monetary settlements between Ukraine and its foreign partners (scenario 3 in Table 3.5).

Table 3.5
Scenarios

Scenario*	Transit volume	Settlement of payments
1	No change	No change
2	Decline	No change
3	Decline	Cash

* The fourth possible combination of a transit volume at the current level and a simultaneous switch to cash settlements seems to be very unrealistic. First, the transit volume cannot be supported at the current level due to the completion of the Yamal-1 pipeline, which acts as a bypass. Second, Naftogaz is not under any pressure to switch to monetary transactions as long as it is able to earn its current monopoly rent for natural gas. Therefore, this scenario is excluded from the discussion.

The estimations are based on the following information:

Gas imports in the year 2001 were about 57 bcm, of which 26 bcm were Russian transit payments, 17.3 bcm Ukrainian imports from Turkmenistan by Naftogaz, 13.7 bcm imported to Ukraine by the international corporation Itera[18] and only 0.05 bcm imported by other companies.

According to the Ministry of Economy's balance of natural gas, Itera should obtain about 42% of the Turkmenian gas sold at the Turkmen-Uzbek border as a payment for the transit of Turkmenian natural gas. Itera then sells this gas to traders and large industrial enterprises in Ukraine. Itera's FOB price at the Russian-Ukrainian border for large industrial enterprises amounts to USD 50 per tcm. We assume that this price will not change during the next three years and use it as the Ukrainian market price in the following calculations. The Turkmenian gas prices are set in the Turkmenian-Ukrainian agreements on the Turkmenian gas supply to Ukraine.

In 2001, gas consumption fell by about 3 bcm compared to 2000. According to our estimates, it will fall by an additional 2 bcm by the end of 2004 compared to 2001. The total import of natural gas will also decline by this amount in the future, since domestic extraction will not increase due to the absence of the investments required in the industry in previous years.

Future increases in oil consumption

There are substantial differences between estimations by different expert institutions on the Ukrainian balance of oil and oil products. This study uses the forecasts for oil consumption made by the German Advisory Group based on data of the State Statistics Committee of Ukraine, International

[18] According to our estimates 12.6 bcm of natural gas is a payment from Naftogaz for Turkmenian natural gas transit through the territory of Uzbekistan, Kazakhstan and Russia and about 1.1 bcm Itera supplied from other sources.

Energy Agency (IEA), and Energy Information Administration (EIA). According to this forecast, oil consumption will increase as a consequence of further economic growth. First, the current share of the transportation sector in total oil consumption is rather low, when compared to other countries. Freight turnover in automobile and river transportation as well air passenger transportation are expected to increase. Second, oil consumption will grow and be increasingly substituted for gas consumption due to an improved payments discipline and the adjustment of gas prices to the market level. Third, following modernisation, domestic oil refineries will be able to supply light petroleum products, which can be used by households, small enterprises, public organisations etc. So the share of oil consumption in total energy consumption will increase even further. According to our estimations oil consumption per annum will increase by 3.1 m toe by the end of 2004 and will be supplied by imports. At current prices, this results in a current account deterioration of USD 350 m.[19] *Thus, the share of natural gas consumption in the energy consumption will go down while oil share will go up.*

Scenario 1. Current structure of settlements for imported gas and its transit volume

In this scenario we assume the absence of substantial changes in the form of imported natural gas settlements for the next three years as well as no decrease in the volume of natural gas transit through Ukrainian territory. If the payment for natural gas transit along with domestic extraction remains constant and domestic consumption falls by 2 bcm, Ukraine will not need to import as much Turkmenian gas. This will result in **improvements in the current account equal to USD 70 m**. Taking into account **changes in the oil industry,** the **current account deterioration will be** approximately **USD 280 m**.

Two Scenarios of declining Russian gas transit through Ukraine

Ukraine has been unable to maintain the required investments in the gas transport system, which has led to anxieties concerning the future security of natural gas transit to Central and Western Europe. The unauthorised gas extraction from transit pipelines by Ukraine undermined the security of gas transit even more and created difficulties between Ukraine and Russia. These two major factors led to the construction of the pipelines bypassing Ukrainian territory.

As in the previous scenario, we assume that the same structure for energy supply will be achieved by the end of 2004, however, the volume of Russian gas transit to Western Europe through Ukrainian territory will decline following the completion of the Yamal-1 pipeline.[20] As a result, Naftogaz will only be able to buy 22 bcm[21] instead of 26 bcm of natural gas using the money obtained for its transit services in 2004.

19 Using current CIF price for Urals oil at North-European border.

20 Linking Nesvizh (Belarus) and Kondratki (Poland).

21 Using average haulage 1114 km and current tariffs and prices.

Scenario 2. Status quo concerning payment settlements

If imports of natural gas are maintained at the total volume of 55 bcm (Russian gas 22 bcm, Turkmenian gas 19.1 bcm and Itera's import 13.9 bcm, obtained for transit services) - Turkmenistan agreed on half of payments in goods and services until 2006 - then **the negative impact on the current account will be USD 100 m**. If we include the current account deterioration due to the increase in oil consumption the **total deterioration will amount to USD 450 m**.

Scenario 3. Complete cash settlements

Most prices used in the analysis above are prices in the system of barter payments, which are usually substantially higher than their monetary equivalents. Therefore, if all settlements are conducted in cash in the future, both Turkmenistan and Itera may set a lower price for natural gas and its transportation services respectively. Moreover, Russian oil extraction companies are willing to sell natural gas on the Ukrainian market, which would increase competition and would probably also lead to price reductions. Therefore, we can assume that the price in 2004 will be as low as the current one (USD 50 per tcm).[22] Since the goods and services exchanged for gas were also overvalued in barter payments, their value should also decrease by the corresponding amount. Altogether, **the current account surplus resulting from gas imports will be about USD 115 m** and the **total deterioration due to the increase in oil consumption will be USD 235 m** which is substantially lower than that in scenario 2.

The summary of possible changes in the energy sector and their impact on the current account is presented in Table 3.6.

Table 3.6
Estimates of possible developments in energy markets and their impact on the current account (USD m)

Scenarios	Main assumptions	Impact of changes in gas industry	Impact of changes in oil industry	Total change
1	Status-quo concerning payments conditions, Russian payment is 26 bcm	70	-350	-280
2	Status-quo concerning payments conditions, Russian payment is 22 bcm	-100	-350	-450
3	CIF price of imported gas at the Ukrainian-Russian border is equal to current market price (P=USD 50 per tcm), market value of Russian payment is 22 bcm	115	-350	-235

Source: own estimation

[22] Itera's CIF price for large industrial consumers.

3.3.3 Policy recommendations

Switch to monetary transactions

The results of the assessment clearly show Ukraine would gain substantially from switching to complete monetary transactions in the gas sector. Russian gas transit through Ukrainian territory will decline following the completion of the first stage of the competitive northern route (Yamal-1 pipeline). Switching to complete monetary settlements in the gas industry would allow Ukraine to substantially reduce the negative impacts from this on the current account. Thus, the negative effect on the current account, if Ukraine will continue using barter settlements would amount to USD 450 m, while a switch to cash settlements would reduce the impact to USD 235 m. The competition between different gas importers will guarantee price stability along with incentives for energy saving.

Reduction of energy intensity

Evidently Ukraine could obtain huge gains by reducing its energy intensity in relation to GDP. This would lead to improvements in the current account and a reduction in its energy dependency. All other things being equal, the reduction in the total primary energy supply in terms of GDP even to the Russian level would allow Ukraine to save about 70 m toe. Ukraine could even become a net energy exporter. Even the reduction of energy intensity by 25% would allow Ukraine to save about 37 m toe which corresponds to 86% of its natural gas imports. But a reduction in energy intensity might require the implementation of some unpopular policy measures. The first step should be the enforcement of 100% cash payments for energy resources consumed inside the country. As a second stage the prices of natural gas for all consumers should be raised to market levels.

The enforcement of hard budget constraints and price adjustments will result in a reduction of energy intensity, which in turn will positively affect the competitiveness of Ukrainian enterprises in the world market. Energy intensity in production is a substantial factor in competitiveness and its reduction will provide effective support for the current economic recovery and growth in the long-run.

One of the major policy measures is an improvement in the way in which the consumption of gas is metered. This will provide consumers with incentives to save energy as well as making consumer invoices transparent. The amount of meters and temperature regulators installed ought to be increased so that they cover 100% of consumption for all consumers and obsolete meters in the industry should be replaced. Although according to our forecast, the total primary energy supply will remain practically the same till the end of 2004. But further economic growth along with the enforcement of hard budget constraints will result in a GDP energy intensity decline from 3.05 in 2000 to 2.46 toe per one thousand 1996 US dollars.

Enhancing the reliability of the transit network

One of the main pillars of European energy policy is the security of its energy supply. It is unlikely that any new pipelines will be built in Ukraine to transport additional gas to Central and Western Europe. However, Ukraine should attract investments into the transit pipelines very quickly, as otherwise the existing capacity will start to decline and its reliability will be questioned. A decline in the reliability of the Ukrainian gas transit capacities will speed up the construction of pipelines bypassing Ukraine. If Naftogaz by itself is unable to provide required investments, a consortium with the participation of Naftogaz, Gazprom and potential strategic western partners could provide the required investments and management for the pipeline. Enhanced reliability in the gas transport system would allow Ukraine to play a key role in gas transport to Central and Western Europe not only today but also in the future.

Diversification of energy imports

Ukraine could reduce the probability of negative shocks occurring in the energy sector by changing the structure of energy consumption and so changing the structure of its energy imports. The gas imports to a large extent depend on its geographical location. Since the imported Turkmenian natural gas needs to be transited through Russian territory, it cannot be considered as a diversification of energy imports. In contrast, oil is broadly traded internationally and could be imported from different countries. Moreover, the current oil share in total primary energy supply is very low compared to Western European countries and has a substantial growth potential especially as Ukraine has now the required infrastructure to import Caspian oil following the completion of the Pivdennyiy oil terminal and the Odessa-Brody pipeline. It is expected that oil consumption increases will be stimulated by economic growth and proper gas pricing. The increase of the oil share in the total primary energy supply according to our forecast could be 16.3% by 2004, which is still very small compared to the mature market economies and should continue to grow further, if the economic growth is sustainable and if the institutional environment for the oil industry is improved. Measures for improving the environment should include a stable legislative framework for the industry and competition among oil refinery plants.

3.4 The risk of lower foreign direct investment

3.4.1 The quantitative importance of the FDI

Although the stock of foreign direct investments (FDI)[23] in Ukraine is low compared with other transition countries, the importance of FDI for the

[23] The term "FDI" is defined as the net inflow of the foreign direct investments to Ukraine. This chapter will not consider Ukrainian investments into other countries' economies, as their flow figures are very low compared with FDI into Ukraine: Ukrainian investments into other countries were USD 17 m in the first

Ukrainian economy and, in particular, for its balance of payments (BoP) should not be underestimated. In January-September 2001, FDI flow into Ukraine amounted to USD 616 m, raising the cumulative stock of FDI to the USD 4.4 bn (NBU, 2001).[24]

FDI flows directly influence the foreign exchange market and the balance of payments because they constitute a significant source of foreign currency supply in the economy. More than three-quarters of total FDI flows into the Ukrainian economy are in monetary form (in January-September 2001, the monetary component of FDI constituted 78.5% of its total amount). The importance of FDI as a source of foreign currency is presented in Table 3.7. During January-September 2001, the size of FDI net inflow was equal to 50% of the current account surplus and 93% of net exports.[25] If the export earnings slow down in 2002, the role of FDI as a source of foreign currency supply might increase even more.

Since the other types of foreign capital, such as portfolio investments or medium and long-term loans cause net outflow of capital from the Ukrainian economy[26], FDI is the dominant source of foreign capital inflow into the Ukrainian economy. In 2000 FDI gross inflow (monetary component) constituted 37% of medium and long-term loans (gross inflow). With respect to the future repayments of external debt and the low probability of large inflows of new loans into economy, the role of FDI as the source of foreign capital will continue to increase.

Table 3.7
FDI (net inflow) relative to the other sources of foreign currency

	1998	1999	2000	2001*
FDI-to-CA balance ratio	-0.57	0.53	0.49	0.50
FDI-to-net export ratio	-0.62	0.45	0.53	0.93

*- January-September, 2001

Source: NBU, own calculations

3.4.2 Sources of risks

Potential negative shocks to the balance of payments and Ukrainian economy due to the changes in the size of FDI stock and flow can occur in

half of 2001 or 3.3% of FDI in Ukraine for the same period. The stock of FDI from Ukraine at the end of the first half of 2001 was USD 154 m (3.6% of the whole stock of FDI into Ukraine for the same period).

24 According to another source, the State Statistics Committee (Derzhkomstat), in 2001 the net inflow of FDI into the country was USD 531.2 m, which raised the stock of FDI to USD 4.406 bn as of January 1, 2002.

25 For better estimates of the FDI's impact on the foreign exchange market one should take the monetary component of FDI. However, due to the data constraints, as well as the fact that some of the current account items (e.g. part of exports, imports) do not necessarily involve currency, these estimates can be considered consistent.

26 Net figures, calculated as inflow of the investments or loans minus their outflow, are negative.

case of either a decrease in the FDI stock due to rapid foreign capital outflow from Ukraine or a lower inflow of FDI into the country compared with the expected level.

The risk of a rapid withdrawal of FDI from the Ukrainian economy is low for the following reasons. First, a high ratio of sunk capital investments and underdeveloped Ukrainian capital market and stock exchange make the costs of a rapid withdrawal of FDI prohibitively high. Second, business plans of those foreign entrepreneurs who are already working in Ukraine have, to a large extent, already been adjusted to a high risk expectation[27] associated with the different types of uncertainties in the business environment. This makes a rapid FDI "flight" very unlikely[28], unless there is a dramatic worsening of the general investment climate. Finally, current economic slowdown in the world economy produces an additional incentive for foreign investors to continue their operations in Ukraine in the industries that focus on the domestic market and are presently growing.

In contrast to the low risk of capital outflow, the risk of having a significant gap between the expected and actual level of FDI inflow is significant. This risk can be caused by two major factors: (1) absence of significant improvements in the investment climate or even its deterioration, and (2) failure to fulfil the privatisation plan (programme), particularly in 2002.

Investment climate

A lack of significant improvements in the quality of the investment climate discourage foreign investors from entering the Ukrainian market. A worsening situation on world markets makes foreign investors more risk-averse, thus, increasing their attention to the quality of investment climate in a recipient country. Although the large degree of openness of the Ukrainian economy, together with macroeconomic stabilisation and the 6% growth in real GDP forecasted by the government, create a favourable picture of Ukraine in 2002 for potential investors, it is the quality of many other factors in the total investment climate that plays a decisive role in attracting FDI.

During the past two years, Ukraine has made several positive steps contributing to the improvement of the investment climate:

a) the forthcoming new Tax Code is likely to simplify tax legislation, improve its transparency and lower the tax burden on firms, including those with foreign capital, although only in medium term;

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27 Ukraine tops the list of the most investment-attractive countries in 2001 in terms of returns on investments at 57.1%, which testifies to the extremely high risks perceived by investors.

28 One could argue that in a comparatively good year (2001) FDI outflow constituted about 33% of the FDI inflow into the economy. However, such large figures for FDI outflow might be justified by the redemption of the foreign stakes in the company "UTEL" by the Ukrainian telecommunication company "Ukrtelecom" (about USD 75 m), as well as closing its activity by the large foreign bank "Societe General" that was caused by the review of the worldwide strategy of this company. As a result, one can expect that this non-systematic outflow was caused not by the peculiarities of the Ukrainian economic environment, but by the strategic plans of the business units.

b) the reform of judiciary system (though incomplete) indicates the government's intention to increase the efficiency and transparency of judiciary system and improve enforcement of contracts.

At the same time, no significant steps were made in order to reduce the level of corruption which remains very high in Ukraine even compared to other CIS countries, constituting an important obstacle for FDI. Insecurity of property rights of foreign investors is another serious problem that constraints an inflow of FDI into Ukraine. Recently (December 2001) the parliament passed a new law[29] abolishing tax privileges for the enterprises with foreign investments in order to establish an equal treatment of the domestic firms versus those with foreign investments. This was accompanied by the amendments to another law,[30] which made it impossible for enterprises with foreign investments to claim their right to the privileges granted for the period before 2000.[31] The change in the economic rules for the most recent period does not increase the credibility of the state policy towards foreign investors.

Another example of the insecurity of property rights is provided by an ineffective administration and reimbursement of VAT, which undermines the competitiveness of export-oriented enterprises. At the end of 2001, the amount of state overdue debt with respect to VAT reimbursement reached the level of approximately UAH 2.1 bn. VAT arrears negatively influence performance indicators, damaging the cash flows and investment plans of the enterprises, in particular exporters, and undermining an incentive for foreign investment in Ukrainian export-oriented industries. Accumulation of debt and its non-repayment has different causes, in particular, drawbacks in VAT legislation (its non-stability, ambiguity, large amount of tax preferences, writing off and restructuring the business tax debt to budget); VAT administration (enforcement of the VAT in general and refund procedure in particular); general budget policy problems (decline in state revenues; violation of the budget legislation by approving the tax exemptions and its enforcement during the period of budget execution); general economic problems (growth of the inter-enterprise arrears, VAT refund fraud). The government has already introduced some steps by approving several acts in February 2002 aimed at solving the current VAT refund problems: reducing the refund debt by UAH 200 m by the end of March 2002 as the result of write off and bringing in UAH 50 m of additional revenues each month. However, the problem has not yet been solved.

These contradictory recent developments in the general investment climate in Ukraine make a significant increase in FDI inflow in the short run rather unlikely. The political uncertainty in 2002 caused by the parliamentary

29 Law of Ukraine "About the Introduction of Amendments into Some of the Laws of Ukraine in Order to Eliminate the Cases of Tax Avoidance of Some of the Enterprises with Foreign Investments", No. 2899-III, 20.12.2001.

30 Law of Ukraine "About Elimination of the Discrimination in the Taxation of the Subjects of the Entrepreneurship Activity, Founded at the Basis of Property and Means of Domestic Origin", No.1457, 17.02.2000.

31 Koshchyy V. (2002): Domashnyaya zagotovka. Kompanyon, No. 4 (260), 28.01.2002.

elections can be considered as an additional risk factor that might constrain FDI in the first half of the year.

Privatisation

There is a direct connection between the privatisation programme and FDI inflow. First, in 2001 about 50% of FDI flow into Ukraine came via participation of foreign investors in the privatisation of Ukrainian enterprises.[32] Second, about 60-70% of the total revenue from privatisation in the state budget comes from FDI. That is why expectations regarding the fulfilment of the privatisation programme as well as the very manner of its implementation play an important role in planning FDI inflow in Ukraine.

In 2002 the significant part of FDI is expected to come from the privatisation of two primary groups of objects, namely the telecommunication company "Ukrtelecom" and 12 power distribution companies ("oblenergos"), on the one hand, and secondary objects – other enterprises that are intended to be sold in 2002, on the other. The first group should generate the overwhelming part of the total privatisation-related FDI. Consequently, the positive outcome of 2002 is very important: besides the direct benefits in terms of foreign currency inflow this might have a significant impact both on the further development of the privatisation process and on the future inflow of FDI into the country. Successful privatisation of "Ukrtelecom" and "oblenergos" will serve as a signal for foreigners to enhance their participation in Ukrainian privatisation. This might also attract additional foreign investment into industries and related markets in the next few years.

"Ukrtelecom" privatisation has been remaining a key subject in economic and political discussion for more than two years. As the government has decided to substitute direct ownership control for regulation, privatisation should be implemented carefully in order to avoid private monopolist power abuse. Currently, the success of privatisation of "Ukrtelecom"[33] seems to be under serious threat due to the imperfections of the Law "*On Peculiarities of 'Ukrtelecom' Privatisation"*, low efficiency of the major local call operator, and the general situation in the sector of telecommunications. Non-transparent regulatory rules, serious violations of the internationally accepted regulatory practices, and a poor legal framework negatively influence the attractiveness of the company for foreign investors. Besides, the situation in the international markets for telecommunication services is not favourable for receiving external financing, which might discourage potential investors from participating in the privatisation of "Ukrtelecom". A non-controlling stake of the company

[32] The non-privatisation part of FDI consists of green-field investments, physical capital transfers, and execution of the investment obligations included in the privatisation plans of the previous periods. However, this part currently seems to be less volatile than privatisation-related FDI.

[33] So far even an extended privileged purchase of "Ukrtelecom" shares was not completely successful. Managers and employees executed their rights at 93% and 99% correspondingly, while only about 52% of the company's pensioners bought the company's shares under preferential terms.

(a package of 37% of shares[34]), which is offered for privatisation, seems to be of minor interest to potential strategic investors. This has clear consequences for the bid price and reduces the probability of "Ukrtelecom" being privatised in 2002.

The situation with the resumption of privatisation of ***12 electricity-distributing companies (oblenergos)*** is better. However, several problems related to the regulation of the electricity market might have a negative impact on privatisation in this sector. They include a high level of politicisation of the tariff-setting procedure, insufficient independence of NERC as a regulatory agency, imperfections of regulatory legislation, and non-transparency of the privatisation procedures. Although it was not likely that serious activity with respect to privatisation of "oblenergos" would be resumed till the end of parliamentary elections, new tenders are expected to start by the beginning of summer 2002. Foreign investors who have already taken part in such tenders in the past are expected to participate in a new round of privatisation, though their activity (and prices of the bids) might be constrained due to the problems with a tariff regulation. Besides, the time schedule of the privatisation tendering should be taken into account. Pre-privatisation restructuring (preparation) of the oblenergos as well as the tender itself are time-consuming processes, which might take too long to be accomplished. It is possible that the delay will shift part of the real monetary receipts into 2003, thus, reducing expected 2002 inflows.

Quantitative evaluation of the FDI related risks in monetary form decomposed into three basic scenarios are presented in the Box 3.2 below.

[34] There is a possibility that the stake for strategic investor will be increased up to 43% by the amount of the unsold privileged subscription stake.

Box 3.2
Quantitative assessment of FDI related risks in 2002

Quantitative evaluation of the possible gap between expected FDI inflows in case of completely successful implementation of privatisation and actual FDI inflows assumes three basic scenarios. The first one, which is the most optimistic, assumes that "Ukrtelecom" and all "oblenergos" will be sold successfully and in time. In this case, there will be no drop in FDI flow. The second scenario, which is more realistic, assumes that even if "Ukrtelecom" is not privatised, privatisation of 12 "oblenergos" will be successful. Then FDI inflow would drop by USD 550 m. The third scenario is the worst case, when neither 37% of "Ukrtelecom" nor 12 "oblenergos" are successfully sold. This would result in, at least, a USD 850 m gap between the projected and actual FDI inflows.

Three possible scenarios are summarised below:

Scenario	**Ukrtelecom**	**Oblenergos**	**Drop in FDI inflow, USD m**
1	Privatised	Privatised	**0**
2	Not privatised	Privatised	**550**
3	Not privatised	Not privatised	**850**

The important role of FDI in the privatisation process implies its significant impact on financing the budget deficit. The evaluation of FDI-related risks for public finance is presented in Box 3.3.

Box 3.3
Implications of the FDI-related risks for the public finance in 2002

The low level of FDI inflow, in addition to the balance of payments deterioration, affects public finance of Ukraine. A lack of investors' demand for the enterprises being privatised and unfavourable asset prices would result in low revenues from privatisation. Since privatisation revenue is a significant source of budget deficit financing and redemption of public debt, the failure of the privatisation programme constitutes a threat to government solvency. In 2001, revenues from privatisation constituted 11.3% of the total consolidated planned revenues and 5.2% of the actual ones. At the same time, FDI brings in 60-70% of total privatisation receipts. This implies an important role of FDI for state revenues.

The table below represents quantitative evaluation of the FDI influence on public finance. As it clearly shows, the effect of a slowdown in FDI for public revenues might be significant.

Scenario

Decline in privatisation receipts related to drop in FDI inflow

USD m	1
	0
	0
As percent of budget revenues	2
	550
	5.2
	3
	850
	8.0

According to the Budget Law of 2002, revenues from privatisation are projected in the amount of UAH 5.83 bn (or 9.8% of total state revenues) and have to finance the budget deficit of UAH 4.2 bn and the redemption of domestic (UAH 0.9 bn) and foreign debt (UAH 0.7 bn).

Proposals to deal with the risks

The comparative analysis of the figures for FDI in Ukraine and other similar to it Central European countries revealed that the potential of the country has not been met yet.[35] Taking into account that the decisions regarding investments in 2002 and following years were made in the preceding period of relatively high real GDP growth and macroeconomic stability (2000-2001), this "still unused" potential gives a ground for the optimistic expectation with respect to the FDI inflow in the future. At the same time, reducing above-mentioned risks would further support these opportunities.

Investment climate

The credibility of the state policy towards foreign investors needs to be improved. The adoption of new laws should not provide a justification for the government to renege previous commitments which provided the basis for past investments.

To solve the problem with the existing VAT overdue debt and to avoid VAT debt accumulation in the future, the VAT system should be improved. VAT legislation should be unified and simplified by reducing the number of legislative documents; there should be no budget-related legislation adopted, interfering with the execution of the current year budget. The government should undertake the review of the tax privileges, abolishing unnecessary tax exemptions, which in turn will allow the tax base and VAT revenues to be increased; in addition, the tax treatment of industries and regions must be unified to the greatest possible extent. The VAT refund procedure should be improved, partly by increasing the effectiveness of the companies' tax auditing processes by generating risk profiles of firms applying for the refunds.

As for the refund of the existing debt, it should be legitimised. The state should mobilize a substantial amount of funds, and moving quickly to undertake VAT reform might allow additional revenue to be generated (for example, by abolishing the tax preferences). The overdue refunds owed to exporters should be paid first.

Privatisation Programme for 2002

"Ukrtelecom" privatisation

An increase of the investment attractiveness of the main telecommunications sector operator "Ukrtelecom" requires the elimination of imperfections of the law on the privatisation of "Ukrtelecom", like article 14 (the requirement to provide telecommunications services for privileged categories even without timely compensation from the state budget). Better regulation of the interconnection between the different

[35] For example, FDI stock per capita in 2000 were USD 857 in Poland, USD 2,048 in Czech Republic, USD 130 in Russia, while about USD 90 in Ukraine (NBU, 2001). The amount of FDI flow per capita in 2000 reached USD 241.4 in Poland, USD 445.0 in Czech Republic, and USD 18.7 in Russia, while in Ukraine this ratio amounted to only USD 12.0.

telecommunication operators and establishment of the independent regulatory agency would contribute to the improvement of the regulatory climate in the sector and increase foreign investors' willingness to participate in privatisation. The adoption of the law on telecommunications would improve transparency of the regulation of the sector. The violation of the international regulatory practices via merging of both regulatory and business activity in the hands of the State Committee on Communications and Informatisation (SCCI) should be stopped as soon as possible. An alternative way to attract foreign investors is to organise a tender for concession of "Ukrtelecom". This would achieve both targets: (1) to generate revenues for the budget and (2) to introduce an efficient owner (very likely through foreign investments).

"Oblenergos" privatisation

In the power sector, privatisation can be enhanced via revision of the tariff-setting procedure. The tariff regulation should properly reflect the cost structure; the lag between requests for tariff increase and the resulting decision should be significantly shortened. The independent role of NERC as a regulatory authority should be further enforced. The regulatory environment can be significantly improved via adoption of the laws *"On NERC"* and *"On the Wholesale Electricity Market"*. These measures would positively influence the bid prices in the privatisation tenders and attract potential foreign investors.

3.5 The risk of an increase in the demand for foreign cash

3.5.1 Quantitative importance

One central characteristic of the Ukrainian economy is that households hold large amounts of foreign currency (mostly US dollars) as the store of value. The main reasons for this phenomenon are the years of high inflation and hyperinflation in Ukraine in the 1990s, which were coupled with a significant devaluation of the national currency. Under such conditions, it became disadvantageous to maintain holdings in the national currency, which then plummeted in value, thus, increasing use of foreign currency.

Although Ukraine has achieved success in fighting inflation and achieving a stable exchange rate, holdings of foreign cash are still high, which can be explained by the public's continuing low confidence in government policy and in the stability of the financial system, and by the "hysteresis effect".[36]

Such a situation, in which households hold a large proportion of their savings in foreign cash, is negative not only because it makes the economy more volatile in times of pressure on the national currency, but also because it can actually cause a devaluation. The main underlying idea is

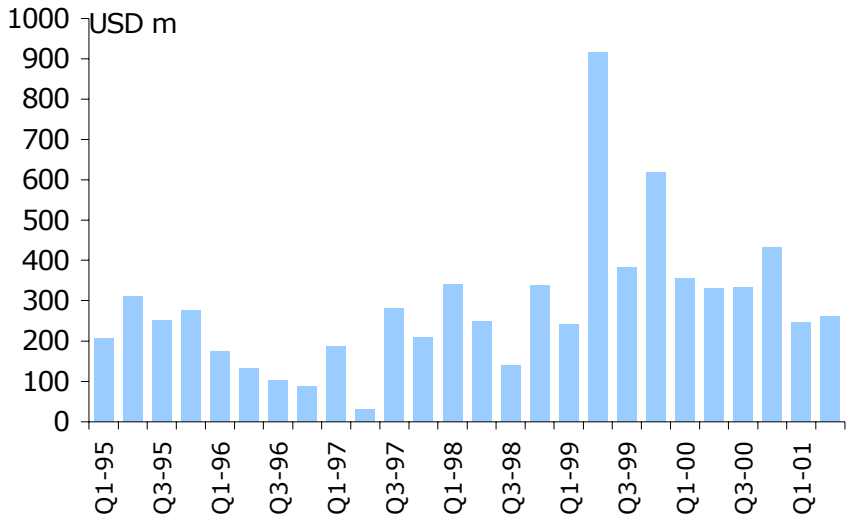
[36] The hysteresis effect is the unwillingness of the public to switch back to national currency even in periods of financial stability due to persistent adaptive expectations from earlier unstable conditions.

that not only real changes in monetary policy or external shocks, but also *expectations* of a devaluation will result in a higher demand for foreign cash. Further, this can develop into currency crises and pressure on the banking system through outflow of deposits in national and foreign currency. Thus, in this chapter we will discuss the sharp increase in demand for foreign currency as a potential negative shock and a possible *reason* for currency crises.

Changes in holdings of foreign cash by private households are currently one of the most important positions within the capital and financial account of Ukraine. The increase in these holdings represent the export of capital and amounted to an estimated USD 1,200 m in 2001, thus, surpassing by far the estimated net inflows of FDI for the same period. As can be seen in Graph 3.4, changes in these holdings are rather volatile over the period[37].

The relationship between holdings of foreign cash and the foreign exchange market is as follows: if private households wish to increase their holding of foreign cash, they buy foreign cash at exchange points. The exchange points buy the cash from commercial banks, which specialise in the cash business. These specialised banks buy foreign currency at the foreign exchange market and bring it to Ukraine. Thus, an increase in holdings of foreign cash means an equivalent increase in the demand for foreign currency on the foreign exchange market.

Graph 3.4
Net inflow of foreign cash into Ukraine



Source: NBU

[37] Estimated from the Ukrainian balance of payments, "other investment" position in capital and financial account (other short-term investment of the assets part).

Due to the combination of high quantity and volatility of changes in holdings of foreign cash, we identify this position as potentially risky for the balance of payments, the foreign exchange market and stability of hryvnia.

3.5.2 Sources of risk

As stated above, net purchases of foreign cash at exchange points are determined to a large extent by *expectations* about the future external value of the hryvnia and by public confidence in commercial banks. If expectations become negative, the likelihood of a currency or banking crisis increases substantially. Very often currency and banking crises occur simultaneously or the one causes the other, and in either case, their consequences are heavily damaging to the economy (in Box 3.4 we provide the Ukraine's own experience of the currency crisis of 1998 and its consequences). Below we discuss sources of risk for external value of hryvnia: first in terms of the currency crisis and then in terms of the banking crisis.

The expectation of a significant devaluation of the national currency or an imminent **"currency crisis"**[38] would lead to a huge increase in the demand for foreign cash by households and, thus, to an increase in demand for foreign currency on the foreign exchange market.

Box 3.4
The Ukrainian currency crisis of 1998

The Ukrainian financial crisis of 1998 had its roots in the excessively expansionary fiscal policy financed by the large-scale attraction of volatile short-term foreign capital.

The major negative effects of the financial crisis in 1998 were the following:

Ukraine experienced significant pressure on the value of its national currency: from August to December 1998, the hryvnia lost almost 36% of its value, falling from 2.18 UAH/USD to 3.42 UAH/USD.

As a result, both domestic and foreign economic agents lost confidence in the Ukrainian government and its financial instruments for a long time thereafter.

Although the Ukrainian banking system escaped a systematic crisis, some of the commercial banks were hurt by their uncovered foreign exchange position (NBU regulations and control were largely responsible for reducing the risk posed by the foreign exchange position). Furthermore, the liquidity of the commercial banks suffered heavily.

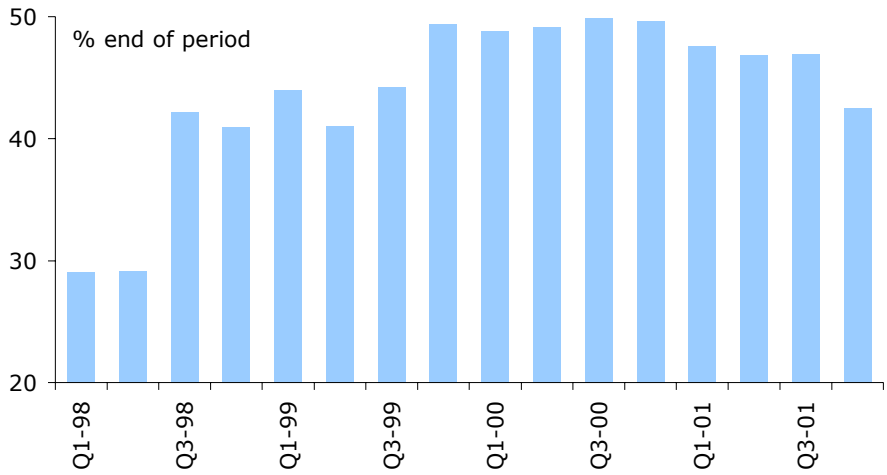
During the last two years, Ukraine has experienced significant economic growth and enjoyed stable foreign exchange rates, while 2001 was also marked by low inflation. These factors, facilitated by sound fiscal policy, led

[38] A currency crisis, according to the IMF's definition, occurs when a speculative attack on the exchange rate of a currency results in a sharp devaluation thereof, or forces the authorities to defend the currency by expending large volumes of international reserves or sharply raising interest rates.

to the more solid external position of Ukraine and should improve the public's expectations concerning the hryvnia's stability. As Graph 3.5 shows, the ratio of foreign currency to national currency household deposits (also referred as the dollarisation indicator) has been decreasing since the end of 2000, but, nevertheless, remains at a relatively high level: by the end of 2001, 42% of all deposits were denominated in foreign currency.[39]

[39] It should be mentioned that the choice to hold deposits in national currency was motivated to a large extent not by increased confidence, but by the fact that real interest rates were higher than for foreign currency. Thus, if the public had to choose between holding cash hryvnia or cash dollars, the advantage of the higher interest rate would vanish and thus, foreign cash would again be the preferred option.

Graph 3.5
Share of households deposits, denominated in foreign currency, percentage of total deposits



Source: NBU; own calculations

If we assume that current positive economic trends continue, we can state that the risk arising from negative expectations of a currency crisis will be reduced further.

Besides expectations of a currency crisis, the expectation of a **"banking crisis"**[40] should lead to a significant increase in the demand for foreign cash. Here, the public would withdraw funds from their bank accounts in national as well as in foreign currency, and the transmission mechanism would work in two ways. First of all, the withdrawal of deposits in foreign currency would increase commercial banks' demand for foreign cash because of their need to supply foreign currency in cash to their clients. Second, while withdrawing deposits in national currency, households would above all choose to save money in foreign cash. Thus, the increase in the demand for foreign cash by private households would also induce the outflow of deposits in national currency.

In 2001 the Ukrainian financial system improved its performance. The aggregate profit of the banking sector amounted to UAH 587 m, and the quality of the banking showed progress as well: the share of bad credits decreased substantially during recent years and fell according to official data from 31% in 1998 to 6% by the end of 2001.[41]

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[40] A banking crisis is a situation in which actual or potential bank runs or failures induce banks to suspend the internal convertibility of their liabilities or which compels the government to intervene to prevent this by extending assistance on a large scale.

[41] One of the sources of such a rapid decrease should be attributed to the substantial accumulation of new credits (in 2000 the increase in the credit portfolio amounted to 62%, in 2001 45%). Also, imperfections in regulatory system could also be blamed.

These improvements resulted in increased public confidence in the Ukrainian financial system. This was reflected in the growth of the volumes of household deposits: total household deposits increased by 68%, while volume of hryvnia deposits achieved a vaulting growth of 91% in 2001.

Despite such improvements in the financial system, it remains quite fragile to shocks, raising concerns about its prospects. The biggest problems lie in the inadequacies of banking sector supervision and the lack of an effective and, even more important, credible deposit insurance system in Ukraine.[42]

3.5.3 Proposals

Turning to the question of the possible measures to reduce the risk of pressure on the hryvnia from increased demand on foreign currency, it would be reasonable to divide them according to sources of risk: expectations of a currency crisis and expectations of a banking crisis.

Proposals to avoid the expectation of a currency crisis

The task of reducing negative expectations of a currency crisis is a difficult one in the short term and, thus, is more of a long-term objective. The basic constituents of such a strategy are the following:

1. General macroeconomic policy aimed at sustainable output growth, sound fiscal policy and institutional reforms.
2. Sustainable strategy of the NBU designed to maintain a predictable exchange rate and low inflation.[43] Particular attention should be devoted to:
    - Providing the public with information about objectives and methods of monetary policy. As emphasised in this chapter, expectations of financial crises constitute a very important determinant of currency stability. Actions of the central bank also play significant role in forming the public's expectations. Not surprisingly, central banks in many countries try to make their objectives and methods clear to the economic agents. For this purpose they develop special programmes of informing the public. This includes regularly printed documents, press conferences on the policy as well as comprehensive Internet sites.[44] To date, the NBU has made substantial positive steps in this direction, and by continuing these measures in Ukraine, it can succeed in making its policy more understandable to the public, thus, eliminating some negative expectations.
    - An increase in the foreign exchange reserves. It is a well known fact that foreign exchange reserves widely serve as an indicator

[42] Currently the deposit insurance fund guarantees repayment of not more than UAH 1200.

[43] For more discussion of the NBU policy, see Chapter 4 of this book.

[44] In some cases, such information policy (also known as signalling), enhanced by high credibility of the central bank allows the latter to conduct monetary policy by *announcing* alterations in it and not by introducing *real changes* in capital movement.

of monetary policy credibility and exchange rate development. With its substantial foreign exchange reserves, the central bank is believed to have better instruments at its disposal to defend domestic currency from sudden short-term shocks. Currently the NBU is accumulating foreign exchange reserves and has announced that it will continue this in the future. Such a policy has produced positive results so far and if continued, would serve to raise the confidence of domestic economic agents as well as of international investors.

- Interventions in the foreign exchange market aimed at stabilising the exchange rate and counteracting any panic resulting from sharp changes. Here we do not advocate artificially restraining the exchange rate, but rather stabilising its development over time.

Proposals to avoid the expectation of a banking crisis

The actions of the government should first of all be aimed at developing the financial system and proper supervision thereof:

1 Supervision of the financial system should be more efficient, if the goal is to build a healthy and competitive sector. It is worth noting that what is more important for sustainable banking development are not strict regulations but strict controls.45 One of the priority-driven tasks should be the identification and control of so-called insider credits, identification of bad and prolonged loans and prohibition of their rollover.

2 Developing the deposit insurance system will make households more confident in the safety of their savings and will reduce danger of the bank runs. Although a deposit insurance fund does exist in Ukraine, it still does not work effectively. The main reason is not even the relatively small amount of repayment that is guaranteed (many times smaller than in developed countries), but the low credibility of the fund in the eyes of the public. Households often do not believe repayment will be made at all from the deposit insurance fund, and, thus, if the fund shows good performance, this would in turn lead to increased trust, accumulation of deposits in the banking system, and a reduced danger of bank runs.

45 See also Chapter 5 for discussion of banking regulation.

4 Second part of the strategy: prevention of a sudden devaluation

4.1 Evaluation of the NBU instruments for prevention of a sudden devaluation

When negative shocks occur, as discussed in Chapter 3, the NBU can

Table 4.1
Gross international reserves in months of imports of goods and services among selected countries of Central and Eastern Europe

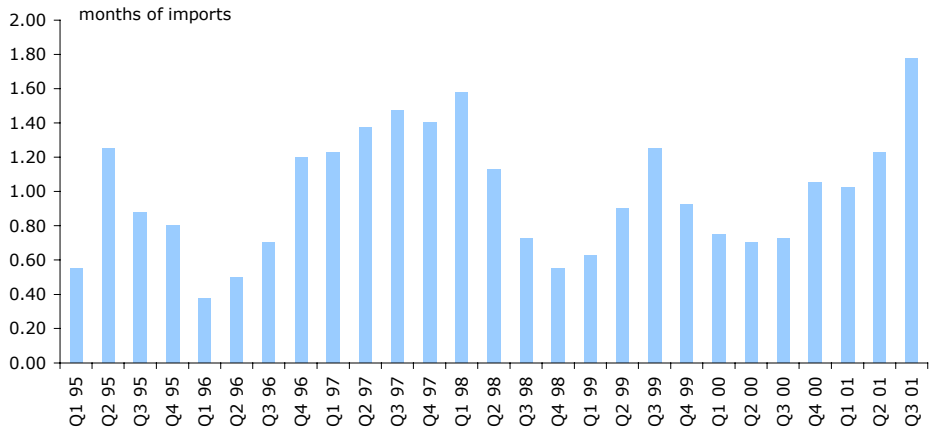
	1996	1997	1998	1999	2000*
Belarus	0.6	0.5	0.5	0.6	0.5
Bulgaria	1.0	4.4	5.4	5.3	5.4
Croatia	2.8	2.7	3.2	3.7	4.4
Czech Republic	4.4	3.6	4.4	4.6	4.5
Estonia	2.5	2.4	2.2	2.7	2.4
Hungary	5.7	4.0	4.1	4.6	4.2
Latvia	2.5	2.5	2.2	2.8	2.6
Lithuania	1.9	1.9	2.7	2.7	2.7
Moldova	3.0	3.1	1.4	2.9	2.6
Poland	6.0	5.8	6.6	6.4	6.5
Romania	0.5	2.0	1.3	1.6	2.1
Russia	1.6	1.7	1.3	1.9	4.7
Slovak Republic	3.1	2.8	2.3	3.1	3.4
Ukraine	1.1	1.3	0.5	0.9	1.0

* Estimation

Source: EBRD (2001): Transition Report

The level of Ukraine's gross reserve in months of imports was lower than the respective ratio of other countries in the region both before and after the crisis of 1998, and has never exceeded a two month import coverage, indicating constantly lower provision of reserves in Ukraine.

Graph 4.2
Gross international reserves in months of imports



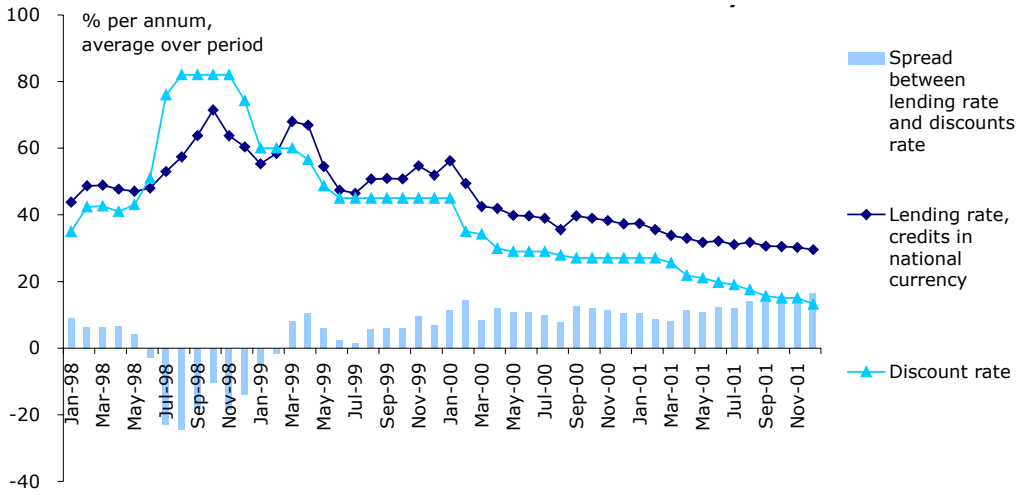
Source: NBU; UEPLAC

4.1.2 Non-feasibility of interest rate policy as an NBU instrument against a sudden devaluation

Currently the interest rate policy cannot be used as an instrument against a sudden devaluation in Ukraine. That is in the first place determined by absence of the NBU market leadership in establishment of short-term interest rates. Changes in discount rate do not significantly influence volumes of commercial banks' refinancing, as well as their interest rates. Other factors including generally low efficiency of the Ukrainian financial system and riskiness of business environment seem to determine interest rate policy of commercial banks, countervailing the NBU discount rate policy.

Graph 4.3

Discount rate of the NBU and lending rate of commercial banks for credits in national currency



Source: NBU

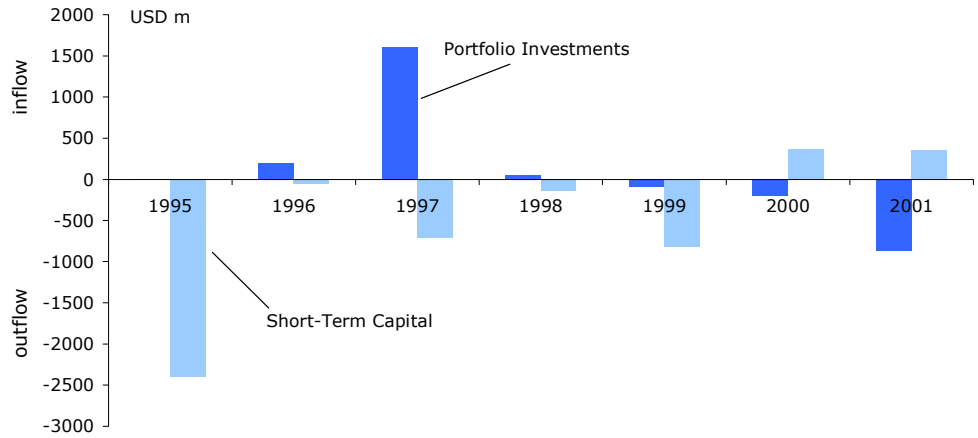
At the time of the 1998 crisis, the increase in the NBU discount rate did not cause an equivalent jump in the lending rates for credit in the national currency by commercial banks (Graph 4.3), and the spread between these rates became negative.

An additional precondition for a workable interest rate policy is a country's ability to attract cross border flows of capital in response of changes in interest rates. However, in Ukraine the balance of short-term capital[47] and portfolio investments (Graph 4.4) is currently quite low. In 2001 the balance of short-term capital reaches 26% of the current account balance. The amount of portfolio investments outflow increased in 2001 to 62% of the current account balance, compared with 17% in 2000. The insignificant balance of short-term capital and portfolio investments' outflow (Graph

[47] Balance of short-term capital is presented in "other investments" position in capital and financial account of the balance of payments. It equals to difference between assets and liabilities excluding mid-term and long-term loans.

4.4) give no reason to expect a boom in short-term capital inflow, if a balance of payments need occurs in the mid-time horizon.

Graph 4.4
Balance of portfolio investments and short-term capital



Source: NBU

4.1.3 Foreign exchange restrictions already very strong

Existing foreign exchange market restrictions form a mutually supporting cycle of transactions, and actually guarantee current market stability. On the one hand, supply of foreign currency is regulated by the mandatory return and sale of foreign currency receipts. On the other hand, demand for foreign currency is tightly bound to the import needs of the economy. Among the list of foreign exchange restrictions, the following are the most important:

1. **Restrictions on transactions with foreign currency.**[48] The national currency is the sole legal tender in Ukraine. Payments between residents and non-residents in foreign currency, which are conducted as a part of trade turnover, are administered only through the Ukrainian authorised banks.
2. **Licensing of transactions with foreign currency.** The NBU issues two types of licences.[49] General licenses are designed for commercial banks and other financial institutions, while individual licenses are provided to residents and non-residents permitting a one-off currency transaction. Among the major exemptions from licensing are import payments, the return of interest or income on credit and investments as well as return of the principal amount of investment if it was discontinued.

48 Decree of the Cabinet of Ministers "On System of Currency Regulation and Currency Control", No. 15-93, 19.02.1993 (as amended of 04.10.2000).

47 Ibid.

3. **Return of export receipts in Ukraine**. Residents' receipts of foreign currency must be deposited in a resident's foreign currency account in an authorised bank within 90 days following the registration of export custom declaration.[50] The only exemptions are the pharmaceutical industry (180 days for return of export receipts) and the space industry (500 days). In other words, the Ukrainian exporters are obliged to deposit the foreign currency they earn in the Ukrainian banking system, thus, increasing the supply of foreign currency.

4. **Mandatory sale of 50% foreign currency receipts**. Judicial persons resident in Ukraine must sell 50% of the foreign currency receipts arriving in their authorised bank account.[51] There are several categories of receipts that are not subject to mandatory sales, including credit in a foreign currency, foreign investments, and deposits in a foreign currency in Ukrainian banks. This restriction constitutes the second level of regulation system ensuring foreign exchange supply at the market.

5. **Limited period for import contracts pre-payment**. Import transactions that require more than 90-days for postponed supply of goods or services require a licence from the NBU. This measure allows keeping foreign currency in the country as long as possible.

6. **Anti-speculation regulations** include:

   - ***Ban on forward contracts and financial derivatives*.** All transactions with fully convertible currencies[52] and all cashless purchases of foreign currency with hryvnia are conducted only as today, tomorrow, or spot (delivery in two days) transactions. All forward contracts as well as the use of financial derivatives are prohibited.

   - ***Control of motives behind currency purchases***. All applications to make purchases of foreign currency should be accompanied by the relevant documents that prove the non-speculative character of the purchase. All purchased currency must be used in line with claimed objective within five working days of the currency's receipt. If residents violate the five-day limit, the currency is re-sold on the inter-bank market, and any positive difference due to foreign exchange rate changes is transferred to the state budget, while any negative difference is accounted as a loss for the purchaser.

   - ***Ban on bank foreign currency speculation***. Authorised banks are required to submit exactly specified claims for purchases or sales of foreign currencies on the market before the trading session

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50 Law of Ukraine "On Order of Payments in Foreign Currency", No. 185/94-BP, 23.09.1994 (as amended of 16.03.2000).

51 Decree of the NBU Council "On Introduction of the Mandatory Sale of Receipts in Foreign Currency Received by Residents – juridical persons", No. 349, 04.09.1998.

52 Decree of the NBU "On Ratification of Classifier of Foreign Currencies", No. 34, 04.02.1998 (as amended of 07.02.2000).

begins. It is forbidden for the banks to buy and sell the same currency during an individual session, as well as to exceed the claimed amounts.

This situation provides little room for manoeuvre for the NBU should pressure for a sudden devaluation occur. A further tightening of the regulations like the introduction of 100% sale of export receipts or a shortening of the period for import contract prepayment will negatively affect the balance of payments and economic development as a whole. If market restrictions become stronger, there is a high risk of export receipts not being returned to Ukraine and of a blossoming of spurious accounting in international contacts.

4.2 Proposals for strengthening the NBU's ability to prevent a sudden devaluation

4.2.1 Further accumulation of international reserves

International reserves remain the most important and readily available of the NBU's instruments for preventing a sudden devaluation in the hryvnia. The further accumulation of reserves requires both the maintenance of a positive current account balance and continued finance from international financial institutions.

To maintain a positive current account balance, it is necessary to sustain a high rate of growth in Ukrainian exports. Taking into account the dominance of price-elastic products in exports and the possible relative high rate of inflation in Ukraine, the gradual nominal devaluation of domestic currency would be an important prerequisite for high export performance. At the same time, a significant real appreciation should be avoided. In addition, domestic industries should be further restructured, enhancing their non-price competitiveness, and export restriction conditions for long-term stability of current account balance should be abolished. Detailed discussions of these measures for specific segments of the market can be found in Chapters 3.1 – 3.5.

Continued international finance, mostly from the IMF programmes, is important in ensuring the stability of reserves. Firstly, the IMF credit constitutes a significant share of reserves. For instance, the most recent payment in framework of the Extended Fund Facility programme increased liquid international reserves by 14%. Secondly, international finance does not depend on domestic market forces providing an alternative source of funds for the NBU. The inflow of finance from international institutions depends on the fulfillment of existing obligations and the punctual execution of the conditions associated with the IMF loans.

4.2.2 Improvement of the NBU's influence on commercial interest rates

In order to improve the influence of the NBU on commercial interest rates, it is necessary to lessen the role of other factors in their determination like

limited supply of credits and the high risk premium charged by commercial banks.

The development of the financial intermediation network is necessary to satisfy the increasing demand for credit within the growing economy. However, this also requires an increase in bank supervision to ensure an appropriate level of risk management. The stability of national legislation, contract enforcement and property rights protection are also very important for credibility of both financial intermediaries and their clients.

4.2.3 Gradual relaxation of foreign exchange market restrictions

An immediate relaxation of existing foreign currency restrictions against the background of Ukraine's still insufficient international reserves and the absence of an interest rate policy could create significant foreign exchange imbalances. Market liberalisation may not only result in the withdrawal of funds from other financial activities, but may also expose the market to speculative attacks that the NBU cannot withstand.

In the long run, the foreign exchange market has to be liberalised. However, the establishment of a sound financial system and an increase of risk hedging instruments are necessary prerequisites for a free foreign exchange market.

In the middle term, the strengthening of the NBU's ability to prevent a sudden devaluation also requires a gradual discharge or relaxation of existing restrictions. A gradual release of the mandatory sale of export receipts is proposed as the first step. This would create a manageable pressure on the foreign exchange rate and would allow the NBU to determine the speed of the devaluation of domestic currency necessary. Additionally, it will partially reduce the direct intervention of the state in the financial decisions of enterprises with regard to foreign currency holdings.

5 Third part of the strategy: reduction of the negative effects of a sudden devaluation

This chapter proposes the third part of the strategy for ensuring external stability in an open economy, namely a set of measures for reducing negative effects of a sudden and rapid devaluation for the economy. In the case of Ukraine, there would be two major negative effects of a sudden devaluation: a banking crisis and an unbearable fiscal deficit. Both these effects are linked to the phenomena of financial dollarisation – the denomination of a significant share of banks' assets and liabilities in foreign currency, which is to a large extent observed in Ukraine. Indeed, the higher the level of financial dollarisation in a given country, the deeper and more harmful these effects might be.

In this chapter, we discuss risks of banking crisis and fiscal problems that may result in Ukraine should a sudden devaluation occur. Furthermore, we propose set of measures that the National Bank of Ukraine (NBU) and the Ukrainian government could implement in order to minimise these negative effects.

5.1 Negative effects of a sudden devaluation

5.1.1 Banking crisis

From a historical viewpoint, a sudden devaluation caused in many countries not only a currency crisis, but also a banking crisis. In such a situation a substantial devaluation of the local currency leads to a disruption of the financial markets. A study by the IMF (IMF (1998): World Economic Outlook) shows that between 1975 and 1997 there were 158 currency crises and 54 banking crises, and four-fifths of these were registered in emerging markets. Due to recent financial liberalisation, banking crises were more often observed during the last decade of the period. Although banking crises occurred less frequently than currency crises, they tended to impact more severely on the real economy. Caprio and Klingbiel[53] report that on average, currency crises resulted in a 7% loss of output, while banking crises on average caused a GDP to slump by 14%, causing an expansion of non-performing loans up to 10-15% of total loan portfolio. The recovery to pre-crisis levels takes on average more than three years.

The financial system's exposure to systemic credit risk in the case of a sudden and significant devaluation is determined by the degree of financial dollarisation. In the case of a sudden devaluation, the credits issued in foreign currency might not be paid back, thus, causing a banking crisis.

[53] Capiro, Gerard and Daniela Klingebiel. (1996): Bank Insolvencies: Cross-Country Experience. Policy Research Working Paper 1620, Washington, World Bank, July.

Box 5.1 lists mechanisms through which negative shocks can result in banking crises.

Box 5.1
The links between a sudden devaluation and banking crisis

High share of loans in foreign currency. If banks issue a high share of loans in foreign currency, then sharp devaluation will negatively affect borrowers' abilities to pay back their loans. Thus, the increasing share of bad loans will reduce the banks' profitability.

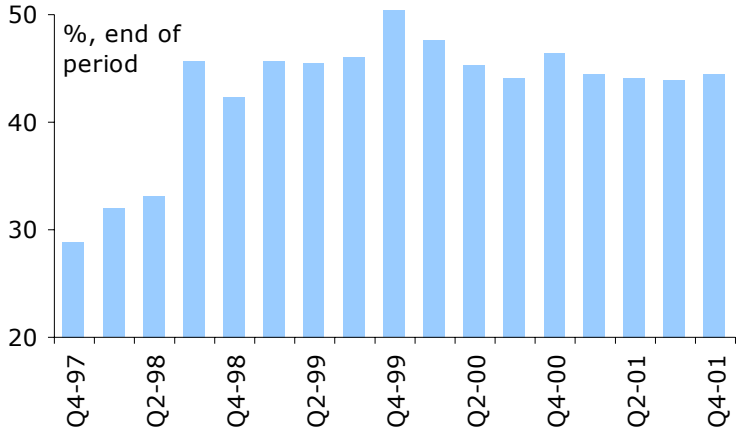
Mismatch of the currency. If banks generally borrow in foreign currency and lend in local currency, depreciation will lead to higher payments on deposits and relatively lower returns from credit portfolio.

Mismatch of the duration. Commonly, financial institutions attract short-term liabilities, while assets have a longer-term nature with fixed return. Sharp devaluation following inflation will push banks to increase rates for deposits, but returns on their credit portfolio will not be adjusted so quickly.

Bank run. A national currency devaluation (or even the expected danger of a devaluation) would induce depositors to withdraw their holdings from the banks – not only in domestic currency, but in foreign currency as well, due to negative expectations concerning banks' solvency. This leads first of all to liquidity problems of commercial banks and second, to an increased demand of foreign currency.

The financial crisis in the second part of 1998 intensified pessimism regarding Ukraine's national currency. Although the Ukrainian banking system escaped a systemic crisis, some commercial banks were hurt by their vulnerable foreign exchange position (NBU regulations and control played a central role in lowering this risk). Since the crisis, commercial bank crediting in foreign currency has increased substantially, as shown in Graph 5.1.

Graph 5.1
Foreign currency denominated credits as a share of total credits provided by commercial banks



Source: NBU; own calculations

This situation persists up to the present day and may be considered as quite dangerous, because it signifies that when a sudden and rapid devaluation occurs, the stock of non-performing credits might increase significantly.

At the same time, the share of foreign currency denominated deposits in total commercial banks deposits is also fairly high. This fact sheds light on another aspect of financial dollarisation in Ukraine, as discussed already in Chapter 3.5.

As Graph 3.5 shows (page 46), before the 1998 crisis, hryvnia deposits prevailed in the deposit structure of banks. However, the crises made foreign currency deposits more attractive: during 1998-1999 their share expanded from 29.8% to almost 49.4%. In spite of the economic recovery that started in late 1999 and the exchange rate stability, the portion of foreign currency deposits remained high reflecting so-called "dollarisation hysteresis" effect.
For both sides of banks' balance sheets, a currency choice means hedging against inflation and foreign exchange risk. However, financial dollarisation weakens the safety of the banking system, increasing exposure of the banks themselves to a sudden devaluation.
It is worth to say that NBU has already introduced some policy measures that are mostly oriented on increasing the market share of hryvnia and indirect prevention of banking crisis.

Box 5.2

Current NBU regulation on foreign currency transactions by commercial banks

Aiming to minimize the effect of negative shocks on the financial sector NBU introduced the following regulation:

- *Benchmarking "uncovered foreign currency positions" of commercial banks.*[54] At present, the difference between a bank's assets in a single foreign currency and its total liabilities in the same currency is limited by the NBU regulation. This restriction, although limiting the scope of banks activities, to some extent curbs the possibility of bank crises. Nevertheless, this benchmarking does not cover all related risks (see Box 5.1). In particular, it does not eliminate the possibility that credits are not paid back that, in turn, would imply banks' insolvency in case of negative shock.
- *Lower reserve requirements for deposits in national currency.* This is a useful policy in the current state of the Ukrainian banking system, since it gives banks the impetus to attract more funds in local currency. Moreover, the share of dollar loans shrinks while these credits become relatively more expensive resulting in a drop in demand. However, this policy itself does not make hryvnia more credible and is merely an auxiliary method that cannot bring about real structural changes to financial intermediation.

[54] Uncovered foreign currency position ("vidkryta valiutna pozytsiya") is the situation when total assets in a single foreign currency do not equal total liabilities in the same foreign currency. Uncovered foreign currency position implies exchange risk, as the exchange rate fluctuations would lead to different changes in assets and liabilities of a bank, thus, altering the bank's charter capital.

Current NBU regulation of commercial banks operations with foreign currency is effective enough for preventing speculative attacks on the national currency under the currency economic conditions. At the same time, quite severe restrictions significantly limit the activities of commercial banks and, thus, diminish banks' incentives, not allowing market forces to develop. The major lines of banking regulation on foreign currency transactions are presented in Box 5.2.

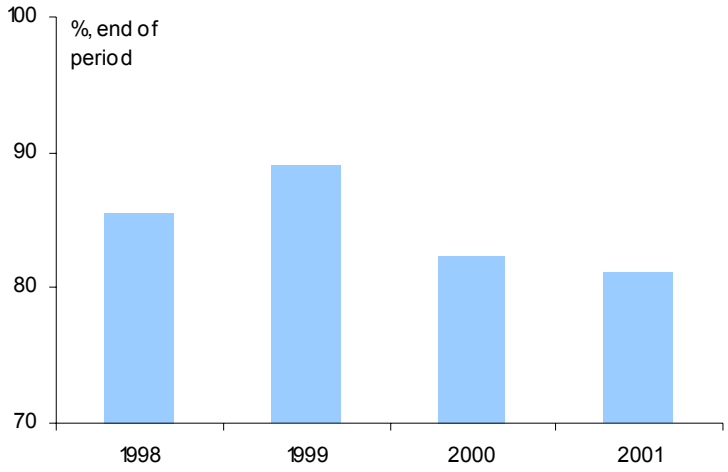
The current regulation should be considered as too restrictive. A proposal for a gradual relaxation of the NBU policy in this regard will be presented at the end of this chapter.

5.1.2 Fiscal problems

Another negative effect of a sudden devaluation is a fiscal crisis. In case of a sudden devaluation, additional expenditures would be required to service public debt denominated in foreign currency. Consequently, the unexpected increase of the expenditure side of the fiscal bill could lead to the growing fiscal deficits.

The share of the foreign currency denominated state debt in total state debt of Ukraine is significantly high to put the country under a risk of fiscal crisis. As of the end of 2001, debt in foreign currency comprised 81% of a total debt (or about 30% of GDP[55]). Moreover, regular servicing of the foreign currency denominated debts represents a substantial part of the expenditure side of the central budget: this amounted to about 12% of total expenditures in 2001, and an increase is planned for 2002.

Graph 5.2
The ratio of foreign currency denominated state debt to the total state debt of Ukraine



Source: MEU; NBU; own calculations

[55] Foreign currency denominated debt is estimated as the sum of external state debt and foreign currency denominated obligations of government to the NBU and commercial banks.

As shown in Graph 5.2, the ratio of foreign currency denominated state debt to total state debt reached its peak in 1999 when the state failed to attract internal borrowings and turned to international lenders.

The crisis of August 1998 seriously undermined the creditworthiness of state borrowing on the internal market (Box 5.3). The forced restructuring of the state bonds, conducted in the fall of that year, almost stopped voluntary lending to the government and deprived the Finance Ministry of the opportunity to borrow funds from domestic investors.

Box 5.3
Development of internal state debt in Ukraine

The Treasury bills (T-bills) market in Ukraine was introduced in late 1995. Initially the sales were small, but relative macroeconomic stability in 1996-1997 and high yields allowed the government to expand the market. Up to the end of 1997 internal borrowings constituted around 8% of GDP, thus, emerging as the main source for covering the large budget deficit.

Perceived as posing a low risk of default, T-bills attracted foreign investors, who held approximately half of them. Purchases of T-bills were almost the only source of foreign portfolio investment in Ukraine, amounting to around USD 1.5 bn in 1997 and at the beginning of 1998.

The Asian financial crises led to a distrust towards emerging markets and pushed the Ukrainian government to increase the yield to 50% by the end of 1997 in order to keep up with the current volumes of borrowings. The situation changed abruptly in the second half of 1998 with the Russian crisis. As foreign investors began to repatriate their holdings, foreign exchange reserves of Ukraine became increasingly depleted, and the government was no longer able to roll over the debt. In the fall of 1998, it had to announce that it planned to restructure its T-bills borrowings.

Currently internal debt instruments develop very slowly. Nevertheless, with accurate payments of debt obligations, internal borrowings have great potential to become an important instrument for servicing budget deficit. Shifts in the currency composition of state debt toward the domestic currency would prevent possible negative effects of a sudden devaluation.

5.2 Proposals to reduce possible negative effects of a sudden devaluation

The aim of all proposals put forward here is to reduce the possible negative effects of a sudden devaluation and lessen the vulnerability of Ukraine to negative shocks.

Since financial dollarisation is identified as a major factor in risks, the policy measures should focus on reducing the usage of foreign currency as a unit of account in debt contracts. This can be achieved by creating incentives to use hryvnia debt without introducing new restrictive measures on dollar usage. There are two basic policy lines here: prevention of a banking crisis and prevention of a fiscal crisis. We present proposals for both of these in the remaining part of this chapter.

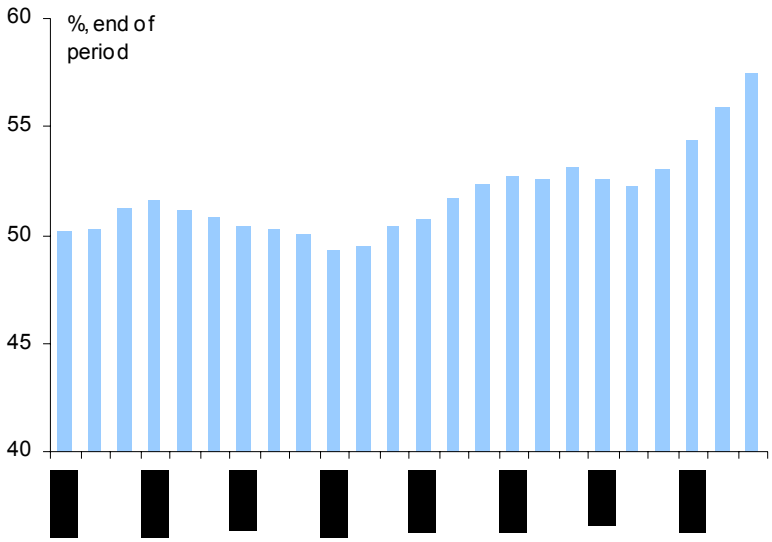
5.2.1 Prevention of a banking crisis

Proposal 1: Continuation of current NBU policy aiming to preserve low inflation and a predictable exchange rate

The stability of macroeconomic expectations is a key determinant of banking stability. The well-balanced policy measures of the NBU during 2000-2001 have already produced positive results, which are reflected in a improvement of market expectations.

In 2001, hryvnia increased its market share. Several years of exchange rate stability helped to regain public trust in the national currency. As seen in Graph 5.3, during 2001 alone the share of hryvnia-denominated deposits grew by almost 7 percentage points, significantly reducing the vulnerability of the banking system to a sudden devaluation.

Graph 5.3
Hryvnia-denominated deposits as a share of the total households deposits attracted by commercial banks



Source: NBU; own calculations

In addition, an important indicator of the progress of "de-dollarisation" in Ukraine is an increase in long-term deposits[56] in national currency: their share in total deposits grew from 7.1% as of the end 2000 to 13.8% at the end 2001.

As the economy embarked on a growth path, credits in national currency began to grow as well. Although credits in foreign currency continued to posses a significant share in total credits to the economy (see Graph 5.1),

[56] According to the classification by the National Bank of Ukraine, long-term deposits (or credits) are the deposits (or credits) for more than a one-year period.

domestic currency credits grew at higher rates, diminishing the potential for negative effects of a sudden devaluation.

Another noteworthy positive aspect is that the share of long-term credits in national currency in total credits to the economy is beginning to increase (by 1.4 percentage points during 2001), which signifies economic agents' positive expectations of macroeconomic stability.

Proposal 2: Gradual relaxation of the banking regulations on conducting transactions with foreign currency

Current regulations of banking activities that limit transactions with foreign currencies should not become a part of the long-term strategy. In particular, it seems to be necessary to relax gradually the benchmarking "uncovered currency positions" of commercial banks and eliminate the differences between reserve requirements for deposits in foreign and national currency. At the moment, the regulation is good, as it minimises the effect of negative shocks on the financial sector. However, these measures are only a part of a short-term stabilisation policy, that should not, however, be maintained for longer time periods because they cannot effectively substitute for a broad economic strategy targeting exchange rate stability. Therefore, an effective banking regulation should be the subject of continuing review and gradual relaxation depending on the extent of the financial market development.

Proposal 3: Achieving consistency with regard to signalling of policy steps and improving of information sharing with the public

The necessary precondition for public confidence in monetary and exchange rate stability is that the policy decisions of the central bank are predictable and comprehensible. This in turn would eliminate the negative expectations that still persist within the economy. Sudden changes in regulation could severely undermine trust in the NBU, and this would be difficult to re-establish.

Undoubtedly, the National Bank is among the most open administrative bodies in Ukraine. It releases annual statements on monetary policy and provides market information to the public irregular intervals. This increased transparency has contributed significantly to the public's increasing confidence in the national currency. Nevertheless, announcements and market comments of NBU officials often appear as inconsistent, causing some confusion among economic agents. In addition, monetary aggregates in 2001 by far exceeded the year's targets, raising new concerns as to whether the NBU had adhered strictly to its policy goals.

The NBU should always present one single, clear point of view on any market changes; thus, fostering public confidence in the consistency of its policies. In addition, any political decisions should be as predictable as possible, and should clearly make reference to the goals toward which they are oriented. Also, the NBU should improve public access to information even at lower levels of decision-making to improve transparency and promote a stable economic development.

Proposal 4: Strengthening the NBU's de-facto independence

The level of independence of central bank in conducting monetary policy is of important influence on the confidence in the stability of a national currency. The more independent the central bank is, the more predictable would be its policy decisions and, thus, the higher would be confidence in the national currency and its share on the market.

According to Ukrainian legislation[57], the NBU enjoys a high level of independence from the government while conducting monetary policy. In reality, however, this independence is somehow reduced by the existence of a significant government's debt[58] vis a vis the NBU, which has been a source of disputes between the NBU and the Ministry of Finance. Payments by the Ministry of Finance to the NBU, such as redemption of debt or interest payments, are not only important in fiscal, but also in monetary terms, because they reduce the money supply. Thus, a decision by the Ministry of Finance not to fully service its debt towards the NBU is in economical terms equivalent to money creation and must, therefore, be considered as a monetary decision, which was not taken by the NBU, but by the Ministry of Finance.

Therefore, the government should make sure, that in future this de facto dependency of the NBU on the Ministry of Finance will never be abused. Each time this debt becomes a bone of contention, serious concerns about the de facto independence of the NBU arise and the confidence in the national currency is reduced. For this reason, we propose that in the future the government fully services it debt with the NBU.

5.2.2 Prevention of a fiscal crisis

Proposal 1: Continuation of reorientation towards state borrowings in national currency.

In order to reduce the negative effect of a sudden devaluation on fiscal stability, the government should continue increasing the share of the state debt denominated in national currency in total state debt. Developing the market for government bonds would provide new opportunities to invest excess liquidity and stimulate reallocation of foreign currency savings into securities denominated in hryvnia.

The well-organised debt policy during the last two years brought progressive changes in the structure of the state debt and an improvement of the debt indicators. Indeed, the successful restructuring of the external debt to commercial creditors in 2000[59] and signing the agreement on debt restructuring with the Paris Club of creditors in 2001 helped to reduce the currently heavy external debt service by extending it over a longer period of time and reducing the debt amount itself. The agreement with the Paris Club enabled Ukraine to start talks on debt restructuring with

57 Law on the NBU, No. 679-XIV, 20.05.1999.

58 This debt includes credits as well as POVDP-bonds, which are held by the NBU. The total debt amounted to roughly UAH 20 bn by the end of 2001.

59 The government issued US dollar and euro denominated external obligations with an average maturity of 4.5 years.

Turkmenistan. The mutual settlement with the Russian Federation[60] resulted in the further reduction of the state debt by about USD 1.1 bn. The budget surplus in 2000 was partially directed at repaying the debt. The government is continuing to co-operate with the IMF on the EFF programme and has managed to obtain the World Bank's approval for its medium-term borrowing strategy.

At the same time, the government paid attention to the development of the internal debt market[61], both primary and secondary, aiming to increase the share of internal borrowings. As a result, the portion of foreign currency denominated state debt in the total state debt decreased from 89.0% as of the end 2000 to 81.1% at the end of 2001, reducing the possibility of unbearable fiscal problems in case a sudden devaluation happens.

According to the announced plans of the Ministry of Finance, both internal and external sources of state borrowing are to be developed during the coming years. Within the framework of the state debt strategy, in 2003, the Ukrainian government aims to attract up to USD 500 m in foreign-currency denominated debt from commercial creditors. Nevertheless, the internal sources of hryvnia-denominated state borrowings should be given the priority in the government's debt policy.

[60] The settlements have been negotiated according to Ukraine-Russia intergovernmental agreement as of 28.05.1997.

[61] The government continues to issue new internal debt instruments. In particular, in 2001 new short and medium-term government bonds were issued. There are plans for 2002 to offer new treasury bills to the Ukrainian public. In addition, the government revealed plans to introduce issuance instruments in order to facilitate the safety of insurance companies and non-state pension funds.

6 Summary

External stability is of crucial importance for the economic development of any country and should be a major goal of economic policy. At present, Ukraine enjoys a high degree of external stability, combining a current account surplus, increasing international reserves and a stable currency. However, this situation does by no means imply that stability will also prevail in the future. Thus, despite the current stability, Ukraine needs a consistent strategy for ensuring external stability in the future. This book presents such a strategy, consisting of three complementary parts.

6.1 First part of the strategy: prevention of negative shocks

The first part intends to prevent negative shocks in the balance of payments. In our view, the most risky positions in the balance of payments are metallurgical and agricultural exports, energy imports, foreign direct investment (FDI), and changes in holdings of foreign cash by private households. In Chapter 3, we identify the major sources of risks for each of these five positions and put forward proposals to deal with these risks.

The **metallurgical** sector contributed significantly to the export expansion during recent years and represents about 40% of total exports. The development of this sector helped Ukraine to regain external stability und economic growth. However, we think that this development is not sustainable and a drop in metallurgical exports is quite likely. We distinguish between internal and external reasons that support our thesis of unsustainability in this sector.

Let us start with the internal risks. First, the technology used in large parts of the sector is outdated. Almost half the industry's output is produced by open-hearth furnace, a method which was completely phased out in Western countries in the eighties and which has also been replaced to a large extent in emerging economies. Second, mainly due to high energy costs, the industry is not able to add much value during the production process. Energy amounts to almost 30% of production costs, instead of less than 10% in Western countries. As a consequence, profits in the industry are rather poor. Third, a subsidisation of the industry is taking place. In addition to enjoying tax and other fiscal privileges, it is likely to be subsidised through the energy sector.

We also identify three external risks concerning metallurgy. First, the slowdown in the world economy implies a reduction in foreign demand for Ukrainian products. Second, the competitive position of Ukrainian enterprises could worsen. Strong competition from firms in Russia, China and India is to be expected. Third, metallurgical exports might be hurt by the introduction of anti-dumping measures and by higher tariffs like the ones introduced in the USA in March 2002.

The internal and external risks facing the metallurgical industry in Ukraine make it clear that the current situation of this industry is not sustainable. For this reason, we **propose a restructuring of the metallurgical industry**, with the following features:

1. **Capacity should be reduced by jettisoning outmoded production technologies. The adequate level of reduction should be determined primarily by the expected internal, not external, demand.**
2. **The existing capacities should be modernized.**
3. **In order to avoid deterrent action by foreign importers, Ukraine should tackle the subsidisation issue by creating more transparency and reducing subsidies to the metallurgical industry.**
4. **Last but not least, better co-operation with the European Union and the World Trade Organisation is needed in order to defend the interests of metallurgical exporters.**

Agriculture and the food processing industry have contributed disproportionately to recent economic growth and account for roughly 8% of total exports. Furthermore, around 20% of total FDI inflows since independence went to the agri-food sector.

In our view, three main risks exist for Ukrainian exports of agricultural and food products. First, exports to Russia could decrease significantly. Russian trade policy is erratic and unpredictable, so that protectionist measures cannot be ruled out in the future. Second, other importing countries might undertake measures to defend their own producers. Ukraine's ability to defend itself in such cases is quite limited as it still has not joined the WTO. Third, failure to ensure that Ukrainian agricultural exports meet the strictest international quality standards (for example, Ukrainian products that show high levels of radiation) could have a devastating effect on export demand.

The agri-food sector does not only involve risks, but provides also significant opportunities for further development and for sustainably higher exports in the future. This is especially true for grains and oilseeds. If the restructuring process in the farm sector continues and the efficiency of agricultural production increases, considerable growth in grain production can be expected. This could easily boost grain exports by USD 700 m or more per year in the medium term. Such a development would, in turn, make the agri-food sector more attractive to potential foreign investors, thus, leading to an increase in FDI.

In order to combat risks and harness opportunities in the **agri-food sector**, several recommendations are proposed:

1. **Attaining WTO membership as soon as possible should be a major priority of Ukrainian economic policy. The next round of WTO negotiations is expected to focus on agriculture. As a member of this organisation, Ukraine would be able to defend its interests and ensure better access to foreign markets.**
2. **Ukraine should continue to open its markets to new technologies that are relevant to agriculture and food processing, such as**

seeds, chemicals and machinery. This would ensure that agri-food production continues to expand and diversify, thus, ensuring higher levels of exports.

3. **The improvement of the country's infrastructure is also crucial to harnessing opportunities. At the moment, the cost of exporting agricultural products is very high, mainly due to poor infrastructure. Better transport facilities and lower costs for exporting products would stimulate production and exports.**

The **energy** sector is of particular importance to Ukrainian foreign trade. Energy imports account for almost half of total imports, and revenues for energy transit to Western Europe represent about 9% of total exports. At the same time, the energy sector in Ukraine is highly inefficient and intransparent, resulting in a substantial waste of energy. This can be illustrated by the fact that Ukraine needs 27 times more primary energy to produce one US dollar of output (GDP) than Germany. The external importance combined with the waste aspect make it clear that this sector involves important risks as well as opportunities for the external stability of Ukraine.

We identify two major risks in this sector, both dealing with natural gas. First, the volume of natural gas transited through the pipeline ("transit volume") could decline, mainly due to a lack of investment in the pipeline and the construction of bypassing pipeline (Yamal-1) through Belarus and Poland. As a consequence of declining transit volumes, export revenues for gas transit would go down. Second, the continuation of current settlement practices with gas imports, which are based to a large extent on barter, could lead to higher gas expenditures. In order to quantify these risks in the medium term, we construct three scenarios that combine the two risks. For this quantification, further assumptions are made, such as an increase in oil imports.

In scenario 1 ("status quo") we assume no changes in transit volumes or barter arrangements. Under such an assumption, the yearly current account would worsen by USD 280 m. In scenario 2 ("worst case"), transit volumes decline and barter modalities do not change, leading to a worsening of USD 450 m in the current account. Scenario 3 also assumes a decline in transit volumes, but assumes a complete abolishment of barter transactions in the gas sector. As a consequence, the expected worsening of the current account is reduced to USD 235 m.

In order to reduce **energy related risks** and harness opportunities, we put forward a number of proposals:

1. **The gas transactions should be completely switched to cash settlements and barter should be abolished. If it followed this advice, Ukraine would improve its yearly current account by an estimated USD 215 m (difference of results in scenarios 2 and 3) and, thus, reduce risks.**

2. **The introduction of hard budget constraints for energy consumers and the improvement of the metering system would contribute to reducing the enormous waste of energy in Ukraine. As a consequence, imports of energy would decline and energy related risks would be reduced.**

3. **A further proposal concerns the transit pipeline. Investment in this pipeline is badly needed, to ensure transit capabilities and to show producer countries in the east as well as consumer countries in the west that they can rely on Ukraine. Given the inability of Naftogaz to invest in the transit pipeline, Naftogaz, Gazprom and strategic western partners should form a consortium that would be able to manage the pipeline operations efficiently.**

Net **foreign direct investment (FDI)** is an important source of foreign exchange in Ukraine. A reduction in the net inflow of FDI into Ukraine would not only be harmful for capital accumulation and economic growth, but also for external stability. We identify two main risks for decreasing FDI in Ukraine, namely an absence of improvement in the investment climate and a failure to fulfil the government's privatisation plan.

Some positive steps have been undertaken to improve the investment climate in Ukraine during the last two years. The reform of the judiciary system will contribute to better enforcement of contracts, which is of critical importance for investors and business people in general. Furthermore, the expected Tax Code will lower tax rates and simplify tax legislation, thus, reducing the tax burden for business and making investment projects more profitable. Despite these important steps forward, the investment climate in Ukraine remains poor. The state often does not act as a reliable partner for foreign investors and business people. The huge government debt to exporters and other enterprises in the context of VAT refunding adds considerably to the bad image of the state and should be considered as an impediment to FDI.

Privatisation accounts for roughly half of FDI inflows into Ukraine. Thus, a failure to privatise state enterprises is a further risk for decreasing FDI. The biggest planned privatisations for the year 2002 are Ukrtelekom and 12 power distribution companies (oblenenergos). Ukrtelekom should provide about USD 550 m and the oblenergos around USD 300 m in FDI. A failure to sell these companies would negatively influence FDI and public finances.

In order to reduce **FDI related risks** we propose the following:

1. **Improve the investment climate in Ukraine. Especially the credibility of the state towards foreign investors should be improved. On this issues much was published. Here we propose in particular, that a long-term solution to the VAT problem should be found. We propose an improvement in the quality of VAT legislation to avoid interpretation problems with existing laws. Furthermore, the efficiency of the tax administration should be enhanced, by generating risk profiles of firms applying for the refund. In addition, the number of exemptions from VAT should be drastically reduced.**
2. **Considering the privatisation issue, we propose that the imperfections of the Law on privatisation of "Ukrtelecom" be eliminated, such as the requirement to provide telecommunication services for privileged categories even without timely compensation from the state budget (Article 14).**

3. **With respect to the oblenergos, the tariff-setting procedure should be revised to properly reflect the cost structure of the enterprises.**
4. **In some sectors dominated by former state monopolies, like telecommunication and enegry, the regulatory environment should be improved. Major steps should be directed to increasing the de facto independence of NERC and the establishment of an independent regulatory agency, taking over from SCCI the regulatory functions in the telecommunication sector. This would allow to separate regulatory and business functions.**

Ukrainian households keep a large share of their savings in form of **foreign cash.** The demand for foreign cash (mostly US dollars) is high and volatile. In the year 2000 alone, net inflow of foreign cash amounted to USD 1.2 bn. An increase in the demand for foreign cash would have major effects on the balance of payments and on external stability.

One major risk for an increase in the demand for foreign cash is the expectation of a currency crisis. If people expect a significant devaluation of the hryvnia towards the US dollar, they will rush to buy US dollars and, thus, sharply increase the demand. The expectation of a banking crisis should, however, also be seen as a risk. In this case, households would withdraw their deposits and convert them into foreign cash.

In order to **avoid the expectation of a currency crisis**, we propose the following measures:

1. **The general macroeconomic policy should be aimed at internal and external stability. In particular, public finance should be sound and significant deficits should be avoided.**
2. **The public should be better informed about the objectives of exchange rate policy, which are not clear at the moment.**
3. **A further increase in international reserves of the NBU would also help to avoid the expectation of a sharp devaluation.**

In order to avoid expectations of a banking crisis, the following proposals should be implemented:

1. **The supervision of the financial system should be improved considerably. In particular, measures must be taken to identify what are known as insider credits, which are quite risky for individual banks and the system as a whole.**
2 **The development of a credible deposit insurance system would make households more confident about the safety of their savings.**

The first part of the strategy, the prevention of negative shocks, is of paramount importance for maintaining external stability in Ukraine. However, even the best of policies cannot completely rule out negative shocks. **For this reason, the first part of the strategy must be complemented by two further parts.**

6.2 Second part of the strategy: prevention of a sudden devaluation

The second part of the strategy is designed to prevent a sudden devaluation of the hryvnia that would result from a negative shock in the absence of central bank action. The assessment of the effectiveness of the NBU's instruments to prevent a temporary devaluation in Chapter 4 leads to the following conclusions. First, the level of international reserves is still insufficient to effectively combat negative shocks. Gross international reserves cover less than two months of imports, considerably less than the recommended three months. Second, interest rate policy cannot currently be used to defend the external value of the hryvnia. The interest rates of commercial banks are presently not tightly linked to the NBU rates, and short-term capital flows with foreign countries are rather limited. Third, the administrative restrictions on the foreign exchange market are already very strong. Further tightening, for example by increasing the mandatory sale of foreign currency receipts, would be harmful to the economy. In summary, the current ability of the NBU to defend the value of the hryvnia is quite limited.

In order to **improve the ability of the NBU to prevent a sudden devaluation**, we propose a number of measures:

1. **International reserves should continue to rise. For this purpose, Ukraine should maintain a current account and a trade surpluses. Thus, the exchange rate policy should avoid a significant real appreciation of the hryvnia, which would hurt exports and the current account. Taking into account the relative high rate of inflation in Ukraine, a steady nominal devaluation of the hryvnia would be necessary. In addition, co-operation with international financial organisations such as the IMF is also important to ensure an adequate level of international reserves.**
2. **The credit instruments of the NBU should be developed further, so that the NBU increases its leadership in determining short-term interest rates in Ukraine. Currently the measure would not enable the NBU to defend the hryvnia because of the low level of short-term international capital movements in Ukraine. In the future, however, it definitely will help, once capital flows increase.**
3. **Restrictions in the foreign exchange market should be relaxed gradually.**

6.3 Third part of the strategy: reduction of the negative effects of a sudden devaluation

The third part of the strategy intends to reduce the negative effects of a sudden devaluation. Ukraine’s economy is characterised by a high level of financial dollarisation, that is, the usage of the US dollar or other foreign currencies for the denomination of debt contracts. More than 40% of credits and deposits in the balance sheets of commercial banks are denominated in foreign currency. Financial dollarisation also applies to the

public sector: over 80% of total state debt is denominated in foreign currency. Due to this widespread financial dollarisation, a major devaluation would undermine the capacity of private and public debtors to repay their debts, thus, giving rise to a banking and fiscal crisis.

In order **to prevent a banking crisis following a sudden devaluation**, we propose a number of measures.

1. **NBU should continue to ensure low inflation and a relative predictable exchange rate. The combination of low inflation and relative exchange rate predictability in 2001 led to an increase in hryvnia-denominated deposits at commercial banks by 7 percentage points.**
2. **NBU should gradually release the banking regulation on conducting transactions with foreign currency since current regulation is considered as too restrictive.**
3. **NBU should try to achieve consistency in its signalling of policy steps, in order to improve predictability of policy steps and exchange rate changes. Early information about plans of future decisions should be better shared with the public. Clear references to the goals towards which a particular decision is oriented should be provided.**
4. **The *de facto* independence of the NBU from the government should be increased. At present, the Ministry of Finance owes the NBU around UAH 20 bn (including credits and POVDP-bonds). Decisions of the government about the servicing of this debt are simultaneously decisions about the money supply in Ukraine. That is why the NBU is not completely independent in its monetary policy. It should be guaranteed, that in the future, the government debt to the NBU is fully serviced and no debates between these institutions occur.**

In order **to prevent a fiscal crisis after a sudden devaluation**, we put forward the following proposal:

1. **The share of government debt denominated in foreign currency should be reduced significantly in order to avoid a fiscal crisis following a sudden devaluation. The process of substituting internal debt for external debt has already started, but mainly due to the inability of the Ukrainian government to obtain fresh credits from abroad. In the future, the government should primarily try to attract local funds for financing the budget deficit, and it should denominate its debts in national currency.**

The adoption and implementation of the proposed strategy would bring Ukraine important advantages. It would ensure external stability and, thus, prevent a harmful destabilisation of the economy, which could undermine support for further structural reforms. It would also contribute to the continuous process of integration into the global economy, with respect to trade and investment. Furthermore, it would facilitate upcoming negotiations with regional and international organisations, such as the European Union and the World Trade Organisation. As a consequence, Ukraine would be able to obtain better results from these negotiations. For

all these reasons, we strongly advise Ukraine to adopt and begin implementing the proposed strategy as soon as possible.

Appendix

Ukraine: balance of payments (NBU), USD m

Position	1997	1998	1999*	2000**	Q1-Q3 2001	2001***
CURRENT ACCOUNT	**-1335**	**-1296**	**932**	**1207**	**1237**	**1402**
BALANCE OF GOODS AND SERVICES	**-1536**	**-1207**	**1095**	**1132**	**661**	**613**
Exports of goods and services	**20355**	**17621**	**16332**	**19248**	**15524**	**21086**
Imports of goods and services	**-21891**	**-18828**	**-15237**	**-18116**	**-14863**	**-20473**
BALANCE OF GOODS	**-4205**	**-2584**	**-482**	**505**	**400**	**198**
Exports of goods	**15418**	**13699**	**12463***	**15448****	**12599**	**17091**
Food and related products	*1802*	*1379*	*1418*	*1378*	*1163*	*n.a.*
Fuel and energy products	*1142*	*1023*	*1057*	*1273*	*1149*	*n.a.*
Chemical and related industries' products	*2015*	*1735*	*1384*	*1914*	*1423*	*n.a.*
Wood and related products	*209*	*238*	*313*	*419*	*386*	*n.a.*
Manufacturing goods	*643*	*672*	*593*	*725*	*633*	*n.a.*
Ferrous metals and related products	*5904*	*5336*	*4874*	*6468*	*5064*	*n.a.*
Machines and equipment	*1970*	*1721*	*1388*	*1859*	*1794*	*n.a.*
Other (including shadow trade flows)	*1733*	*1595*	*1436*	*1412*	*987*	*n.a.*
Imports of goods	**-19623**	**-16283**	**-12945**	**-14943**	**-12199**	**-16893**
Food and related products	*-898*	*-1052*	*-902*	*-908*	*-764*	*n.a.*
Fuel and energy products	*-8280*	*-6170*	*-5441*	*-6419*	*-4803*	*n.a.*
Chemical and related industries' products	*-2151*	*-1821*	*-1459*	*-1647*	*-1423*	*n.a.*
Wood and related products	*-500*	*-473*	*-397*	*-436*	*-421*	*n.a.*
Manufacturing goods	*-745*	*-743*	*-635*	*-741*	*-639*	*n.a.*
Ferrous metals and related products	*-665*	*-629*	*-409*	*-681*	*-617*	*n.a.*
Machines and equipment	*-3687*	*-3172*	*-2255*	*-2625*	*-2392*	*n.a.*
Other (including shadow trade flows)	*-2697*	*-2223*	*-1447*	*-1486*	*-1140*	*n.a.*
BALANCE OF SERVICES	**2669**	**1377**	**1577**	**627**	**261**	**415**
Exports of services	**4937**	**3922**	**3869**	**3800**	**2925**	**3995**
Imports of services	**-2268**	**-2545**	**-2292**	**-3173**	**-2664**	**-3580**
INCOME (balance)	**-644**	**-871**	**-869**	**-942**	**-468**	**-667**
Credit	158	122	98	143	129	167
Debit	-802	-993	-967	-1085	-597	-834
CURRENT TRANSFERS (balance)	**845**	**782**	**706**	**1017**	**1044**	**1456**
Credit	942	868	754	1136	1082	1516
Debit	-97	-86	-48	-119	-38	-60

Ukraine: balance of payments (NBU), USD m (cont.)

Position	1997	1998	1999*	2000**	Q1-Q3 2001	2001***
CAPITAL AND FINANCIAL ACCOUNT	**2120**	**2106**	**120**	**-1331**	**-1039**	**-1171**
CAPITAL ACCOUNT	**0**	**-3**	**-10**	**-8**	**1**	**3**
Capital transfers	0	-3	-10	-8	1	3
FINANCIAL ACCOUNT	**2120**	**2109**	**130**	**-1323**	**-1040**	**-1174**
DIRECT INVESTMENT	**581**	**747**	**489**	**594**	**596**	**769**
Into Ukraine	623	743	496	595	616	792
Abroad	-42	4	-7	-1	-20	-23
PORTFOLIO INVESTMENT	**1603**	**47**	**62**	**-201**	**-565**	**-866**
Foreign securities (assets)	-2	-2	-11	-4	2	1
Domestic securities (liabilities)	1605	49	73	-197	-567	-867
OTHER INVESTMENT	**319**	**-9**	**-138**	**-1318**	**124**	**529**
Assets	**-1583**	**-1321**	**-1440**	**-449**	**-1003**	**-1015**
Loans	*-319*	*-12*	*158*	*12*	*-2*	*-4*
Receivables	*154*	*-210*	*-152*	*-6*	*-463*	*-521*
Other short-term capital	*-710*	*-1065*	*-1334*	*-360*	*-667*	*-633*
Currency and deposits	*-708*	*-34*	*-112*	*-95*	*129*	*143*
Liabilities	**1902**	**1312**	**1302**	**-869**	**1127**	**1544**
Loans	*985*	*-43*	*-73*	*-1673*	*138*	*399*
mid-term and long-term loans	*1025*	*130*	*-143*	*-1690*	*20*	*169*
uaranteed and received from IFIs	*766*	*-63*	*48*	*-1960*	*-129*	*-63*
drawings	*1635*	*1161*	*1182*	*424*	*710*	*1094*
repayments (by schedule)	*-869*	*-1224*	*-1134*	*-2384*	*-839*	*-1157*
lon-Guaranteed	*259*	*193*	*-191*	*270*	*149*	*232*
drawings	*315*	*630*	*623*	*915*	*820*	*1322*
repayments (by schedule)	*-56*	*-437*	*-814*	*-645*	*-671*	*-1090*
short-term loans	*-40*	*-173*	*70*	*17*	*118*	*230*
Payables	*865*	*1516*	*1155*	*362*	*603*	*764*
Other short-term capital	*63*	*-70*	*225*	*347*	*351*	*349*
Currency and deposits	*-11*	*-91*	*-5*	*95*	*35*	*32*
RESERVE ASSETS	**-383**	**1324**	**-283**	**-398**	**-1195**	**-1606**
Currency and deposits	-507	1432	-395	-214	-1068	-1597
Special drawing rights	-5	-108	112	-184	-127	-9
Securities	129	0	0	0	0	0
Net errors and omissions	**-785**	**-810**	**-1052**	**124**	**-198**	**-231**
BALANCE	**0**	**0**	**0**	**0**	**0**	**0**

Notes:

* The value of goods transferred to Russia according to the inter-governmental agreement reached in May 1997 on the Black Sea Fleet division totalling USD 726 m is not included.

** The value of aircraft complexes transferred to Russia as repayment of gas debts according to inter-governmental agreement reached in October 1999 totalling USD 274 m is not included.

*** Preliminary data. These data were published after completion of this volume and are, therefore, not considered in the chapters.

About the Institute for Economic Research and Policy Consulting

In October 1999 the Institute for Economic Research and Policy Consulting was founded by top-ranking Ukrainian politicians and the German Advisory Group on Economic Reforms. The German Advisory Group is part of Germany's TRANSFORM-programme. The Institute is jointly financed by the Ukrainian and the German Government. It is in full operation since July 1st, 2000.

Aims of the Institute

- to establish an independent research organisation that will provide decision-makers, inside and outside government, with analyses of the Ukrainian economy and economic policies;
- to support the economic training and analytical capacity of young Ukrainian scholars as potential economic reformers;
- to provide policy advice on the basis of sound economic research.

Principles of work

The Institute is dedicated to the principles of a free and democratic market economy. Political independence is a prerequisite for the Institute if it is to find appropriate answers to questions of economic policy and avoid the manipulation of results. At the same time, close contacts to political decision-makers are needed in order to implement political advice. While the Institute develops its own long-term research agenda, the Institute will be responsive to short- and medium-term policy issues in the Ukrainian economy.

The structure of the Institute and research team

The Institute is directed by Iryna Akimova, Associate Professor at the University of Kharkiv, and Igor Burakovsky, Professor at the National University "Kyiv-Mohyla Academy". It is staffed by 10 young Ukrainian research associates, most educated in international education programs. During the first phase of its operation, the Institute is working in close co-operation with the German Advisory Group on Economic Reforms. An intensive know-how and information transfer between the Institute and numerous international and foreign universities and research institutions is pursued.

The Institute is organised into three departments:

1) Department of macroeconomic analysis

- monitoring of the national economy and preparation of short-term forecasts;
- monetary and exchange rate policy, development of financial markets and the banking sector;
- international economic policy (capital flows, foreign trade, competitiveness, integration into the European and the world economy).

2) Department of structural reforms

- corporate sector reform (privatisation, deregulation, competition policy, restructuring of privatised enterprises administration of the state's corporate holdings);
- development of small and medium-sized enterprises;
- reforms in the energy and agricultural sectors.

3) Department of public finance

- fiscal policy (budget deficit, tax policy, subsidies, government debt);
- development of infrastructure;
- regional policy;
- social policy.

Publications

The research results of the Institute are available to the public. The Institute issues a Working Paper series, including studies of current Ukrainian topics in economic policymaking. Contributions to the working paper Series come from the Institute's staff, the German Advisory Group, and outside experts. Other publications of the Institute include the MEMU (Monthly Economic Monitoring of Ukraine), the IMU (Infrastructure Monitoring of Ukraine), and conference proceedings. Current research projects and publications are also available through the Internet (http://www.ier.kiev.ua).

Current research topics

- What is the influence of devaluation on output and economic growth?
- What is the impact of major demand aggregates on growth of GDP?
- Reduction of the shadow economy: is there progress and are there policy implications?
- The instruments of the NBU for conducting monetary policy.
- The sequencing of capital market liberalisation and its importance for economic growth.
- Analysis of the driving forces for enterprise restructuring: Competition (level playing field, reducing subsidies), privatisation, corporate governance of state and non-state firms.
- Evaluating the degree of competition in different markets and hindrances to competition.
- Results and problems of corporate governance of private as well as state property.
- How to increase real investment in agriculture: Policies and institutions.
- Financing of firms and debt reduction.
- The impact of competition and (de-) regulation in infrastructure sectors (power, gas, railways, roads, telecommunications etc.).

Members of the Supervisory Board

- Viktor Yushchenko, former Prime Minister of Ukraine, Head of the Supervisory Board;
- Viktor Lysytskyi, former Secretary of State;
- Valeriy Lytvytskyi, Head of Advisory Group to the Governor of the NBU;
- Sergiy Tihipko, member of the Ukrainian Parliament;
- Ihor Shumylo, First Deputy of the State Secretary of the Ministry of Economy;
- Anatoliy Chukhno, Member of the Ukrainian Academy of Sciences;
- Michailo Savluk, Director of the Ukrainian Banking Academy;
- Lutz Hoffmann, Co-leader of the German Advisory Group;
- Lorenz Schomerus, Co-leader of the German Advisory Group;
- Kirk Mildner, Representative of the German Kreditanstalt für Wiederaufbau;
- Volkhart Vincentz, German Advisory Group.

Directors

- Iryna Akimova, Director of the Institute;
- Igor Burakovsky, Director of the Institute;
- Lars Handrich, Deputy Director, German Advisory Group.

Association of the Friends of the Institute

The Institute is supported by the "Association of Friends" that provides institutional and material assistance. Among the founding members of the Association are high-ranking individuals and corporate enterprises from Ukraine, Germany and other countries, among them Orlan, Galichina, Obolon, Deutsche Bank, DaimlerChrysler and Siemens. A. Kinach, the Prime Minister of Ukraine and the President of the Ukrainian League of Industrialists and Entrepreneurs (USPP), is the Head of the Board of Directors of the Association of Friends of the Institute. Dr. Hoffman, the head of the German Advisory Group, has been elected as the Deputy Head, while K. Rau (representative of the German Chamber of Commerce and Industry) – as the member of the Board of Directors of the Association. We invite anyone interested to join the Association, and, thus, to set a sign of support to the aims and working of the Institute.

The Institute for Economic Research and Policy Consulting research team

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