

Ukraine's Trade Policy

*A Strategy for Integration into
Global Trade*



A WORLD BANK COUNTRY STUDY

Ukraine's Trade Policy

A Strategy for Integration into Global Trade



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Abstract

The study focuses on identification of the key drivers of recent trade performance of Ukraine, assessment of current trade policies, and development of recommendations to strengthen the Ukraine's trade integration strategy. It also identifies core bottlenecks in the ongoing integration processes, including global (WTO accession), as well as regional (both EU and CIS) integration.

The study concludes that the main obstacles to furthering Ukraine's trade integration are domestic, and relate to deficiencies in the business environment. Problems in customs administration, standardization, and administrative barriers for new entry require immediate attention. The report highlights specific policy issues that hamper WTO accession, such as trade legislation, protection of intellectual property rights, government support for specific industries, and export restrictions. It also recommends improvements in the structure of Ukraine's import tariffs, reform of both the regime of free economic zones and mechanism of VAT refund, and investment in a major upgrade of government capacity for investment and export promotion.

A simultaneous push toward free trade arrangements with both the EU and CIS fits well with Ukraine's longer-term interests. Efforts to advance free trade can proceed immediately, and do not need to be linked to other policy objectives, such as membership of the EU. The aspiration to EU membership provides an anchor for medium term institutional and structural reforms in Ukraine. Meanwhile, securing WTO membership market economy status and WTO membership are achievable in the short-run.

The report also draws attention to the importance of the post-WTO accession agenda for Ukraine. To take advantage of WTO membership, the Government will need to undertake significant institutional reforms to implement WTO regulatory rules in ways that facilitate integration into the world economy and provide benefits to private sector participants.

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Abbreviations and Acronyms

ACP	African, Caribbean, and Pacific countries
AMS	Aggregate Measure of Support
CEE	Central and Eastern Europe
CEEC	Central and Eastern European countries
CED	Center for Economic Development
CIF	Cargo, Insurance and Freight
CIS	Commonwealth of Independent States
COMTRADE	U.N. commodity trade database
CPI	Consumer Price Index
DEC	Development Economics Department
DFID	Department for International Development, UK
DOTS	IMF's Directions of Trade Statistics
DSSU	State Committee on Technical Regulations and Consumer Policy
DX	Exports diversification index
EBRD	European Bank for Reconstruction and Development
EEC	European Economic Community (the predecessor of the EU)
EFTA	European Free Trade Association
ESIs	Export specialization indices
EU	European Union
EU-10	EU member countries that joined the Union April 1, 2004
EU-15	EU members who were part of the EU before April 1, 2004
EUROSTAT	European Statistical Agency
FDI	Foreign Direct Investment
FIG	Financial and industrial groups
FOB	Free on Board
FTA	Free trade agreement
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GOST	State system of standards used in the Soviet Union
GOU	Government of Ukraine
GSP	Generalized System of Preferences
G-L	Grubel-Lloyd index
IER	Institute for Economic Research and Policy Consulting, Kiev
IFC	International Finance Corporation
IFS	International Financial Statistics
IIPA	International Intellectual Property Alliance
ILAC	International Laboratory Accreditation Center
IMF	International Monetary Fund
IMU	Investment Metallurgy Union
IP	Intellectual property
ISO	International Standards Organization
LDC	Least Developed Country
LRMC	Long-run marginal costs

MEC	Multilateral Economic Cooperation
MFN	Most Favored Nation treatment
MEEI	Ministry of Economy and Economic Integration
MRA	Mutual recognition agreement
NAAU	National Accreditation Agency of Ukraine
NBU	National Bank of Ukraine
NTB	Non-tariff barrier
OECD	Organization for Economic Cooperation and Development
OPT	Outward Processing Trade
PCA	Partnership and Cooperation Agreement
ROW	Rest of the world
RCA	Revealed Comparative Advantage index
SCS	State Customs Service
SES	Single Economic Space
SITC	Standard International Trade Classification
SPS	Sanitary and phyto-sanitary measures
SSC	State Statistics Committee of Ukraine
TACIS	Technical Assistance for the Commonwealth of Independent States
TARIC	Integrated Tariff of the European Communities
TBT	Technical barriers to trade
TOT	Terms of trade
TRIPs	Trade-Related Aspects of Intellectual Property Rights Agreement, which is part of the WTO
TRQ	Tariff rate quota
UAH	Ukrainian Hryvnia
UEPLAC	Ukrainian-European Policy and Legal Advice Centre
UNCTAD	United Nations Conference on Trade and Development
USA	United States of America
USAID	U.S. Agency for International Development
USSR	Union of Soviet Socialist Republics
VAT	Value Added Tax
WDI	World Development Indicators
WITS	World Integrated Trade Solution database by the World Bank
WTO	World Trade Organization
WTO MTN	The Multilateral Trade Negotiation classification of the WTO

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FISCAL YEAR

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Executive Summary

Main Report's Messages

- While Ukraine's recent trade performance has been successful, the current trade patterns are unsustainable in the longer term because they depend heavily on temporary factors.
- Significant export diversification is critical for export to become a reliable source of future economic growth. This would require additional domestic reforms to facilitate new entry and integration in global value chains.
- The main obstacles to furthering Ukraine's trade integration are domestic and relate to serious deficiencies in the business environment. Problems in customs administration, standardization, and administrative barriers for new entry require immediate attention.
- Ukraine is well positioned to substantially expand exports to Europe, but to utilize its potential, it needs to drastically increase inward FDI because, in the modern economy, trade and FDI complement each other.
- The policy of global trade integration, based upon WTO principles, should be given priority over regional integration processes.
- Completing WTO accession is an over-riding policy priority for Ukraine that has to take precedence over specific sectoral and business interests.
- A simultaneous push toward free trade arrangements in both directions (EU and CIS) fits well with Ukraine's longer-term interests. Efforts to advance free trade should be de-linked from other policy objectives (such as EU membership and CIS Customs Union).

Ukraine is a relatively open economy with foreign trade turnover exceeding GDP. Since the mid-1990s, broad trends in the country's foreign trade have been quite closely correlated with major macroeconomic developments. It is not surprising then that trade policy issues have taken center-stage in the government's economic strategy.

Recently, the trade policy has received even more prominence as a critical element of Ukraine's political and economic agenda. The Government's new economic strategy is founded on the principle of "European Choice," and attaches a particular priority to rapid integration with the EU. Completion of the WTO accession process has also been among the top government policy priorities recently. The 2004 EU enlargement will have a pronounced impact on Ukraine's economic relations with its Eastern European neighbors. Ukraine has also been active in its efforts to streamline and upgrade its trade and economic relationship with the CIS. At this juncture, there is an essential need for Ukraine to develop a consistent and well-prioritized medium-term strategy for its trade integration, which would take into account the country's various regional as well as global interests.

The importance of this review of the trade regime in Ukraine derives from the fact that there are divergent views at the moment on the core bottlenecks for further export expan-

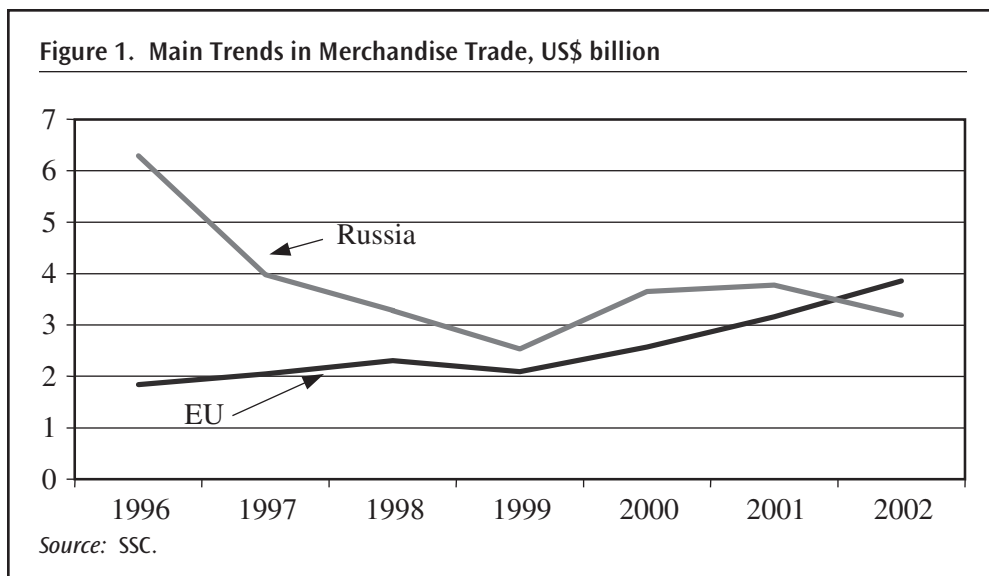
sion and growth. Some argue that antidumping and other external trade barriers imposed on Ukraine by its partners have become a major developmental constraint. Others suggest that Ukrainian trade patterns have been primarily distorted by domestic policies through a complicated array of explicit and implicit state subsidies and interventions. The main objectives of this study, therefore, are the following:

- Foster a better understanding of key drivers of recent trade performance.
- Assess current trade policies and provide additional recommendations to strengthen the Government’s trade integration strategy.
- Identify core bottlenecks in the ongoing integration processes, especially with respect to WTO accession.
- Develop recommendations for Ukraine’s international partners with respect to providing, (a) Ukraine with a level playing field in terms of its access to international trade, and (b) the government with additional technical assistance that would help Ukraine upgrade its trade policies and institutions.

Trade Performance

Ukraine’s strong trade performance has made a major contribution to recent economic recovery and growth acceleration in the country. About 40 percent of total GDP growth in 1999–2002 could be attributed to the increase in net exports. In 1999–2003, total merchandise exports increased (in current U.S. dollars) by about 100 percent (Figure 1). In addition, as a transit country, Ukraine has been increasingly benefiting from trade in services: export of services exceeds 10 percent of GDP, two thirds of which comes from transportation (primarily transit of Russia’s oil and gas to Europe).

Starting from 1999, Ukraine has been running trade and current account balance surpluses, while in 1997 its current account deficit exceeded three percent of GDP. Improve-



ment in trade balance was initially driven by import contraction in 1999. A faster growth in exports thereafter had an additional positive impact. In addition, the real exchange rate depreciated by 40 percent since 1999 and helped sustain growth by advancing import substitution. The impact of real depreciation on exports has been weaker so far, but it is expected, based on international experience, that eventually it will help exports as well.

Furthermore, improvements in trade performance had a beneficial impact on overall economic growth in Ukraine through a number of the following indirect channels:

- Trade and current account surpluses advanced Ukraine's macroeconomic stability, boosted private sector confidence and investments, and stimulated an increase in money demand.
- Increased export revenues fueled growth in domestic consumption and investments.
- Spillover effects from exporters were essential through both an increase in demand for domestic inputs and services, and transfer of new knowledge and technologies.

While Ukraine's trade performance has been strong relative to other CIS countries, its merchandise exports are still low when compared to Poland and other new EU members (Table 1).

Moreover, in the medium term sustainability of current export trends remains of concern. The primary drivers of the recent export growth relate to such factors as:

	Ukraine	Russia	CIS-10 (excl. and Russia)		
			Ukraine	Poland	Germany
Export of goods per capita	368.0	746.9	329.7	1210.1	7481.6
Export of goods, ratio to GDP, percent	43.2	31.1	58.3	24.7	31.1
Import of goods per capita	348.5	423.2	311.9	1397.8	5928.2
Import of goods, ratio to GDP, percent	40.9	17.6	55.2	28.6	24.7
Trade balance, ratio to GDP, percent	4.3	10.4	-3.1	-3.7	6.5
Openness, percent	103.6	59.6	139.8	59.5	55.8
Export of goods growth, percent, average for 1996–2002	3.7	3.1	5.8	9.2	2.8
Import of goods growth, percent, average for 1996–2002	-0.6	-1.8	2.1	7.6	1.3
Share of manufacturing (groups 5–8 excluding 68, using the SITC revision 2) exports in export of goods, percent	67.3	21.6	27.1	82.1	85.9
Share of CIS in export of goods, percent	24.4	8.7	18.1	6.3	2.5
Net FDI per capita, cumulative for 1996–2002	90.4	39.0	217.8	1088.7	-407.3
Net FDI, ratio to GDP, percent, average for 1996–2002	1.6	0.3	5.2	3.6	-0.1

Source: DOTS, IFS, WDI, SSC, NBU.

- Major growth in export unit value (especially for metals and oil products) that was responsible for about half of the total export growth in 1999–2003.
- One-time effect of recovery in traditional manufacturing (metallurgy, oil processing, and chemicals), which was largely driven by privatization, management change, and drastically improved capacity utilization.

Ukraine should not consider these factors to be permanent engines of export expansion. In particular, for the period to 2010, the ferrous metal sector is expected to maintain the current volume of steel exports because of both the growing domestic demand and increasingly binding capacity constraints (which in turn relates to the low investment levels in the sector). While a gradual increase in unit value of exported steel is likely, the sector's share in total exports is expected to decline.

Moreover, the analysis shows that Ukraine's export elasticity on foreign incomes has been low, implying that the existing export structure, if not improved, will limit opportunities for further growth expansion. International experience of the past 40 years clearly identifies export growth as the common denominator in all successful growth stories. However, Ukraine's recent export trends have been constrained by structural problems. So far, the role of efficiency factors, which could become longer-term export drivers, has been limited, while the contribution to export growth from both new export products and new exporters has been low. A major shift toward better incentives for a more diversified export structure would be needed in order for Ukraine to maintain high rates of export expansion, as well as to strengthen linkages between trade and growth performance.

At the moment, Ukrainian exports remain highly concentrated. The combined share of metals, chemicals, and mineral products amounted to 60 percent of 2003 total exports. Over 1999–2003, two sectors—iron and steel and mineral products—contributed 45 percent to total export growth. Overall, the Ukrainian export structure is heavily biased toward so-called “sensitive commodities,” such as metals and chemicals, that are particularly exposed to protectionism in global markets and are also highly sensitive to changes in market conditions. Thus, since 1995, the market position of leading Ukrainian exporters has been vulnerable due to a large number of antidumping investigations. The share of Ukraine in the global number of anti-dumping investigation is about 10 times higher than its share in global trade. Export diversification is the only way to make export less sensitive to both global market price changes and potential protectionism pressures.

While export growth since 2001 has become somewhat more inclusive than it used to be in the late 1990s, recent changes in diversification indicators have been too slow. In 2002, the number of commodity positions for which annual exports exceed US\$10 million was still lower than in 1996. Ukraine's comparative advantage in global trade is revealed in quite a limited number of commodity positions (14 product groups out of 94). This number did not change since 1996. Furthermore, Ukraine's export specialization differs significantly for its two largest export destinations—the CIS and the EU. So far, Ukraine has revealed more comparative advantages in trade with the CIS than with the EU or the world as a whole.

Ukraine lags behind its Eastern European neighbors, who recently became new EU members, on a number of indicators of trade restructuring (Table 2). Poland has much more diversified exports, a substantially higher complementarity of its exports with non-CIS markets, and a higher degree of intra-industry trade. Moreover, the Ukraine-Poland gap in indicators of trade diversification did not narrow much since the mid-1990s. These findings suggest that Ukraine underutilizes its advantages related to its proximity to major

Table 2. Structural Characteristics of Ukrainian and Polish Trade with the EU

	Poland	Ukraine
Grubel-Lloyd Index of intra-trade intensity, 2002	54.8	22.5
–Change, 1996–2002	12.9	3.9
Trade Complementarity Index, 2002	61.2	33.0
–Change, 1996–2002	11.3	7.8
Export Diversification Index, 2002 (*)	.186	.257
–Change, 1996–2002	–.011	+0.009

(*) Increase indicates less diversified trade.

Source: Staff estimates.

markets. This is reflected in the relatively low FDI flows to Ukraine. During 1996–2002, Ukraine managed to attract FDI flows equivalent to only 1.6 percent of GDP per annum on average compared with over 3.6 percent of GDP for Poland.

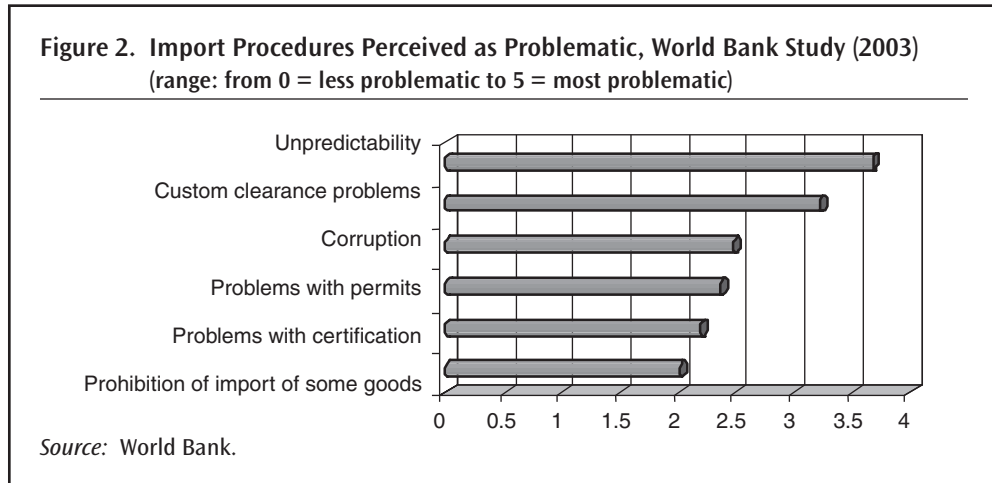
Since independence, Ukraine demonstrated considerable reorientation of its merchandise trade away from the CIS which took place in two major waves: immediately after the breakdown of the USSR in 1991–93 and in 1996–99. Overall, during 1996–2003, the CIS share in Ukraine’s exports almost halved to 26 percent. However, the CIS share in Ukraine’s imports is still about 50 percent, which reflects its high dependence on import of CIS energy products.

Despite significant reorientation of its exports toward the EU during the 1990s, the extent of trade with Europe is still lagging behind new EU members. The share of Ukraine’s exports to the EU-15 (20 percent in 2003) is three times lower than that of Poland. While Ukraine has less preferential access to the EU market than many developing countries, as well as countries in the Balkans, this should not be considered as a critical factor that hampers its export expansion. The evidence from the early 1990s suggests that many central European countries managed to considerably expand their export to the EU-15 under conditions which have not been fundamentally more concessional than those faced by Ukraine.

The intensity of intra-industry trade with the CIS has been on average 1.5 times higher than that in trade with the rest of the world (ROW). This indicates the continuing importance of the traditional USSR links between CIS economies. The degree of Ukraine’s intra-industry trade with the CIS is quite high on cross-country comparisons and it is very close to the level of OECD countries.

The analysis suggests that the primary constraints to export expansion and diversification in Ukraine are internal, and relate to conventional domestic factors such as a weak private sector and deficiencies of the business environment that hamper new private entry, for both domestic and foreign firms. As the survey of Ukrainian exporters suggest (Figure 2), the greatest internal barriers for international trade in the country, as perceived by trade operators, are the following:

- General complexity of regulations and their unfair enforcement, including multitude of pre-customs permits, registrations, licenses, technical regulations, and related to this corruption, delays, and high compliance costs.
- Slow and costly process of VAT reimbursements to exporters, which continues to receive most negative grades in business surveys.
- Unpredictability and corruption in customs.



The results of the exporters' survey also suggests that Ukrainian exporters face by far more problems at home than abroad. The only serious concern that exporters have about the external trade regime relates to difficulties in protecting their rights in foreign courts. While in the last few years the Government made some progress in improving Ukraine's business environment by, for instance, streamlining regulations related to company registration and licensing, these positive changes have not yet reached the area of trade facilitation. Because these types of obstacles to trade are domestic, they are entirely under government control. Their removal does not require complicated international negotiations and addressing them should be the top government priority.

Ukrainian trade statistics are quite distorted, which reflect considerable weaknesses in the enforcement of the trade regime that allows for a high incidence of smuggling and misreporting by trade operators. These weaknesses have serious fiscal implications: the conservative estimate for foregone fiscal revenues associated with under-reported imports amounts to US\$150 million a year. A greater level of cooperation between Ukraine's Statistical Committee and statistical agencies of Ukraine's partners, particularly with Eurostat, might improve the accuracy of trade data, support government policies to improve enforcement of the trade regime, and eventually contribute to a better fiscal position for Ukraine.

Analysis of the trade mirror statistics also suggests that since 2001 foreign trade has facilitated an unregistered net capital inflow. In 2002, such a transfer could amount to US\$3 billion or 7 percent of GDP. It helps to explain recent high rates of domestic investments growth in Ukraine.

Trade Regime

Overall, Ukraine's statutory trade regime at the moment is quite liberal compared with both the EU and transition economies in CEE (before they joined the EU), but it is not the most liberal. Starting in 1999, the Ukrainian Government (GOU) intensified its efforts to liberalize foreign trade and expand opportunities for integration with world markets. However, the trade regime's real picture is much less favorable. The real barriers for trade remain

considerable and they relate to the behind the border administrative regulations and enforcement mechanisms, which are not reflected in the standard measures of protection such as import tariffs.

There has been a steady trend toward trade liberalization in terms of reduction of average tariff and non-tariff barriers (NTB) since the peak of protection attained around 1999. Ukraine's import tariff levels are mild on average, and they appear to be in line with comparator countries, albeit with a few tariff peaks. The import-weighted average tariff amounted to about 5 percent in 2002 (Table 3). This includes predominantly tariff-free imports from the CIS that account for about a half of the total merchandise imports. At the same time, about 5.6 percent of positions in the tariff schedule have tariffs above 25 percent. Collections of import tariffs make only three percent of the total government tax revenues.

However, the Ukrainian tariff schedule has three important drawbacks:

- Agriculture seems to be excessively protected. Average tariff equivalents for agricultural goods were much higher than non-agricultural tariffs—31.4 versus 2.7 percent in 2002. Sugar and sugar confectionary is the most protected commodity, for which the ad valorem tariff equivalent rate reached 146 percent in 2002.
- Tariff escalation, which increases protection of domestic producers of finished products over statutory import tariffs, is significant. Within the same manufacturing sector tariff differences between industrial inputs and finished goods amount to three to eight times. This does a disservice to the economy by overly shielding domestic producers from international competition, and dampening their incentives for improvement in efficiency and export diversification.
- The tariff schedule is overly complex, which encourages both commodity misclassification and corruption. The number of different tariff rates went up from seven in 1993 to 50 in 2003. Modest yields from customs duty collection do not justify such

	1996	1997	1998	1999	2000	2001	2002	2003
All goods								
–All imports	3.1	4.6	5.0	4.9	4.4	4.7	5.0	n.a.
–MFN imports	6.0	9.3	9.7	10.2	8.9	9.1	9.7	n.a.
Non-agricultural goods								
–All imports	2.1	2.6	3.0	3.0	2.8	2.7	2.7	2.7
–MFN imports	4.4	5.5	6.5	6.7	6.0	5.8	5.9	5.9
Agricultural goods								
–All imports	14.9	28.1	27.9	26.7	22.9	27.6	31.4	n.a.
–MFN imports	17.6	37.0	33.4	35.5	30.2	33.3	37.6	n.a.
Implicit tariff rates								
–All imports	n.a.	n.a.	2.5	1.7	1.8	2.1	2.4	2.2
–MFN imports	n.a.	n.a.	5.6	4.2	4.5	4.9	5.2	4.6

Source: IER and World Bank estimates.

complexity and risks making policy implementation susceptible to lobbying by special interests. This provides a strong argument for moving toward a uniform tariff: Ukraine will be better off with a simpler and flatter tariff schedule.

The implicit average tariff rate has been low. It varied between 1.7 and 2.5 percent in the period from 1998 to 2003. The implicit rate stood at less than a half of the average import-weighted applied rate for the respective years. Such a large discrepancy can be explained primarily by a proliferation of import duty exemptions and weak enforcement. This may indicate fiscal losses as large as US\$400–500 million a year.

The number of non-tariff measures faced by imports into Ukraine has significantly increased since the mid-1990s. Nevertheless, compared to OECD countries, Ukraine seems to be quite liberal in terms of low index for official non-tariff core protection. However, the level of the informal NTBs is not taken into account in the above index. Available business surveys point to serious implementation problems of NTBs (such as in the area of certification) that raise effective trade barriers and sour the business climate.

Ukraine maintains export taxes on a limited variety of products (selected agricultural products and metal scrap) which create a stumbling block in both its WTO accession negotiations and trade relations with the EU. At the moment, economic benefits from these taxes to the Ukrainian private sector appear to be questionable at best. Moreover, these taxes carry considerable costs to Ukraine's commercial diplomacy. In times when the country needs additional good will of its partners to accelerate WTO accession and regional integration processes, the Government may have strong incentives either for repealing or phasing out these export taxes.

Ukrainian exporters in the steel sector and other manufacturing have been recipients of a considerable amount of government support. This support was provided primarily in the form of indirect subsidies, such as tax exemptions, low energy tariffs, and—in the case of the steel sector—restrictions on exports of scrap metals. During the economic experiment of 1999–2001, the steel sector received about US\$1 billion in implicit budgetary support. While the amounts of such subsidies declined noticeably since 1999, their levels remain far from trivial. At the same time, the analysis of the situation in the steel sector suggests that the leading steel exporters have sufficient cost advantages and would remain competitive without these subsidies, even if they face some softening of world market demand.

The current GOU policy of supporting individual industries and enterprises should be replaced by a new industrial policy that would focus on creating incentives for private investments in an environment of equal conditions for all market participants, as well as on setting up mechanisms of real sector support that would meet WTO requirements.

Ukraine tends to frequently apply trade contingency measures (safeguards and anti-dumping). The CIS (especially, Russia) and the EU appear to be the main targets of Ukrainian contingency protection. Ukraine would be best served if it restrains its use of such measures and considers them as extraordinary policy tools. Their use should be preceded by bilateral negotiations and pros and cons carefully weighted. Application of antidumping duties could be justified only if the GOU has evidence that such an application is in the broad national economic interest, taking into account the interests of domestic consumers (and not just producers). In any case, even before its accession to the WTO, Ukraine should adhere to WTO rules governing the application of such measures.

Free economic zones in their current format are poorly set up and managed, and are not compatible with WTO rules. Rather than fostering strong export performance, they create

incentives and opportunities for tax dodging and rent-seeking, and breed corruption. Despite prior obligations taken by the Government, these regulations need to be completely revamped, albeit with special attention to minimizing the moral hazard of regulatory changes. Overall, in a country like Ukraine, with its manageable size but with weak administrative capacity, a better strategy for export development would be an emphasis on across-the-board improvements in the domestic business environment rather than the current focus on creation of tiny enclaves with better business conditions than in the rest of the economy.

In a transit country, such as Ukraine, another important aspect of the trade regime relates to rationality and predictability of tariff policy in the transportation sector, especially in railways and pipelines. The Government should avoid using transportation tariffs either as a tool of market protection or implicit subsidization of exporters.

Trade Strategy for Moving Forward

At the moment there remain inconsistencies in Ukraine's trade strategy. A leading example is adoption of strongly worded declarations that support both "European Choice" for Ukraine and participation in the "Single Economic Space." These inconsistencies are confusing for Ukrainian business people and trade partners, and they complicate the process of the attainment of Ukraine's strategic goals. Some other examples of such inconsistencies are as follows:

- Signing specific declarations within the framework of the Single Economic Space (SES) could be interpreted as an intention to establish a customs union with its CIS partners. Harmonization of external tariffs with other members of such a customs union before completing the WTO accession process poses the risk of re-negotiating the conditions of accession.
- Government's WTO aspirations contradict to its non-market and often WTO-inconsistent approaches to a resolution of specific sectoral problems in the real sector. Just too often the GOU has introduced administrative restrictions on market mechanisms, provided implicit subsidies to local producers, and was insufficiently tough in confronting the influence of sectoral interests on government policies.
- Declarations on strengthening economic integration with both the EU and Russia are accompanied by a considerable number of ongoing trade disputes. In several cases, in particular with respect to Ukraine-Russia trade, economic gains from the contingency measures introduced are quite insignificant and are not worth the damage of souring trade relations. Such micro trade wars bring about considerable political damage and inflate the ambitions of sectoral lobbyists.

The fundamental conclusion of this study is that the global trade integration agenda should become an anchor for Ukraine's medium trade strategy. That is, over the short to medium-term, global trade integration efforts should be given priority over any regional integration strategies, either with the EU or within the CIS. Indeed, attaining global integration would help Ukraine accelerate its regional integration efforts, and help Ukraine avoid potential contradictions among its various regional integration agendas.

Therefore, completing WTO accession should be considered as an overriding policy priority for Ukraine, which has to dominate over specific interests of particular sectoral and

business groups. WTO accession must be viewed not just as an instrument of global integration, but also as a tool for advancing domestic economic reforms. Further delays with WTO accession may mean that Ukraine would miss the existing chance of accelerating its economic integration with the EU.

The longer-term trade strategy for Ukraine could be based on its strategic advantage—location between two much larger economic entities, the EU and Russia. Moreover, it is likely that for the foreseeable future, Ukraine would have lower labor costs than its neighbors. Ukraine's policy priority should be an efficient utilization of this advantage by positioning itself as a potential:

- Low cost platform to produce goods and services for both CIS and CEE markets.
- Natural bridge between EU and Russia/Central Asia, that is, performing as a reliable transit country.
- Location with low regulatory costs, good proximity to major markets, and preferential market access to its larger neighbors.

Economic policies to support this longer-term strategy would require changes in a number of directions:

- A stronger stability/predictability of government policy that would make Ukraine's partners comfortable about their longer-term choices related to Ukraine.
- Making a major push for free trade arrangements in both directions (EU and CIS).
- Improving the domestic business environment and expanding an inflow of FDI.
- Upgrading domestic institutions for export and investment promotion, including the launch of a broad communication campaign to improve Ukraine's investment image as an attractive location for business and investment.
- Strengthening the institutional framework for trade policy elaboration and implementation aimed at improvements in intra-Governmental coordination and more efficient control of sectoral and group interests.

Ukraine needs to formulate a realistic trade policy strategy toward the EU, which anticipates a fairly protracted period of economic development outside of the EU. Membership in the EU should be viewed as a long-term anchor for institutional and structural reforms in Ukraine, while the immediate and more practical agenda is WTO accession. This should not preclude Ukraine from pushing aggressively the agenda of economic integration with the EU, although at the moment the EU seems unwilling to discuss any potential timetable for Ukraine's accession to the Union. Ukraine should fully utilize the potential benefits of the new EU neighborhood initiatives. In the short to medium term, Ukraine appears to have a unique opportunity to accelerate its economic integration with Europe by simultaneously:

- Pushing the idea of a free trade agreement with the EU.
- Removing the main stumbling block on the way to such negotiations by joining the WTO.
- De-linking this agreement from the issue of EU membership.

Ukraine should also request its inclusion in the Pan European Area of Cumulation regarding exports to the EU. This would allow Ukraine to alleviate restrictions associated with the

rules of origin and boost the competitiveness of its exporters by expanding their use of inputs from CEE, Turkey and several other countries.

As a member of the CIS, Ukraine benefits from the free trade area, the mutual recognition of standards, and generally non-restrictive rules of origin. However, the existing arrangements within the CIS trade bloc are far from being efficient, and they are affected by the following deficiencies:

- Free trade agreements lack stability, while potential exemptions from the free trade regime create a degree of uncertainty with respect to future market access.
- A weak mechanism for dispute resolution has a stifling effect on trade.
- Free transit and efficient customs cooperation have not been achieved.

The CIS clearly needs further reform to address the deficiencies in the bloc setup and operations. CIS countries should introduce WTO-style principles and disciplines in their intra-bloc affairs independently of their joining the WTO. The harmonization of the regulatory regimes in the CIS should be WTO and EU-compatible.

The success of the new Single Economic Space (SES) initiative is so far impossible to assess. It may repeat the fate of the earlier multiple failed integration efforts within the CIS, but could also bring improvements in the operation of the CIS trading bloc, albeit for a small number of participants. At this point, it is important for SES partners to accept the mutually agreed core integration measures and adequately sequence their efforts.

While it is in Ukraine's interests to improve efficiency of the free trade zone in the CIS, entering into a new customs union may have a detrimental effect on its long-term interests, including deeper integration with the EU. The primary reason for this is, as the recent experience of other CIS countries suggests, Russia is likely to insist on its own tariff structure as the common SES external tariff. This means that Ukraine would bear most trade diversion costs, since the tariff would be higher on goods Russia produces. In addition, the SES customs union would limit the ability of Ukraine to move to a low and uniform tariff in the future, as is recommended in this study. Finally, it is just impossible to belong to two customs unions, the EU and SES.

Completing the WTO Accession Process

The review of Ukraine's WTO accession process reveals that much has already been done in the name of WTO accession. The Government has passed hundreds of new laws and written thousands of pages in response to questions from WTO members about its trade policies. Considerable progress was made with respect to concluding bilateral negotiations and finalizing the tariff offer. These do not yet add up to a protocol of accession, but the end appears to be in sight.

To bring negotiations to a successful conclusion, the Government will first need to concentrate on the domestic reform agenda. This includes negotiating the WTO agenda with domestic constituencies, such as Verhovna Rada and individual interest groups. All necessary legal analyses have been conducted. A roadmap for expected legal upgrades is with the Ministry of Economy and Economic Integration (MEEI). However, as recent experience suggests, passage of this legislation is not just a technical problem. There are important political economy considerations that have been blocking the passage of new laws in areas

like intellectual property rights, agricultural support and the move to voluntary standards. Therefore, what is required is intervention at the top political level to support the MEEI negotiators to get the legislation passed.

If Ukraine is serious about joining the WTO, the country's top leadership advocating accession will need to devote more political capital to this task and communicate its political importance to the Rada and general public more effectively. Moreover, this legal agenda should take precedence over bilateral market access negotiations—generous tariff concessions will not compensate for a weak legal environment. The trade agenda will also need a higher priority in the legislative program of the Rada.

Priority measures to accelerate WTO membership include the following:

- Rewriting the Law on Foreign Economic Activity.
- Eliminating all non-tariff interventions in the sugar market.
- Reducing or eliminating export taxes, first of all on scrap metals and hides.
- Addressing the issue of preferences to domestic producers in the automobile industry.
- Shortening the list of imported goods requiring mandatory certification or inspection.
- Passing amendments to the CD-ROM import licensing law.

The existing instruments of protection of agricultural markets should be replaced with the instruments that are WTO consistent, transparent, and cause fewer distortions to domestic and international trade. These include replacing the existing policies with government support for regional development programs in respective regions, direct income support for farmers that is decoupled from current production levels or prices, and expenditures on environmental protection and agricultural research.

The GOU has to improve its intra-agency cooperation with respect to resolving the pending issues of the WTO agenda. The MEEI needs to get additional political support from top government officials for efficient mobilization of all government entities to work as a team. Stronger engagement of the private sector in both domestic policy dialogue and commercial diplomacy abroad is also desirable. There is a need to advance and expand public discussions on the role of agricultural issues in the WTO accession process. The GOU should accelerate the completion of a more comprehensive, model-based quantitative analysis of potential WTO impact on particular sectors and regions of Ukraine. This would allow for advancing a design of future mitigation policies.

Even if the political will is mobilized and cooperation among stakeholders improves, it will likely take at least a year to work through the full agenda of legal reforms. In this case, it would be practical for the GOU to admit that completion of the WTO accession in 2004 is out of reach, and adjust the overall timetable for WTO accession, switching to a later completion date.

Full legal compliance with WTO rules will satisfy WTO members, but will not automatically yield benefits for the Ukrainian economy. To take advantage of WTO membership, for example dispute settlement mechanisms available to WTO members, the MEEI will first need to enhance its capacity to conduct commercial diplomacy. More effective public engagement and better inter-agency coordination will help the MEEI address foreign countries' unfair trade barriers.

Furthermore, to benefit from WTO membership, the Government will need to undertake significant institutional reforms to implement WTO regulatory rules in ways that facilitate integration into the world economy. Customs modernization, standards reform, and

export/investment facilitation represent the areas that will likely yield the biggest payoffs. International experience suggests that institutional upgrades of this type could be costly. The GOU has to budget for such future WTO-related expenses as a part of its medium-term expenditure strategy.

WTO accession and addressing the post-WTO accession agenda are critically dependent upon the availability of relevant international expertise. At the moment, the GOU has access to a broad range of donor-funded sources of technical expertise, but it is not always using this assistance efficiently. To complete WTO accession, the GOU does not need much additional external help. However, more technical assistance may be needed over the next several years to address the post-accession agenda. The Government will have to upgrade its capability to channel donors' programs toward the critical components of its own agenda and avoid delays in the implementation of assistance programs.

Accelerating Economic Integration with the EU

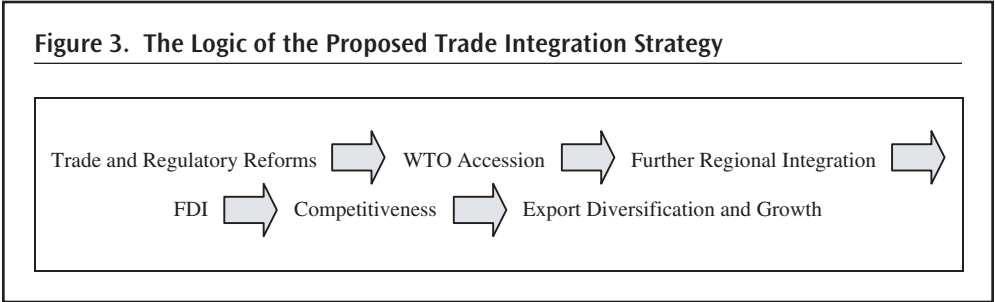
While EU protection, especially in agriculture, is an important constraint for certain products produced in Ukraine, EU trade policies alone cannot explain why the share of the EU in Ukraine's exports has not reached the levels of comparator countries. This study did not find evidence to support the claim that "Ukraine is subject to extreme trade discrimination from the EU." As mentioned above, the key issue for sustained export growth by Ukraine is the need to accelerate export diversification. There is no evidence that EU trade policies are constraining such a process. EU duties on industrial products are on average very low and are further reduced under the GSP. The real driver for the early trade reorientation in the CEE was a broad commitment to reforms, which was manifested in rapid improvements in the regulatory and business environment, strong FDI inflows, and firm rates of enterprise restructuring. Compared to CEE countries, Ukraine seriously underutilizes advantages of its geographic location as a basis for attracting FDI and restructuring its trade patterns.

Moreover, the recent enlargement of the EU would not lead to any additional problems for Ukrainian export to the EU, first of all for its manufacturing exports. According to the results of the exporter surveys, even before the enlargement, Ukrainian exporters did not see much difference in market access between the EU-15 and the new EU members. At the same time, EU enlargement will bring considerable longer-term benefits to Ukraine related to: (i) expected expansion in import demand by new members (based on the experience from the earlier EU expansions, FDI inflows to the EU-10 could double in a few years after the accession); and (ii) considerable investments that would flow in upgrading transport and customs infrastructure in the new member countries.

With some simplification, one may claim that there are two dimensions to Ukraine's economic integration into the EU: (i) regulatory integration, which aims at accelerating changes in the legal and regulatory environments to make them consistent with those in the EU; and (ii) day-to-day business integration, which aims at making EU companies comfortable with doing business in Ukraine in terms of a level playing field, enforcement regime, quality of business services, and so forth. From this perspective, actual progress along these two dimensions over the last few years has been rather uneven: the Government paid more attention to regulatory upgrades, and was less concerned about the remaining weaknesses in the business environment. Such an imbalance has to be addressed now: drastic improvements in the business environment would make European businesses a major force for further integration with the EU.

What are the implications of this analysis for Ukraine’s trade policy with respect to the EU? First, agreements with the EU in the form of the PCA and the evolving “new neighbors” initiative should be utilized by Ukraine to address its domestic behind-the-border constraints to investments and trade. Priority should be given to further steps to reform the domestic business environment and upgrade GOU’s investment promotion capabilities with the aim to improve the investment image of the country and move aggressively to increase an inflow of European FDI (Figure 3). This conclusion is fully consistent with the lessons from earlier experiences of European integration, which suggest that major economic gains for EU partners are coming not from EU trade concessions, but from domestic reforms triggered by the integration process and from FDI inflow. Moreover, the recent expansion of the EU provides a major window opportunity for Ukraine to tap investments by firms that have been looking for low-cost locations outside of the EU.

At the more technical level, upgrading the system of standards and conformity assessment, where implementation of the provisions of the PCA has been slow, should be considered a priority. While the implementation of EU and international standards will be a key issue in improving access to the EU and other markets, it will also play a key role in improving quality standards for Ukrainian consumers and in providing for a more efficient and effective conformity assessment system. Standard compliance is an important element of export diversification strategy. Standards serve as a catalyst for technical and administrative change, enabling industries to reach their comparative advantage in new markets.



Second, as argued above, completion of the WTO accession process (based primarily on commitments that are EU-consistent) at the moment is the best option available for Ukrainian policy to accelerate its European integration. Establishing a trade-compatible business climate for foreign investors in Ukraine has more potential for improving access to European markets than opportunities associated with obtaining additional trade preferences from Europe. WTO membership would also allow Ukraine to pursue more effectively the key sector specific trade barriers in the EU that constrain Ukraine’s exports. For instance, the quotas on steel products would have to be removed. Ukraine would be able to participate in negotiations on EU agricultural policies and would have access to the dispute settlement mechanism of the WTO. The latter could have a strong influence, for instance, with regard to antidumping measures in cases if, after WTO accession, the volume of imports from Ukraine suppliers subject to such measures did not exceed the *de minimis* level of three percent.

Third, despite the conflict over the taxing of scrap metal exports by Ukraine, there is an urgent need for the EU to review both its policy regarding Ukraine's market economy status and application of its antidumping practices to Ukraine.

Fourth, there is a case for continuation of EU technical assistance in the trade area, for which needs will remain considerable in both the public and the private sector of Ukraine. Helping small- and medium-size exporters, for example, in the textile and food sectors, to utilize more efficiently trade preferences available to them, as well as upgrading their marketing skills, could be one of the promising directions for such assistance.

Sustainability of Steel Exports

Ukraine's cast iron and steel sector represents at the moment the core part of Ukrainian manufacturing exports. At the same time, the sector represents a broader segment of traditional Ukrainian manufacturing exports that is largely based on outdated technologies and assets inherited from the Soviet era. Ukraine produces about 5 percent of the global steel output. Its 2003 steel exports amounted to US\$6.7 billion and it increased by 70 percent (in nominal U.S. dollars) since 2000.

The analysis suggests that the current implicit strategy of the steel sector operators, which provides for low investment levels and postpones fundamental sectoral restructuring, is likely to retain in the medium term the advantages of Ukrainian steelmakers as lower-cost suppliers of low-end products and sustain current export volumes. This model will be efficient as long as the level of global steel prices is high. However, high material and energy intensity of metallurgical products and low labor productivity may threaten the sector's competitiveness in the future.

Ukraine's steel sector is highly export oriented and its development is strongly influenced by global market trends. Therefore, global integration processes, first of all Ukraine's entry in WTO, will provide the sector, along with other exporters, with significant potential benefits, such as:

- Reduction of limitations on the access of Ukraine's metallurgy products to principal foreign markets.
- Better opportunities for protecting the interests of Ukrainian producers under WTO procedures.
- Improved possibilities for attracting foreign investments.
- Improvements in the domestic business environment due to stabilization and better transparency of the legal and regulation framework.

Trade liberalization will not threaten the position of Ukrainian steel producers on the national market as long as they preserve significant cost advantages. At the same time, Ukraine's entry into the WTO will require the limitation and further abolition of specific existing arrangements that benefit domestic producers, as well as the leveling of competition conditions for domestic and foreign firms. In particular, governmental policies in the sector should be reformed along the following lines:

- Transparent and maximum competitive privatization, including in the coal industry.
- Withdrawal from administrative intervention in market mechanisms (administrative limitation of exports, raw material pricing and transportation tariffs).

- Reforms in the energy tariff policy and a gradual transition to tariffs that are based upon estimates of long-term marginal costs.
- Concentration of budgetary support to the sector on programs that tackle elimination of outdated capacities, implementation of social and environmental measures in vulnerable regions, and financing of R&D and infrastructure projects.

However, if the existing patterns are unchanged, the sector may become unviable by the end of the decade. Ukraine will face the need to pick a new model for the development of its steel sector. In that period the Government and the sector's operators will face serious challenges regarding the need to attract large-scale investments to implement in-depth sectorwide restructuring and settle environmental and social liabilities in the metallurgical regions.

Conclusions

Export development and diversification are crucial to Ukraine's growth. While recent trade performance has been successful, the current trade patterns have been driven by temporary market developments and are unlikely to be sustainable in the longer term. Yet, for export diversification, significant additional domestic reforms are needed in order to facilitate new entry and integration in global value chains, and to attract higher levels of FDI. Indeed, the main obstacles to furthering Ukraine's global trade integration are domestic and relate to improving the business environment. These include ensuring low and uniform tariffs, modernizing customs administration, improving standardization, and reducing administrative barriers for new entry. The potential for expanding trade is large. The best strategy for Ukraine for fostering its global trade integration is through an accelerated completion of WTO accession.

Trade Performance Since the Early 1990s—Looking For its New Role in Global Trade

Main Trends in Trade Performance

This Chapter describes Ukraine's merchandise foreign trade developments, focusing on the recent (since 1996) changes in the geographic and commodity structure of foreign trade, and looks into various indicators of trade performance, such as export specialization, similarity and complementarity of trade with different regions, and degree of intra-industry trade. It highlights such features as significant reorientation of trade flows, low level of trade diversification, and links between export expansion and macroeconomic growth.

Ukraine is a relatively open economy with foreign trade turnover exceeding GDP. It is not surprising then that Ukraine's merchandise trade played a significant role in the recent growth episode. Indeed, recent trends in the foreign trade indicators show a significant correlation with major macroeconomic developments. First, both exports and imports, likewise GDP, hit a low point in 1999. Second, a dramatic improvement in the trade balance following the 1998 financial crisis reveals the major direct role of net exports in the economic growth that followed.

On the eve of independence in 1990, Ukraine's foreign trade was concentrated mainly in the USSR republics. The share of inter-republic exports in total exports was 83 percent, while in imports this indicator equaled 81 percent. Commodity structures of trade flows with the USSR republics and the rest of the world (ROW) were quite different. Ukraine's exports to the ROW were comprised of hard coal (32 percent of total exports to the ROW), machinery and equipment (28 percent), metal products (18 percent), and chemicals (8 percent). Imports from the ROW included machinery and equipment (50 percent), textile and apparel (14 percent), and chemicals (10 percent).¹ Ukraine did not export food

1. *PlanEcon* report of March 13, 1992.

products to the ROW and did not import energy products from the ROW as these products were almost exclusively part of the inter-republican trade.

Ukraine's exports to the other USSR republics were comprised of machinery and equipment (39 percent of total exports to the USSR), food (16 percent), iron and steel (15 percent). The structure of imports from the other USSR republics was dominated by machinery and equipment (36 percent of total imports), light industrial products (14 percent), chemicals (12 percent), and oil and gas (11 percent).²

In short, four turning points can be distinguished in foreign trade developments since 1990 (Table 1.1):

- In 1991, the collapse of the USSR and the ruble zone and destruction of political and economic relations with the socialist countries of Central and Eastern Europe

	1990	1993	1996	1999	2003	1990–2003 change	1993–2003 change
Exports	78,336	11,969	14,401	11,582	23,080	–55,256	11,111
<i>Exports index, 1990=100</i>	100	15.3	18.4	14.8	29.5	–71	93
Imports	81,991	13,885	17,603	11,846	23,021	–58,970	9,136
<i>Imports index, 1990=100</i>	100	16.9	21.5	14.4	28.1	–72	66
Trade balance	–3,655	–1,916	–3,203	–265	59	3,714	1,975
<i>Trade balance, percent of GDP</i>		–5.9	–7.2	–0.4	0.1		6.0
Trade Structure, percent							
Exports	100	100	100	100	100		
CIS	81.2	46.3	51.4	27.7	26.2	–55	–20
Russia	54.6	34.8	38.7	20.4	18.7	–36	–16
ROW	18.8	53.7	48.6	72.3	73.8	55	20
Baltics	1.7	1.1	1.8	1.5	3.8	2	3
EU	5.6	6.4	11.1	20.5	19.8	14	13
Imports	100	100	100	100	100		
CIS	78.3	64.1	63.5	57.8	50.0	–28	–14
Russia	58.0	45.1	50.1	48.0	37.6	–20	–8
ROW	21.7	35.9	36.5	42.2	50.0	28	14
Baltics	2.3	2.1	1.6	1.6	1.1	–1	–1
EU	5.3	8.2	15.4	23.1	25.2	20	17

*Inter-republican trade in 1990 and 1993 is estimated at the official/commercial exchange rate.

Source: Belkindas and Ivanova (1995); World Integrated Trade Solution (WITS), COMTRADE; State Statistics Committee of Ukraine (SSC).

2. See *Voprosy Statistiki*, 1990, Issue 3. These estimates are affected by well-known distortions in the USSR pricing, which would underestimate the share of energy and overestimate the share of consumer goods and machinery (Tarr 1994).

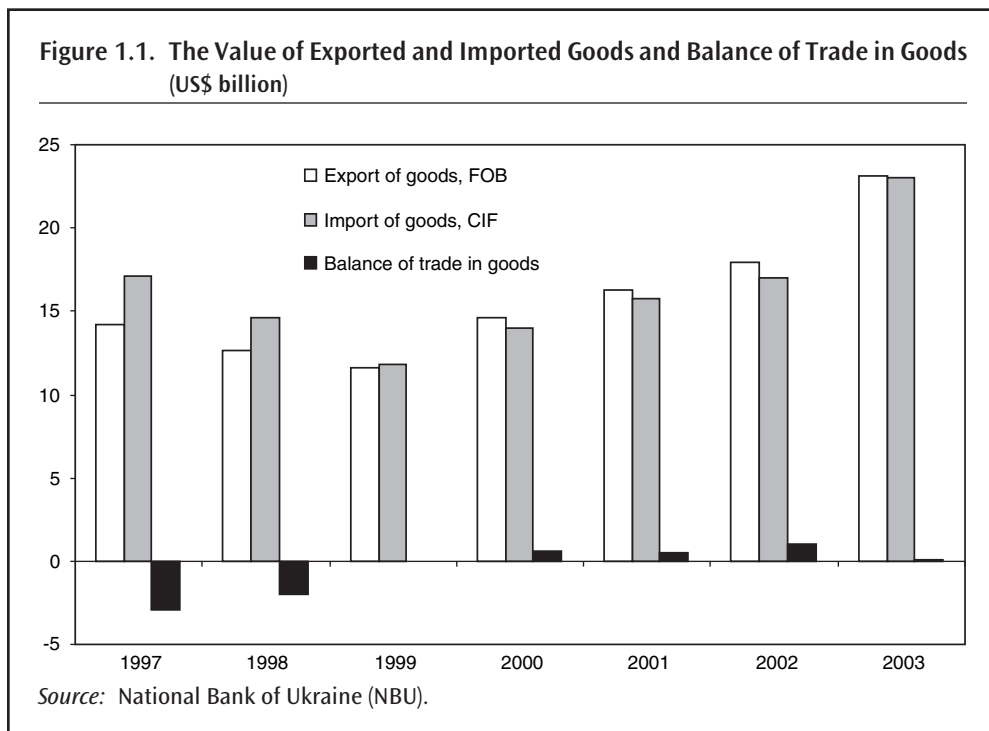
produced a shock for Ukrainian foreign trade that led to its drastic adjustment: by 1993, and Ukraine's exports and imports decreased by about 85 percent in U.S. dollar terms. Due to a sharper decrease of imports than that of exports, merchandise trade balance over 1990–93 increased by US\$1.7 billion. The geographic structure of foreign trade had changed significantly, as the reduction of trade with the CIS was much more dramatic than that of trade with the ROW. As a result, over that period, the share of exports to the ROW rose to 54 percent, and the share of imports from the ROW increased by 36 percent. There had also been changes in the commodity structure of foreign trade with the ROW—Ukraine started to export new products like food and textiles. A slower decrease in the share of the CIS in imports apparently indicated Ukraine's dependency on fuel imported mainly from Russia.

- In 1993, both exports and imports resumed their growth, while the trend of trade reorientation discontinued. The share of the ROW in imports almost did not change through 1996 (36.5 percent in 1996 versus 35.9 percent in 1993), while the share of the ROW in exports even decreased by 5 percentage points to 49 percent. After the initial shock-induced drop in trade, especially with the CIS, enterprises started to adjust to new realities. While the general pace of structural reforms had been slow over the period, this pickup in trade most likely reflected the correction of major “undershooting” in the first years of independence. Ukrainian producers found new schemes of cooperation with their former counter-agents in the CIS. Additionally, the terms-of-trade shock of higher energy prices contributed to the high value of imports.
- In 1996, the trend had changed again: both imports and exports declined, while shares of the ROW in exports and imports noticeably increased through 1999 (by 24 percentage points and 6 percentage points respectively).
- Since 2000, exports and imports have been growing rapidly. In 1999–2003, total merchandise exports increased by about 100 percent. The CIS' share has further declined in imports, while it has remained almost unchanged in exports.

As a result, in 2003, merchandise exports and imports were still about 70 percent lower than in 1990. However, comparisons to 1990 may be misleading, as 1990 trade estimates are likely to be highly inflated.³ Compared to 1993, 2003 exports increased by 93 percent and imports grew by 66 percent. Over 1990–2003, the share of the CIS declined by 55 percentage points in exports and by 28 percentage points in imports. The more moderate decline of the CIS share in imports still indicates a high dependency on CIS energy supplies. In the rest of this Chapter, we look into foreign trade developments since 1996 in more detail.

Overall, the recent export expansion in Ukraine was quite impressive (Figure 1.1). This export growth could not be attributed only to improved external factors such as market prices and access. It reflects considerable positive changes that took place in the Ukrainian economy, first of all in the area of enterprise restructuring. It is worth noting that in the

3. A considerable portion of trade flows in the USSR was due to uneconomical movements of goods across the country and was directed by Gosplan and sectoral ministries and driven in many cases by non-economical considerations. Additionally, it is believed that U.S. dollar equivalents of prices for Soviet machinery equipment were upward biased.



mid-1990s world prices for Ukraine's main exports were rather high; however, the country's export performance was much weaker than it is today.

Ukraine's strong trade performance has been a factor that made a major contribution to recent economic recovery and growth acceleration in the country. About 40 percent of total GDP growth in 1999–2002 could be attributed to the increase in net exports. Indirect effects of trade performance on growth were also significant (see also Box 1.1).

Since independence, the trade balance has been a major determinant of Ukraine's macroeconomic developments. Through the first half of the 1990s merchandise trade balance had been in deficit that widened to 7.2 percent of GDP in 1996. The deficits had been a source of the macroeconomic instability of the early 1990s and had been financed mainly by rapid growth of the external debt and accumulation of energy arrears to Russia. After high inflation in 1993–94, Ukraine started an exchange rate-based stabilization in 1995. As a result of the real appreciation of the national currency, the merchandise trade deficit further widened in 1996–97. By that time, an emerging T-bills market became an important source of deficit financing. The Asian crisis of 1997 and the Russia crisis of 1998 led to both a decline in trade flows and the major real depreciation of the hryvnia that eventually turned the trade balance into surpluses and facilitated macroeconomic stability.

Starting from 1999, Ukraine has been running trade and current balance surpluses, while in 1997 its current account deficit exceeded 3 percent of GDP. The balance in trade in goods and services improved from a deficit of US\$1.5 billion in 1997 to the average surplus of about US\$1.2 billion for 1999–2003. The initial improvement in trade balance was

driven by a major import contraction in 1999. Thereafter, export growth was higher than growth in imports, which had an additional positive impact on trade balances.

Trade in services has constituted a relatively small share in foreign trade turnover, not exceeding 20 percent over 1996–2003. Similar to merchandise export dynamics, exports of services decreased over 1996 and turned to growth in 2000 (Figure 1.2). In 2003, exports of services for the first time exceeded the 1997 level. Import of services over 1996 was fluctuating around US\$2.5 billion, but starting 2000 it began to grow dramatically and in 2003 imports of services was 60 percent higher than in 1999.

Transportation services make up about 75 percent of the total exports of services, two-thirds of which are pipeline services. Thus export of services is largely determined by bilateral agreements with Russia regarding the amounts and tariffs of transit gas, which did not change significantly in recent years. In addition, Ukrainian ports and railways generate considerable export proceeds from participating in Russian and other CIS trade. The structure of imported services is more diversified.

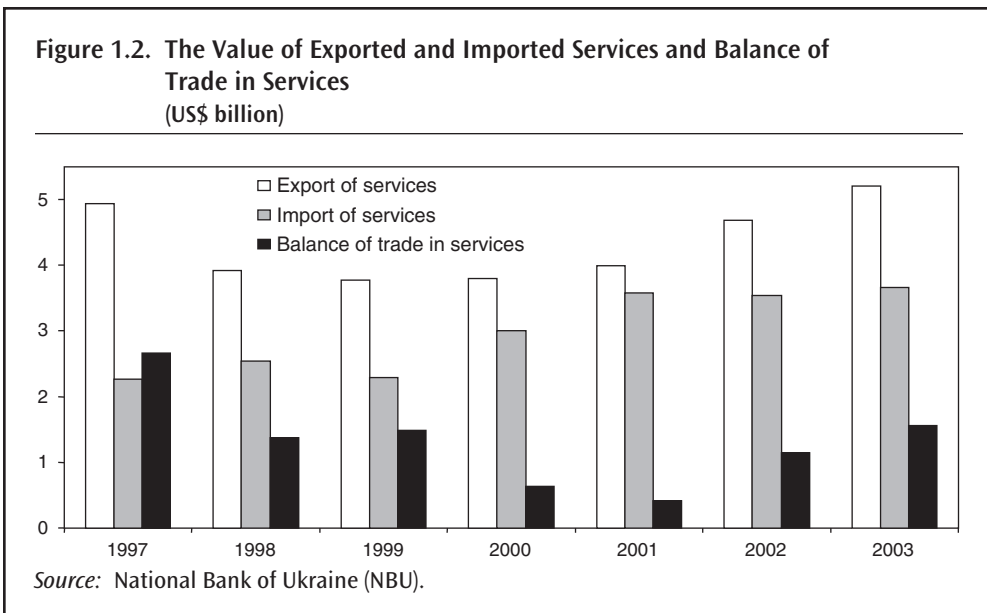


Table 1.2 compares Ukraine with Russia, other CIS countries, Poland and the EU on a number of foreign trade performance indicators. The following observations are worth mentioning:

- *Ukraine is a relatively open country* in terms of merchandise foreign trade. Trade turnover exceeds the GDP, while for Russia, Poland, and the EU this ratio is close to 60 percent.⁴ Only relatively small CIS countries have openness that is higher than in

4. This may also be an indication that GDP in Ukraine remains much more seriously underestimated than in any of its neighbors. IMF (2003) provides additional evidence in support of the hypothesis that Ukrainian GDP is “more than average” underestimated.

Ukraine. Analysis of the trade openness models for the CIS countries, done by Freinkman et al. (2004), suggests Ukraine is overtrading, compared to the model predictions, and in this sense it is among the best performers in the CIS (Table 1.3).

- *Merchandise exports per capita are still low.* They are of the same magnitude as in the other CIS countries but times lower than in Russia, almost 4 times lower than in Poland, and 20 times lower than in the EU.
- *Ukraine has a share of manufacturing trade twice that of its CIS peers, but it lags well behind Poland and Germany.* While two-thirds of Ukraine's exports are manufacturing (of which half is iron and steel), in Poland this share exceeds 80 percent. One of the likely reasons is the magnitude of the FDI. During 1996–2002, Ukraine managed to attract only 1.6 percent GDP of FDI per annum. At the same time, the average annual FDI inflow to Poland over the period equaled 36 percent of GDP.

Table 1.2. Trade Performance of Ukraine: Comparative Perspective
(2002 data in US\$ million unless otherwise stated)

	Ukraine	Russia	CIS-10 (excl. Ukraine and Russia)	Poland	Germany
Export of goods per capita	368.0	746.9	329.7	1210.1	7481.6
Export of goods, ratio to GDP, percent	43.2	31.1	58.3	24.7	31.1
Import of goods per capita	348.5	423.2	311.9	1397.8	5928.2
Import of goods, ratio to GDP, percent	40.9	17.6	55.2	28.6	24.7
Trade balance, ratio to GDP, percent	4.3	10.4	−3.1	−3.7	6.5
Openness, percent	103.6	59.6	139.8	59.5	55.8
Export of goods growth, percent, average for 1996–2002	3.7	3.1	5.8	9.2	2.8
Import of goods growth, percent, average for 1996–2002	−0.6	−1.8	2.1	7.6	1.3
Share of manufacturing (groups 5–8 excluding 68, using the SITC revision 2) exports in export of goods, percent	67.3	21.6	27.1	82.1	85.9
Share of CIS in export of goods, percent	24.4	8.7	18.1	6.3	2.5
Net FDI per capita, cumulative for 1996–2002	90.4	39.0	217.8	1088.7	−407.3
Net FDI, ratio to GDP, percent, average for 1996–2002	1.6	0.3	5.2	3.6	−0.1

Source: DOTS, IFS, WDI, SSC, NBU.

While Ukraine's trade performance has been weaker than that of its CEE neighbors, such as Poland, when it is compared to smaller economies in the CIS (CIS-7), recent trade developments in Ukraine were more successful, despite the fact that four CIS-7 countries are already WTO members. This stronger export and trade, as shown in Table 1.3, performance is also reflected in: (i) higher growth rates of overall merchandise exports in Ukraine; (ii) higher shares of manufacturing export; (iii) more advanced re-orientation of trade flows out of the CIS to global markets; and (iv) higher incidence of intra-industry

Table 1.3. CIS Actual versus Theoretical Trade Openness

	Exports plus imports to GDP in current US\$			Exports to GDP in current US\$		
	Actual Openness		(actual/ predicted)	Actual Openness		2001 realization realization ratio (actual/predicted)
	(%)			(%)		
	1995	2001	1995	2001		
Armenia	8.6	72	0.57	24	26	0.39
Azerbaijan	86	81	0.70	32	42	0.74
Belarus	104	139	1.12	50	68	0.65
Georgia	68	60	0.50	26	22	0.38
Kazakhstan	83	95	0.90	39	46	0.96
Kyrgyz Republic	72	73	0.61	29	37	0.64
Moldova	130	124	1.03	60	50	0.91
Russian Federation	52	61	0.70	28	37	0.80
Tajikistan	..	140	1.31	..	64	1.31
Turkmenistan	71	94	0.74	35	47	0.77
Ukraine	97	111	1.19	47	56	1.22
Uzbekistan	74	56	0.59	37	28	0.95
Averages:						
CIS—7	86	87	0.76	35	38	0.76
Central CIS	84	101	0.98	41	52	0.91

Source: Freinkman, Polyakov, and Revenco (2004).

Note: Realization ratios were estimated as ratios of actual trade/export volumes to their values, predicted on the basis of the gravity model suggested by Frankel (1997).

trade. But the reasons for such a comparative success relate more to the following historical factors and post-Soviet endowments, and less to the trade policy (Freinkman, Polyakov, and Revenco 2004):

- Ukraine inherited a stronger industrial base and managed to preserve a larger share of it, including through various subsidies during the initial years of transition. A dominant share of Ukrainian exports is heavily concentrated in a handful of traditional post-Soviet producers, for example, in metallurgy, oil products, and chemicals.
- Ukraine inherited much stronger (but less than Russia) marketing capabilities, which helped it to preserve some traditional high-value market niches (such as arms, nuclear, and space technologies). For various political reasons, Ukraine was much more successful in preserving cooperation with Russia in these sectors than the CIS-7 countries.
- Ukraine also benefited from its location (especially proximity of the European markets), which provided it considerable advantages relative to the smaller CIS economies in the Caucasus and Central Asia.

Merchandise Trade Dynamics in 1996–2003

Over the period 1996–2003, the total value of merchandise exports increased by 60 percent. Of this increase, 31 percent was attributed to the growth of volumes, and 69 percent was explained by unit value growth.⁵ Two subperiods in export dynamics should be distinguished since 1996: exports were falling from 1996 through 1999 (cumulatively, export value decreased by 20 percent over the three years), and exports have been growing thereafter (over 2000–03, export value increased by 100 percent).

The factors of an export decline in 1996–99 included:

- *Declining exports prices.* In general, the unit value of merchandise exports, according to our estimates, diminished by 11 percent over 1996–99.
- *Decline of demand in the CIS* (major trade partners of Ukraine during that period) due to continuation of their economic decline. This drop in demand for Ukrainian export in the CIS was not offset by export reorientation, as exports to the rest of the world (ROW) increased only by 9 percent over 1997–99.
- *Real exchange rate appreciation.* An exchange rate-based stabilization of the new Ukrainian currency—hryvnia—resulted in a real effective appreciation of 41 percent in just two years (between December 1995 and December 1997).⁶ Strengthening of the currency undermined the price competitiveness of exports from Ukraine, as there was a limited capacity to withstand the exchange rate fluctuations with products differentiation.
- *Traditional supply-side factors*, such as poor quality of enterprise management, slow restructuring, poor property rights, undeveloped and monopolized infrastructure, and so forth.

Then a surge of 26 percent in merchandise exports in 2000 compensated for the decline during three previous years. Berengaut and others (2002) and CASE (2002) consider this to be the primary factor of Ukraine's economic recovery since 2000. The likely determinants of this rapid increase in exports in 2000 were the following:

- *Growing exports prices.* According to our estimates, the unit value of merchandise exports increased by 14 percent.
- *Real depreciation of the hryvnia relative to western currencies.* The 1998 regional financial crisis led to a boost in competitiveness of Ukraine's exports in non-CIS markets.
- *Rapid economic growth of Ukraine's trade partners in 2000*, especially of Russia, brought about an increase in demand for key Ukrainian exports. The fastest export growth in 2000 was observed in the traditional export sectors (metals, chemicals, machinery and equipment), though exports of all other commodity groups apart from agricultural commodities also expanded.

In 2001–02, export growth significantly slowed down to 12 percent and 10 percent respectively, but it remained quite high and on average it was higher than that of imports. Partially

5. The relative contribution of volumes and unit values was calculated through 2003Q2.

6. According to the IMF's *International Financial Statistics*.

such dynamics can be explained by slower economic growth of Ukraine's trade partners, stabilization of world prices for traditional exports/metals, increased trade barriers in major trading partners (Russia, US, EU), and some real appreciation of the hryvnia. Over this period, agricultural produce and mineral products made the biggest contribution to total export growth, while export of chemicals, metals, machinery and equipment grew slowly or declined.

In 2003, exports again accelerated to 29 percent, in many respects repeating the 2000 surge. They were driven by higher world prices for main exports, by large contributions from the traditional sectors such as iron and steel and chemicals, and by a pick up of machinery and equipment exports to the CIS.

Overall, for the period 1996–2003, the statistical analysis suggests that important determinants of export dynamics were external demand, real exchange rate dynamics, unit value of exports and to some extent changes in the policies of trade partners (see also Box 1.1). The impact of real depreciation has been much stronger on import than on exports so far, but it is expected, based on international experience, that eventually it will help exports as well. In addition, the supply factors, related to major improvements in capacity utilization, were also significant.

Despite the dramatic strong export expansion since 1999, the analysis suggests that the medium-term sustainability of current export trends remains of concern. The primary drivers of the recent export expansion relate to such factors as major growth in export unit value (especially for metals and oil products) and the one-time effect of recovery in traditional manufacturing (metallurgy, oil processing, and chemicals), which was largely driven by privatization, management change, and dramatically improved capacity utilization. About half of the total export growth in 1999–2003 could be attributed to favorable price dynamics. Ukraine cannot consider these factors to be permanent engines of export expansion. As is shown below, the contribution to recent export growth from new export products and new exporters was small. In particular, in the 2004 survey of 500 Ukrainian exporters, less than 9 percent of respondents were new exporters that started to sell abroad after 2000. Further, investments by large traditional exporters, such as in the steel sector, while increasing relative to the mid-1990s, remained low by international standards (see also Chapter 4).

Ukraine's terms of trade have been relatively stable (Fig. 1.3). This is because, despite significant fluctuations in both import (driven primarily by energy) and export (metals) unit prices, these fluctuations have shown a strong correlation since 1996. Since the lowest point in 2001, there has been an improvement in the terms of trade index in 2002–03 by 8 pp., which made a further contribution to strengthening the country's balance of payments.

Over 1996–2003, total merchandise imports had grown by 31 percent. However, similar to exports, imports first declined by 33 percent in 1996–99 and then surged by 94 percent since 1999.

Commodity Structure of Trade

Figure 1.4 shows the commodity structure of Ukraine's exports in 2003. Iron and steel made up one-third of exports. Together with mineral products and chemicals it accounted for almost 60 percent of the total. Machinery and equipment and vehicles accounted for about 15 percent of merchandise exports. The share of the agro-food sector's exports barely exceeded 10 percent.

Box 1.1. Determinants of Ukraine's Merchandise Trade and Trade-Growth Links

One of the background papers for Ukraine's *Country Economic Memorandum (2004)*⁷ analyzes the main determinants of the trade dynamics for the period 1996–2003. The paper also explores the links between trade and growth performance. The main findings of the paper, supported by the econometric estimation of the structural trade equations, are the following:

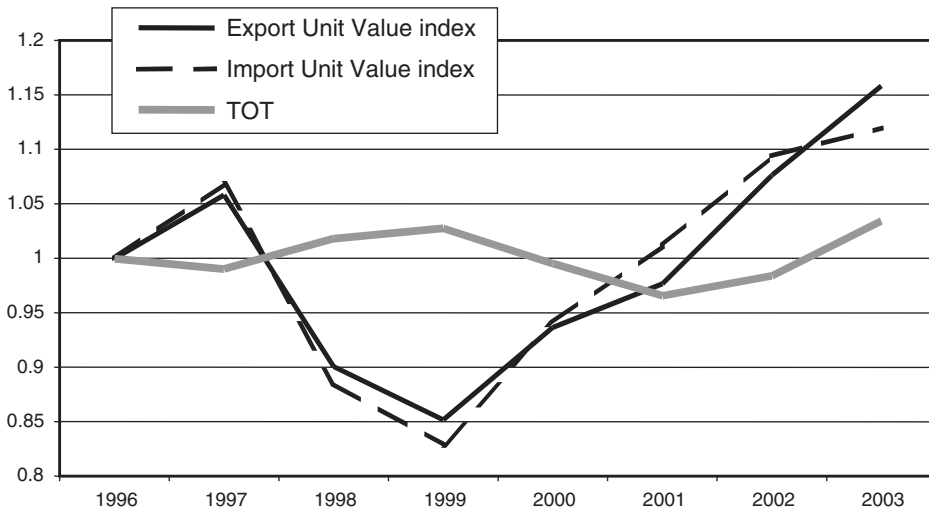
- Ukrainian foreign trade flows are sensitive to market signals, such as changes in relative prices and incomes, as well as changes in policies. More generally, Ukraine is very sensitive to external shocks through trade. While the real depreciation of the hryvnia improves the merchandise trade balance (without gas imports), the economy's response to the real depreciation, however, has been more through import substitution than through export expansion. The trade flows with the CIS countries are more responsive to market signals, probably reflecting more substitutability between products in the region.
- The direct positive link between trade performance and recent growth in Ukraine can be seen through the dramatic improvement in the trade balance and respective expansion in net exports. During 1996–2002, the merchandise trade balance improved by US\$4.2 billion. Export volumes grew by 19 percent over 1996–2002, and non-gas import volumes contracted by 20 percent over the period.
- Trade improvements also influenced Ukraine's growth performance positively through a number of indirect channels. First, the real devaluation of 1998–99 helped domestic producers to benefit from price competitiveness and to use this window of opportunity to expand their export markets. Second, the resulting trade and current account surpluses have been among the key elements of macroeconomic stability that boosted confidence, allowed for a longer-term planning horizon for the private sector, and stimulated an increase in money demand. Third, increased profits allowed exporters to expand investments. Fourth, spillover effects from exporters were noticeable, and they worked through an increase in demand for domestic inputs and transfer of new knowledge and technologies, etc.
- The major concern is that the long-run growth elasticity of exports to the ROW's incomes has been less than one (0.8), implying that Ukrainian exports to the ROW (a proxy to the world economy) are growing slower, other things being equal, than the world economy itself. Low export elasticity on foreign incomes implies that the existing export structure, if not improved, will limit opportunities for further growth expansion. The underlying reason might be that the commodity structure of exports is heavy with primary goods and metals. The fact that the export sector has played a significant role in the recent growth episode has more to do with growth in export unit values and real exchange rate depreciation, and less with increased productivity of exporters. However, as world prices are difficult to predict, and the real exchange rate for the hryvnia might well appreciate in the medium term, the export structure should improve dramatically before it could become a determinant of sustainable growth.

Export growth has been highly concentrated. Over 1996–2003, two sectors—iron and steel and mineral products—contributed three-quarters (72 percent) of total exports growth.⁸ However, the importance of these commodity groups has declined since 1999 and export growth has become somewhat more inclusive: over 1999–2003, iron and steel and mineral products contributed only 45 percent of total export growth. Another important change occurred with the agro-food sector. While its contribution was negative for the whole period (–5 percent), more recently it revived with an 11 percent contribution to the 1999–2003 growth.

7. See Pindyuk and Piontkivsky (2004).

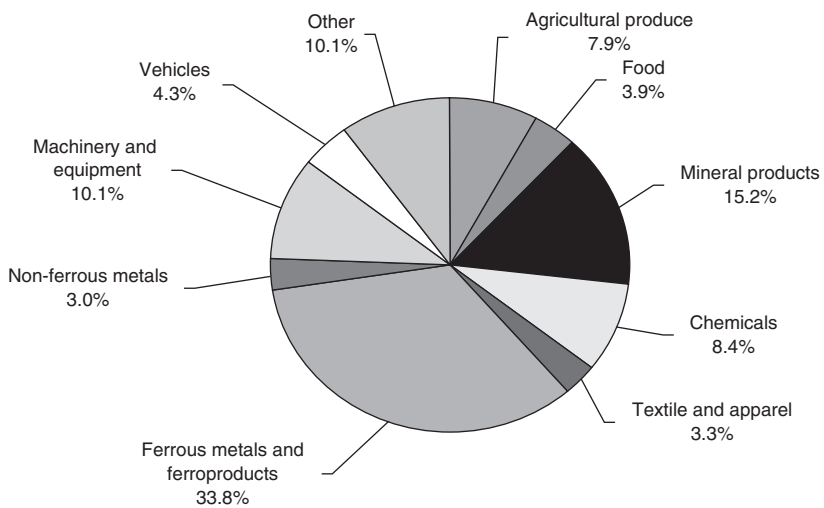
8. Another 11 percent came from growth in machinery and equipment exports.

Figure 1.3. Dynamics of Ukraine's Terms-of-Trade (TOT) Index, 1996–2003



Source: Own estimates based on data from the State Statistical Committee.

Figure 1.4. Commodity Structure of Ukraine's Exports in 2003 (Percent)



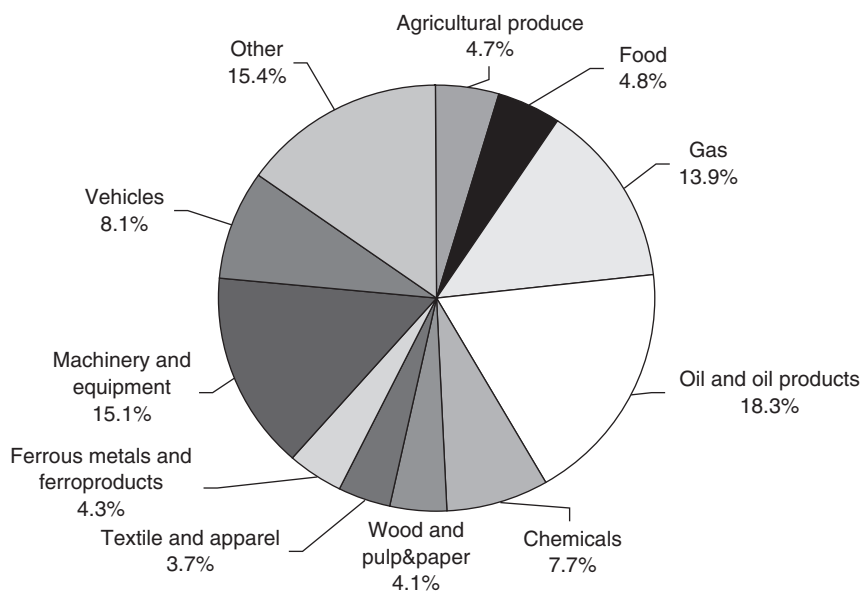
Source: SSC; authors' calculations.

Overall, the Ukrainian export structure is heavily biased toward so-called “sensitive” commodities (such as metals and chemicals) that are particularly exposed to protectionism in OECD markets (Aslund 2003). Such goods compete primarily by price, which makes them highly sensitive to changes in world market conditions; moreover, they often compete in highly protected markets. Thus, the position of Ukrainian exporters in external markets has been vulnerable due to a large number of antidumping investigations initiated recently.⁹ Various implicit subsidization schemes, used by the Ukrainian government in this period, at least in part provided a reason for such proliferation of anti-dumping investigations.

Figure 1.5 presents the commodity structure of Ukraine’s imports in 2003. Mineral products constituted more than one-third (37 percent) of total imports. Machinery and equipment and vehicles accounted for 23 percent of the total. The agro-food sector’s imports made up almost 10 percent, while chemicals accounted for 8 percent. It is worth noting, however, that in 2003 agricultural imports were higher than usual because of the poor harvest. In more typical years (e.g., 2000–01), the share of the agro-food sector in imports did not exceed 6 percent.

There had been noticeable changes in the commodity structure of imports. The share of mineral products declined by 13 percentage points from one-half of total imports in 1996. There had been even more dramatic changes inside the group: while the share of gas dropped by 22 percent, the share of oil and oil products had increased by 9 percent. Dur-

Figure 1.5. Commodity Structure of Ukraine’s Imports in 2003
(Percent)



Source: SSC; authors’ calculations.

9. According to the data provided in the IMF (2003, p.50), over 1995 to the first half of 2002 Ukraine was subject to 37 anti-dumping measures, with the share of the country in the global number of antidumping measures (3.2 percent) significantly exceeding its share in world exports (0.3 percent).

ing this period the share of oil products had declined and the share of crude oil increased, as privatization of Ukraine's refineries facilitated an emergence of the new major export sector. Another important change was that the share of vehicles in total imports more than doubled from 3 percent to 8 percent over 1996–2003.

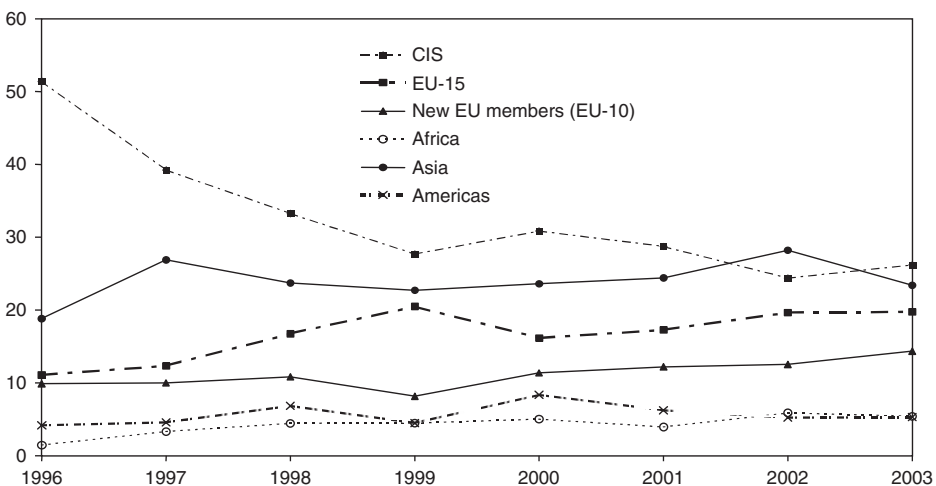
Geographic Structure of Trade

Since the mid-1990s, the geographic structure of Ukraine's merchandise exports has significantly changed. The dynamics of the structure is depicted in Figure 1.6. Over 1996–2003, the CIS share in Ukraine's exports almost halved (decreased by 25 p.p.) to 26 percent. The steepest decline of the CIS share in exports was during 1996–99, when the share decreased by 23.7 percentage points. In absolute terms, exports to the CIS decreased by 57 percent over 1996–99 (Figure 1.7). Since then, the share of the CIS fluctuated with increases in 2000 and 2003, and a decline in 2001–02.

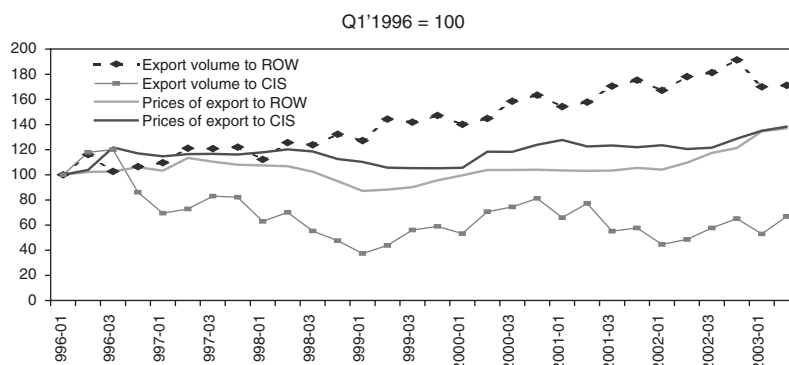
It is noteworthy that the CIS remains the principal export market for the following merchandise groups with a high degree of processing: food (about 80 percent of total exports in 2002), vehicles (70 percent), and machinery and equipment (55 percent).

The driving force behind the trend in CIS trade has been the Russian Federation. Russia traditionally has been Ukraine's primary export market. In 1996, the share of Russia in merchandise exports was 39 percent. The high level of mutual trade is primarily due to close links between the two countries established during the Soviet era: Ukraine and Russia have had "highly integrated production and consumption chains, infrastructure for trade and business networks" (Djankov and Freund 2000). The fact that many producers in both countries have been closely related under the framework of vertical integration allowed for development of intra-industry trade, which has been substantially higher than in Ukraine's trade with the ROW.

Figure 1.6. Geographic Structure of Ukraine's Exports
(Percent)



Source: State Statistics Committee; authors' calculations.

Figure 1.7. Indices of Physical Volumes and Prices of Ukraine's Exports to the CIS and ROW

Source: State Statistics Committee; authors' calculations.

Over 1996–2003, the share of Russia in exports decreased by 20 percentage points to 18.7 percent, and it hit the lowest point in 2002 with only 17.8 percent (Box 1.2). Though the other CIS countries account for relatively small shares of Ukraine's exports, the following changes are worth mentioning: (i) export shares of both Belarus (1.5 percent of total exports in 2002) and Uzbekistan (0.4 percent) declined by a factor three, while the share

Box 1.2. Comparative Dynamics of Exports to Russia from Ukraine and Belarus

Table 1.4 presents the evolution of export flows from Belarus and Ukraine to the Russian Federation starting from Soviet times to 2002.¹⁰ Both countries had relied on machinery and equipment exports to Russia to the same degree in Soviet times—about one-fifth of their total exports. However, while Belarus' share of machinery and equipment exports to Russia in total exports declined to date by only one-fourth to 15 percent, Ukrainian exports dropped almost four times to 5.6 percent. In Soviet times, Ukraine's machinery exports to Russia were 2.7 times larger than those by Belarus. In 1999, Belarusian exports were double those of Ukraine. The gap has been closing gradually since 2000.

At the same time, this also means that Belarus' exports remain sensitive to economic developments in Russia, while Ukraine has significantly diversified its trade by now and is less vulnerable to changes of demand in Russia. In 1990, the share of Russia in Belarus' exports accounted for 41.5 percent of the total. After the collapse of the Soviet Union, the share of exports to Russia actually increased and peaked in 1998 (65.2 percent). Though the importance of the Russian market declined recently, it still accounts for half of total merchandise exports. The share of machinery and equipment in exports to Russia remained quite stable over 1998–2002 and accounted for some 30 percent.

In contrast with Belarus, the share of Ukraine's exports to Russia declined from more than half of the total exports in 1990 to less than one-fifth in 2002. At the same time, the relative importance of machinery and equipments in trade with Russia has increased since the mid-1990s: from one-fifth in total exports to Russia in 1996, to one-third in 2002. Still, in Ukraine the exports of machinery and equipment to Russia equal less than 6 percent of its total exports.

By 2000, the employment in the machinery and equipment sector in Ukraine dropped to about 35 percent of the 1990 level. Belarus so far managed to avoid a major breach of trade links in this labor intensive sector with considerable backward linkages to domestic economies.

10. The data for 1990 should be treated with caution, as it depends a lot on prevailing prices and the exchange rates used for the conversion of inter-republican trade.

Table 1.4. Comparative Dynamics of Machinery and Equipment Exports to Russia from Ukraine and Belarus
(US\$ million)

	1990	1996	1999	2000	2001	2002	Change, 1990–2002, percent
Ukraine							
Total exports	78335.9	14400.8	10332.7	14572.6	16264.7	17957.1	–77.1
Exports to Russia	42794.6	5577.4	2113.0	3515.6	3679.5	3189.1	–92.5
Share in total exports, percent	54.6	38.7	20.4	24.1	22.6	17.8	–36.9
Exports of machines, transport equipment to Russia (SITC 7)	16766.9*	1091.3	467.1	696.9	889.3	998.3	
Share in exports to Russia, percent	39.2*	19.6	22.1	19.8	24.2	31.3	–20.1
Share in total exports, percent	21.4*	7.6	4.5	4.8	5.5	5.6	–15.8
Belarus							
Total exports	32631.0	5652.0	5908.9	7331.1	7450.6	8020.9	–75.4
Exports to Russia	13557.9	3024.4	3222.0	3715.7	3962.7	3977.1	–70.7
Share in total exports, percent	41.5	53.5	54.5	50.7	53.2	49.6	8.0
Exports of machines, transport equipment to Russia (SITC 7)	6303.1*	1033.3	972.2	1183.9	1240.4	1186.7	
Share in exports to Russia, percent	46.5*	34.2	30.2	31.9	31.3	29.8	–35.8
Share in total exports, percent	19.3*	18.3	16.5	16.1	16.6	14.8	–4.5

*Estimates, based on inter-republican trade in 1988.

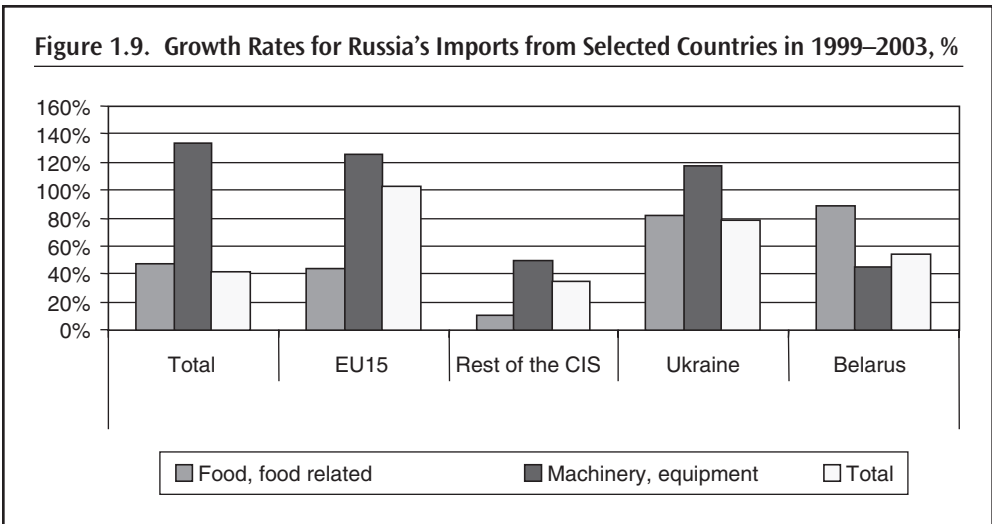
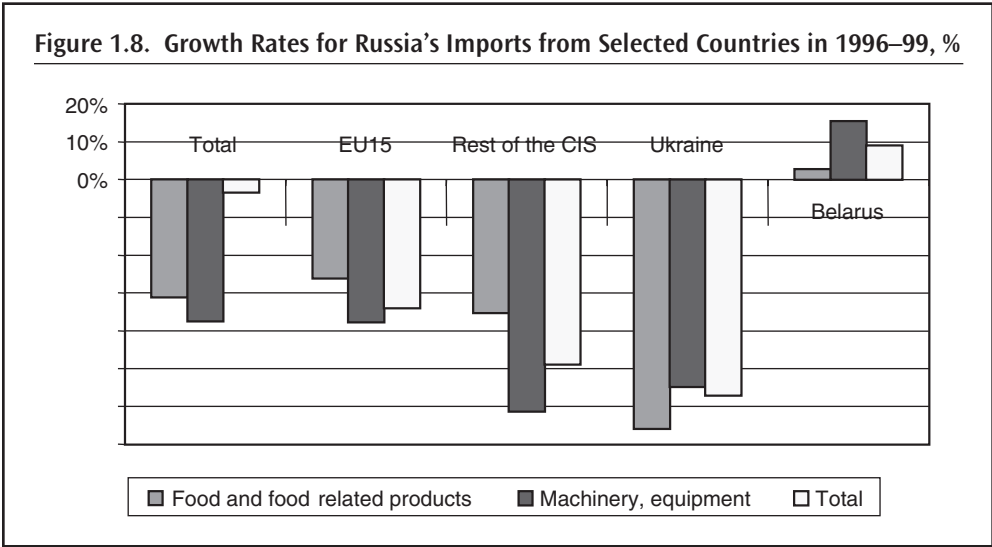
Note: Inter-republican trade in 1990 is estimated at the official/commercial exchange rate.

Source: Belkindas and Ivanova (1995); *Voprosy Statistiki*, 1990, Issue 3. Ministry of Statistics and Analysis of the Republic of Belarus, WITS; COMTRADE.

of Turkmenistan (0.8 percent) by a factor of two (for all these countries, which retained substantial elements of a planned economy, the decline occurred primarily before 1999); and (ii) the export share to Kazakhstan (1.3 percent) increased by a factor of two, mostly after 2000.

At the same time, it is worth noting that there is no sign that since 1999 Ukraine has been losing its share of the Russian market to other competitors. Despite the continuation of the steady trade diversification process, in 1999–2003 Ukraine's exports to Russia grew faster than Russia's overall imports (Figures 1.8 and 1.9). Accordingly, Ukraine's share in Russia's imports increased to about 7 percent in 2003.¹¹ In this respect, Ukraine has performed much stronger than most other CIS members, who have been losing their shares of Russia's market rather quickly. It is believed that the real depreciation of the hryvnia relative to the Russian ruble was supportive of preserving Ukraine's competitiveness. Maintaining its

11. This share amounted to 13 percent in 1996, but it declined to 6 percent in 1999 (see also Figure 1.8).



competitiveness in Russia is quite important for Ukraine, especially from the medium-term perspective: for the next several years Russia is likely to grow faster than the EU.

The decline in the share of CIS exports was not related to price dynamics. While price dynamics were more favorable for Ukrainian exports at non-CIS markets, the difference in respective price indices was modest (Figure 1.7).

The following non-CIS regions of Ukraine’s exports destination can be recognized: the European Union (EU-15), the new EU members (EU-10),¹² the US, Asia and Africa. The main export commodities to the ROW are textiles and apparel (97 percent of total exports in 2002), mineral products (92 percent), ferrous (88 percent) and non-ferrous metals (88 percent).

12. By the new EU members we denote the following 10 countries: Estonia, Cyprus, Czech Republic, Hungary, Latvia, Lithuania, Malta, Poland, Slovak Republic, and Slovenia.

Exports to the EU and the United States are comprised mainly of semi-finished goods. The main export items to the EU are scrap metals, semi-finished iron or steel products, and agricultural commodities, in particular sunflower seeds and wheat (together these account for more than half of Ukraine's exports to the EU). Ferrous metals make up the biggest share of Ukrainian exports to the United States (about 60 percent in 2002). Over 1996–2003, the share of the EU in Ukrainian exports increased by 8.7 percentage points (to 19.8 percent), the share of the United States—by 0.5 of a percentage point (to 3.1 percent). Notably, the highest share of the United States in Ukraine's export was in 2000, when it reached 5 percent, but after that it has been decreasing steadily. The sharpest increase in the share of the EU occurred through 1999, when it reached 20.5 percent. Among the EU members, Ukraine's exports were most successful on markets of Germany and Italy: the combined share of these two countries increased by 6.3 percentage points over 1996–2003, and equaled 11.7 percent of total exports in 2003.¹³

Exports to the new EU members have also been on a growing trend. Their share in Ukrainian exports increased by 4.4 percentage points to 14.3 percent over 1996–2003, with a major increase since 1999. The main exports to this region have been mineral products and metals. Asia and Africa (their shares in 2003 were 23.4 and 5.4 percent respectively) have become increasingly important directions for Ukrainian exports: during 1996–2003, their shares in total exports increased by 5.4 percentage points and by 4.0 percentage points respectively. Main export commodities to these regions have been metals and chemicals.

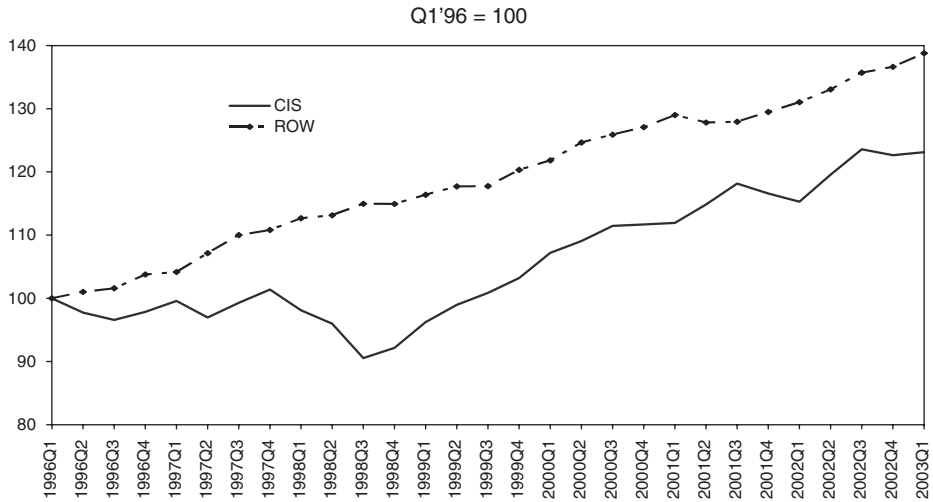
Overall, the main changes described above in the geographical composition of Ukraine's exports during 1996–2003 (for more detailed information see Statistical Annex) were driven primarily by the following factors:

- *Relative changes in the size of export markets.* Figure 1.10 depicts quarterly indices of CIS GDP (proxied by Russian GDP), and ROW GDP (proxied by the weighted GDP of EU, USA, Turkey, China, Poland and the Slovak Republic). Over the period 1996 to Q1 2003, GDP of the CIS grew on average slower than that of the ROW mostly because of the economic decline during the 1998 crisis. As mentioned above, during these years, the share of the CIS in exports shrank most noticeably.
- *Movements of the real exchange rates (RER).* Overall, during 1998–2003, the hryvnia has depreciated by more than 25 percent in real terms (Figure 1.11). Relative to its peak in early 1999, the hryvnia lost about 40 percent of its real value. This cumulative real depreciation supported the price competitiveness of Ukrainian exports. Two main periods of real depreciation included 1999 and 2002–03. The post-1999 cumulative depreciation was unevenly distributed, however, as the hryvnia depreciated mostly to CIS currencies. During 1998–2000, the real exchange rate of the hryvnia had been moving in opposite directions against the Russian ruble and non-CIS currencies (most notably the EURO and the U.S. dollar). This relative dynamics became much closer recently.¹⁴
- *Policies of trading partners.* Higher trade barriers to exports of metals and chemicals in the form of antidumping duties in the United States, EU, Russia and other countries,

13. Germany and Italy accounted for 72 percent of EU export share growth over 1996–2003, and they consume 60 percent of Ukraine's exports to the EU.

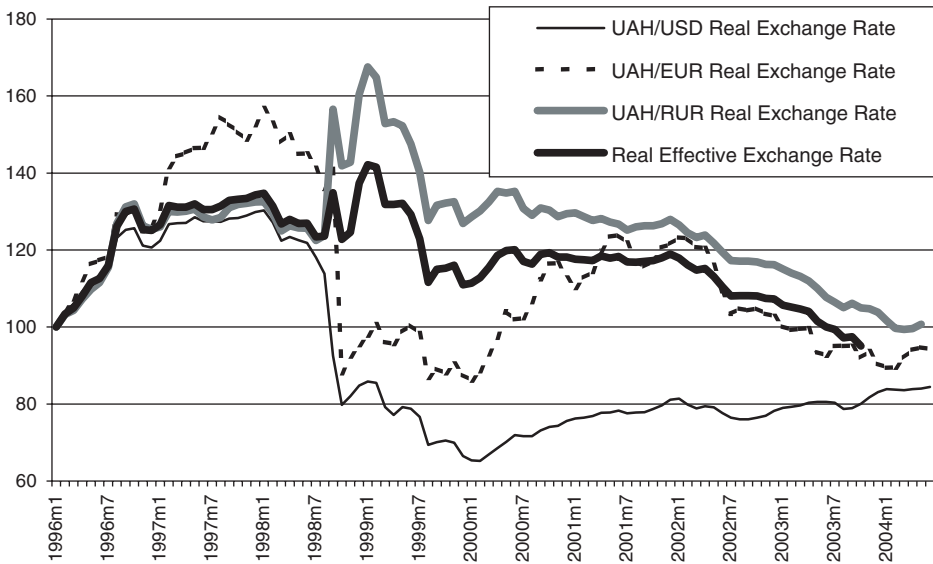
14. There has been de-facto targeting of nominal UAH/US\$ rate in Ukraine since early 2000.

Figure 1.10. The Seasonally Adjusted Indices of GDP in the CIS and ROW



Source: International Financial Statistics; authors' calculations.

Figure 1.11. Real Effective Exchange Rate, 1995 = 100



Source: IFS; staff estimates.

especially in 2001–02, made Ukrainian exporters diversify their sales, expanding to Southeast Asian and African countries. Moreover, starting from 2001, Russia launched antidumping and special measures aimed at Ukraine's food exports.

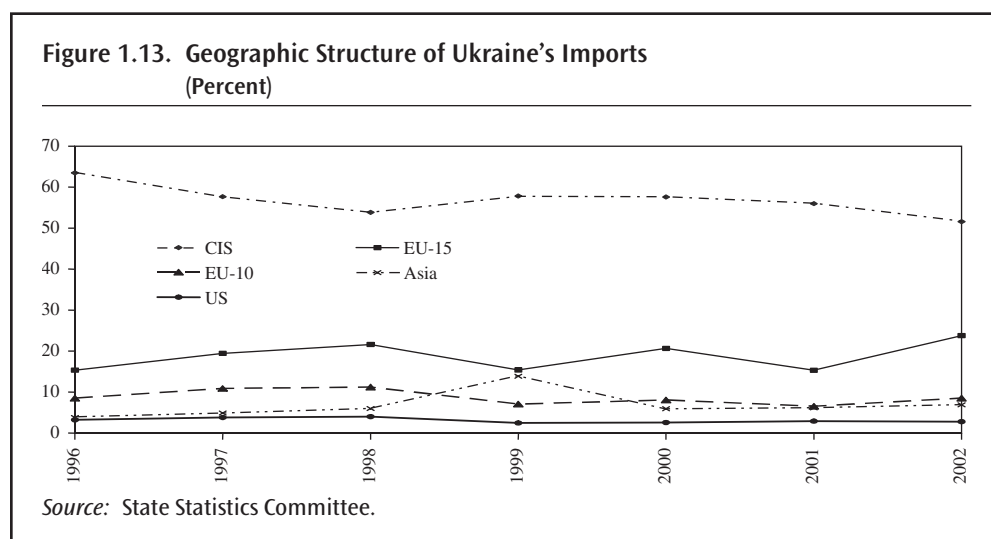
- *Temporary external factors*, such as unfavorable weather conditions in Europe in 2002, led to an increase in its demand for grain and consequently triggered the rise of the European countries' share in Ukraine's exports. Likewise, the poor harvest in 2003 in Ukraine severely limited the supply of agricultural exports.

Though Ukraine has undergone significant reorientation of its exports away from the CIS and toward the EU, the extent of trade with Europe is still lagging if compared to the new EU members. Figure 1.12 shows the comparative dynamics of exports to the CIS and the EU for both Ukraine and its western neighbor, Poland. While Ukraine's exports to the EU-15 have performed quite strongly since 1992, this share in total exports is still three times lower than in Poland.



The largest sources of Ukraine's imports are the CIS (mainly Russia and Turkmenistan) and Europe. The shares in imports from these regions equaled 50 percent and 35 percent respectively in 2003 (Figure 1.13). Ukraine imports from the CIS primarily oil and gas, which made up for 81 percent of imports from the CIS in 2002. From the ROW Ukraine gets mostly high-processed technological goods, which include machinery and equipment (where the share of ROW imports was about 85 percent in 2002), vehicles (70 percent), food (88 percent), chemicals (82 percent), and textiles¹⁵ (85 percent).

15. Textiles are imported primarily under the Outward Processing Trade (OPT) schemes.



The geographical structure of imports has undergone similar changes to exports during 1996–2003. The share of the CIS has declined (by 13.5 percentage points to 50 percent), while the share of the EU-15 has increased (by 9.8 percentage points to 25.2 percent), the share of Asia increased by 4.8 percentage points to 8.6 percent.¹⁶ However, the decrease of the CIS share in imports was smaller than that of exports mainly due to the fact that Ukraine did not manage to diversify its energy imports (which constituted about 40 percent of total merchandise imports in 2002). The CIS continues to dominate imports of mineral products and its share in this group remains close to 100 percent.

The change in the geographical structure of imports over 1996–2002 follows the changes in the commodity import structure. Shares of higher-quality and hi-tech goods (machinery and equipment, and vehicles) have been growing in response to the recent growth in both household incomes and investment. The CIS's share in import of these groups decreased by about 16 percentage points (to 14 percent) and 24 percentage points (to 30 percent) respectively.

Export Concentration and Specialization

Export Concentration

High export concentration is characteristic for many developing countries, and this is a significant factor of their vulnerability to external shocks. In order to measure Ukraine's merchandise exports concentration, we used three indices:

16. Other regions' shares changed insignificantly: the share of EU-10 increased by 1.5 percentage points to 8.1 percent. The share of the US decreased by 0.4 percentage points to 2.8 percent, while the share of Africa remained practically unchanged and low (1 percent). A factor of the US share decrease was a ban on import of chicken, imposed by Ukraine during 2002 due to a high content of forbidden antibiotics.

- 1) The Hirschmann index, values of which range from zero to unity, with higher numbers corresponding to greater concentration.
- 2) The exports diversification index (DX), which is defined as $DX = (\sum([h_i - h_{iw}]) / 2)$, where h_i is the share of commodity i in total Ukraine exports and h_{iw} is the share of the commodity in world exports (the DX values are normalized to be between 0 and 1).
- 3) The number of commodity positions in the 3-digit SITC breakdown for which export exceeds US\$10 million (by definition, it should be negatively correlated with the Hirschmann and DX indices).

As Table 1.5 and Figure 1.14 illustrate, Ukraine's exports concentration followed an "inverse-V" curve over 1996–2002. The Hirschmann index value increased from 0.10 in 1996 to 0.14 in 1997, remained stable through 2000, and then decreased to 0.11 over 2001–02. The DX index value was more stable, but demonstrated a similar dynamics to the Hirschmann index in 1996–2001. It increased from 0.248 in 1996 to 0.254 in 1997, remained nearly stable through 2000, and then decreased to 0.248 in 2001. The only difference in the indexes dynamics was in 2002, when the DX index value increased (to 0.257) contrary to the Hirschmann index value. The number of commodity positions in exports follows the dynamics of the Hirschmann index. In 1996–2000 exports were becoming more concentrated, then in 2001–02 concentration began to decrease, but it was still higher at the end of the period than in 1996 (152 commodity positions in 2002 versus 164 in 1996).

The likely interpretation of this dynamics is the following. During the period of economic decline exports were becoming more concentrated, as some items became non-competitive and dropped from exporting activity. In 2000, the first year of economic growth, higher concentration persisted as the growth was led by exports of key traditional items, such as iron and steel and chemicals. Since 2001, economic growth has been more inclusive which has been reflected in somewhat higher exports diversity.

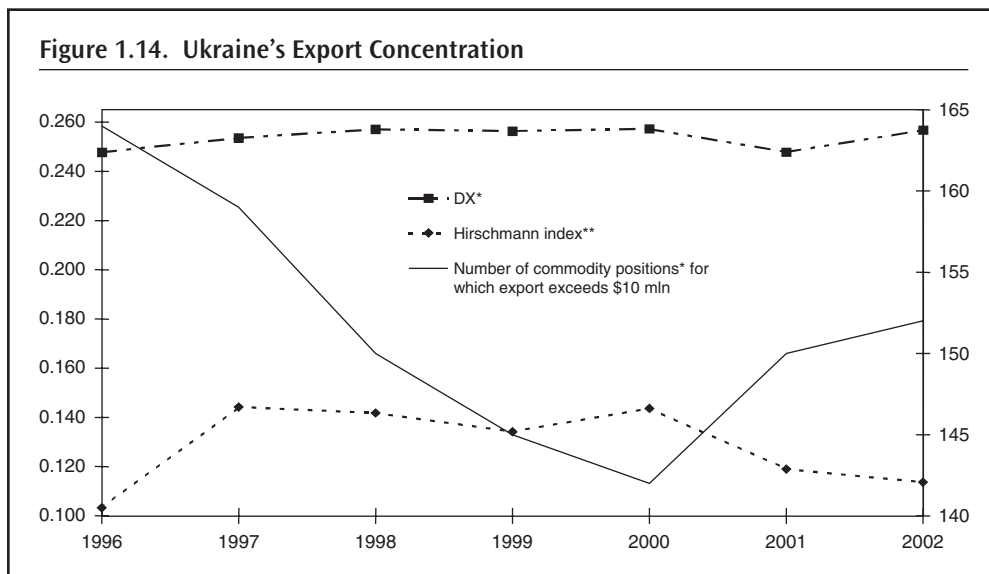
Compared to Poland, Ukraine has more concentrated merchandise exports (Table 1.5). This statement is confirmed by all three indicators we employed. In Poland, compared to Ukraine, the number of commodity positions in exports has been at least 10 percent higher,

	1996	1997	1998	1999	2000	2001	2002
Ukraine							
Number of commodity positions* for which export exceeds \$10 million	164	159	150	145	142	150	152
Hirschmann Index**	0.103	0.144	0.142	0.134	0.144	0.119	0.114
Diversification Index DX*	0.248	0.254	0.257	0.256	0.257	0.248	0.257
Poland							
Number of commodity positions* for which export exceeds \$10 million	173	176	177	179	175	177	175
Hirschmann Index**	0.045	0.044	0.046	0.048	0.047	0.047	0.048
Diversification Index DX*	0.197	0.192	0.185	0.183	0.187	0.185	0.186

*According to 3-digit SITC classification, out of 239 positions.

**For 65 items exported, according to 2-digit SITC classification.

Source: WITS; COMTRADE; authors' calculations.



the Hirschmann index has been twice lower, and the export diversification index has been lower by a quarter. It is worth noting that the gap has not been closing since the mid-1990s.

Export Specialization

We used the Revealed Comparative Advantage index¹⁷ (RCA) to determine what goods Ukraine specializes in trading, whether Ukraine exhibits similar or different comparative advantages on the world market and two main regional markets—CIS and EU—and how the specialization patterns changed over time in 1996–2002. Following the conventional notation, we will further call the RCA indices for specific markets export specialization indices (ESIs). We analyzed the ESIs on different levels of aggregation.

The SITC 1-digit level ESIs for Ukraine presented in Table 1.6 are concentrated in the following groups (in order of importance): animal and vegetable oils, crude materials, manufactured goods, and food and live animals. Over 1996–2002, Ukraine's global ESIs decreased for chemicals, beverages and tobacco, and food and live animals; while for manufactured goods and animal and vegetable oils the ESIs increased. The analysis of the 2-digit SITC breakdown reveals that in the manufactured goods group Ukraine highly specializes in iron and steel (67 2-digit SITC code), non-ferrous metals (68) and manufactures of metal (69). Not surprisingly, these goods made the biggest contribution to Ukraine's export growth over this period. Though in 2002 the ESI in crude materials was almost the same as in 1996, in the middle of the period and the export low point of 1999, ESI in this commodity group increased by about 50 percent. Ukraine appears to have no revealed comparative advantages in trade of machines, transport equipment and miscellaneous manufactured articles.

17. The index for country i good j is $RCA_{ij} = (X_{ij}/X_{it}) / (X_{wj}/X_{wt})$, where w =world and t =total for all goods. RCA does not determine the true comparative advantages, but simply compares the composition of exports of one country to a certain market with the composition of total exports that are absorbed by the market

On the basis of 1-digit exports data	SITC code	1996			1999			2002		
		World	CIS	EU	World	CIS	EU	World	CIS	EU
Food and live animals	0	2.05	4.06	2.03	1.49	3.47	1.45	1.77	2.97	1.68
Beverages and tobacco	1	1.15	2.03	0.79	0.64	1.52	0.40	0.60	1.19	0.38
Crude materials, inedibles, except fuels	2	2.42	1.50	3.75	3.79	1.74	5.90	2.59	1.54	3.80
Fuels, lubricants, etc.	3	0.59	0.12	1.44	0.84	0.17	2.31	1.12	0.20	2.69
Animal and vegetable oils, fats, wax	4	2.65	6.19	3.16	2.19	6.72	2.81	4.48	5.93	5.67
Chemicals, related products	5	1.37	1.82	1.08	0.88	1.37	0.69	0.70	1.40	0.51
Manufactured goods	6	2.00	1.65	2.22	2.54	1.90	2.78	2.56	2.17	2.77
Machines, transport equipment	7	0.36	1.78	0.34	0.27	1.37	0.26	0.34	1.69	0.33
Miscellaneous manufactured articles	8	0.30	2.06	0.29	0.38	1.54	0.38	0.41	1.91	0.42
Goods not classified by kind	9	0.48	0.09	0.51	1.36	0.28	1.19	0.41	0.15	0.46

Source: WITS; COMTRADE.

Ukraine's ESIs differ significantly for its two largest export markets—the CIS and the EU. The difference is the most evident for beverages and tobacco, chemicals, and machines and transport equipment—Ukraine does not have revealed comparative advantages in trade of these commodity groups with the EU, but exhibits strong ESIs in trade with the CIS. On the contrary, the revealed comparative advantage of Ukraine in trade of crude materials is noticeably stronger with the EU than with the CIS.

Over 1996–2002, Ukraine had been losing its revealed comparative advantages with the CIS in the following commodity groups: food and live animals, beverages and tobacco, chemicals, and animal and vegetable oil. The ESI increased noticeably only for manufactured goods (again, iron and steel [67], non-ferrous metals [68] and manufactures of metal [69]). The same trends had been taking place in comparison with the EU, apart from animal and vegetable oil, where the ESI increased over 1996–2002 by 3.6 percent.

A more detailed, 2-digit SITC trade composition (see Table 1.7) reveals that there are only 14 product groups (out of 94) in which Ukraine has a strong revealed comparative advantage in trade with the world (the ESIs exceed 2). These are (in order of decreasing ESIs) fertilizers, metalliferous ores and metal scrap (mainly iron ore and concentrates [281 3-digit SITC code¹⁸] and waste and scrap metal of iron and steel [282]), iron and steel (mainly pig iron [671], ingots and other primary forms of iron [672], and iron and steel bars, rods, angles

18. SITC 2-digit level ESIs are presented in the Statistical Annex, Tables A34-A36, and SITC 3-digit level—in Tables A37-A39.

Table 1.7. Export Specialization by Export Market
(Number of product groups with a strong revealed comparative advantage [ESI>2 at 2-digit SITC level])

	1996	1999	2002
World	14	14	14
CIS	30	22	24
EU	14	13	15

Source: Staff estimates.

groups (24) that indicate strong export specialization: seven of them are the same commodity groups as in trade with the world and EU (metalliferous ores and metal scrap; iron and steel; cereals and cereal preparation; fixed vegetable oils and fats; crude fertilizers and crude materials; hides, skins and fur skins; sugar; and manufactures of metals), plus food products (such as meat and meat preparations, animal feed, coffee, tea, cocoa (mainly chocolate [073]), machinery and equipment (metalworking machinery, general industrial machinery), and light industry products (articles of apparel and clothing accessories, footwear).

Over 1996–2002, Ukraine’s export specialization in trade with the world increased the most in cereals and cereal preparations (mainly rice [042] and barley [043]), fixed vegetable oils and fats, and cork and wood (mainly fuel wood [245]), and decreased the most in sugar, oil seeds, and electric power. In trade with the EU, export specialization increased the most in coal, coke and briquettes, explosives and pyrotechnic products, and fixed vegetable oils and fats. It decreased the most in oil seeds, sugar and fertilizers. In trade with the CIS, export specialization increased the most in coffee, tea, cocoa, spices (mainly chocolate [073]), manufactures of metal (mainly tools [695]), and explosives and pyrotechnic products, and it decreased the most in sugar, live animals and animal-vegetable oil-fats.

To confirm the statement regarding different export specialization patterns on CIS and EU markets on 3-digit SITC level, we divided ESIs in trade with each trading partner into three groups:

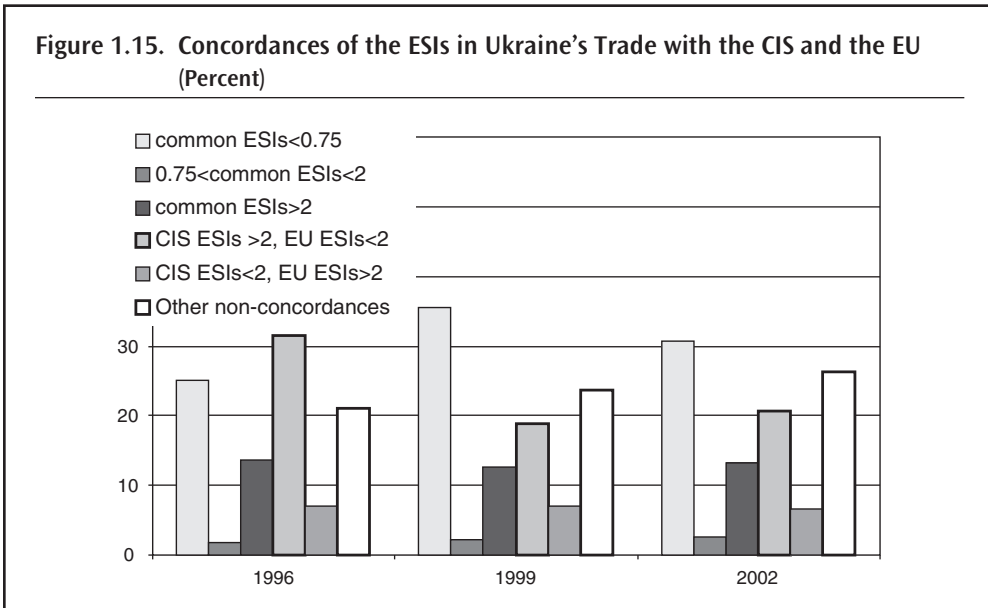
- ESIs>2 (strong export specialization).
- ESIs<0.75 (no export specialization).
- 0.75<ESIs<2 (uncertain area of no revealed strong advantage or disadvantage).

Then we estimated the shares of ESIs, where Ukraine has: (i) strong export specialization in both regions; (ii) no export specialization in both regions; (iii) not clear export specialization in trade with both partners; and (iv) percentage share of ESIs that belong to different groups in exports to the CIS and EU.

As Figure 1.15 shows, the patterns of Ukraine’s exports specialization to the CIS and EU are rather different, and conversion has been slow. In 2002, about a half of all export com-

[673]), cereals and cereal preparation (mainly rice [042] and barley [034]), fixed vegetable oils and fats, crude fertilizers and crude materials, hides, skins and fur skins (mainly row fur skins [212]), inorganic chemicals, explosives and pyrotechnic products, sugar, cork and wood, coal, coke and briquettes, and manufactures of metals (mainly tools for use in hand or in machine [695]). The same groups, apart from manufactures of metals, are of strong export specialization in trade with the EU.

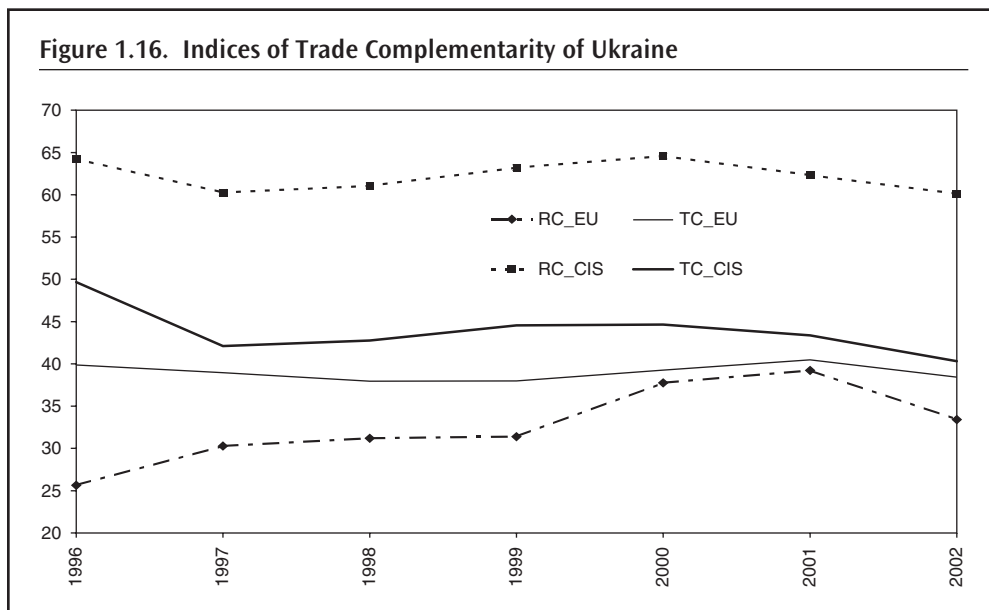
For the CIS the specialization pattern is rather different. There are more commodity



modities belonged to different specialization groups. The only group, which increased its share, represents commodities that do not show specialization for either of the markets. The biggest overall change in trade specialization occurred due to the evolution in Ukraine's exports to the CIS. The share of commodities with the $ESI > 2$ in the CIS trade declined from 45 percent in 1996 to 34 percent in 2002, suggesting an erosion of Ukraine's comparative advantage in the CIS. The degree of Ukraine's export specialization in the EU markets remained stable at a level of 20 percent of commodity groups, which is much lower than the one in the CIS. The share of the export commodities with strong specialization in both markets remained stable during 1996–2002 at the level of about 13 percent.

Complementarity of Trade

In order to identify a trade partner with an import structure that is closer to Ukraine's export structure, we estimated two indices of trade complementarity. The first index is calculated as a coefficient of correlation (in percent) between ranks of commodities' shares in Ukrainian exports and of commodities' shares in imports of a respective partner in the 3-digit SITC breakdown (In Figure 1.16, we denote this index as RC_{EU} or RC_{CIS} for complementarity of trade with the EU and CIS respectively). The second index is calculated according to the formula $TC_j = 100 - \sum ([m_{ij} - x_i] / 2)$, where $j = EU$ or CIS , x_i is the share of good i in global exports of Ukraine in the 3-digit SITC breakdown, and m_{ij} is the share of good i in all imports of j in the 3-digit SITC breakdown. The index is zero when no goods are exported by Ukraine or imported by the trading partner and 100 when the export and import shares exactly match (In Figure 1.16 we denote this index as TC_{EU} or TC_{CIS} for complementarity of trade with the EU and CIS respectively).



The calculated indices differ in two respects. First, the RC index shows that trade complementarity with the CIS was nearly double that with the EU in 2002; while the TC index shows that trade complementarities of Ukraine with the CIS and EU almost did not differ that year. Second, for the EU both indices show different dynamics. RC_EU increased over 1996–2002 by 7.8 p.p., while TC_EU decreased over the period by 1.5 percentage points mainly due to differences in the years of 1996 and 2002.

However, both indices illustrate the following:

- *Trade complementarity with the CIS decreased during 1996–2002.* The decline amounted to 4 percentage points according to RC_CIS and to 9 percentage points according to TC_CIS. This dynamics is by large explained by changes in CIS imports and Ukraine’s export structure—there has been a growing demand for high-quality machinery and equipment and consumer demand goods in the CIS, while Ukraine increased specialization (measured as export shares of goods) in metals and mineral products (these products are exported primarily to the ROW) and decreased in food products. Thus, Ukraine’s exports to the CIS were less complementary over time to the structure of CIS imports.
- *Trade complementarity with the EU is lower compared to the CIS, but it increased somewhat over 1997–2001* (before some decline in 2002). TC_EU grew by 2 p.p., while RC_EU increased by 9 percentage points Overall the remaining considerable differences in trade complementarity help explain why Ukraine overtrades with the CIS and undertrades with the EU.

Ukrainian exports complementarity with imports of two major partners is quite different from those of Poland. For Poland, both TC and RC are higher for exports to

the EU, compared to exports to the CIS. The difference is striking in the comparisons of RC indices. Poland's RC with the EU exceeds 60, while for Ukraine it is twice lower. And vice versa, Poland's RC with the CIS is 20, while for Ukraine it is three times higher.

Intra-Industry Trade

Intra-industry trade is believed to create additional benefits for trading countries compared to inter-industry trade in the form of increasing returns to scale leading to faster economic growth and income conversion for all participants (Krugman and Helpman 1985). The degree of intra-industry manufacturing trade can be measured by the Grubel-Lloyd (G-L) index.¹⁹ We calculated four G-L indices for Ukraine (for total trade, trade with the CIS, ROW and EU) using 3-digit and 2-digit SITC data in order to assess the degree of integration of the country with the different groups of its trading partners (see Table 1.8).

The results suggest the following conclusions. First, the share of intra-industry trade in Ukraine's total trade has been in the range of 35–41 percent and it declined over 1996–2002, excluding the period of gradual pick up in 1999–2001. Overall, the G-L index value for total trade declined during 1996–2002 by 2.2 percentage points

Table 1.8. Grubel-Lloyd Index: Ukraine and Poland
(Based on 3-digit SITC data)

	1996	1997	1998	1999	2000	2001	2002	Change, 2002–1996
Ukraine								
Total trade	40.7	36.7	34.5	35.6	37.9	40.1	38.4	–2.2
CIS	47.7	49.5	52.9	54.5	52.4	55.7	53.9	6.1
ROW	36.9	33.6	30.5	31.8	34.9	36.7	35.6	–1.4
o/w: EU	18.7	18.1	20.0	19.9	21.8	23.6	22.5	3.9
Poland								
Total trade	46.4	48.3	48.4	50.5	55.5	55.8	57.5	11.1
CIS	20.9	19.5	17.7	21.8	19.7	17.0	16.7	–4.2
ROW	47.2	49.0	49.4	50.8	56.4	56.4	58.2	11.1
o/w: EU	41.7	42.5	44.1	47.7	52.5	52.7	54.6	12.9

Note: The index is calculated for merchandise trade only (groups 5–8 excluding 68), using the SITC revision 2.

Source: WITS; COMTRADE; authors' calculations.

19. The G-L index, $I = [(\sum_i (X_i + M_i) - \sum_i |X_i - M_i|) / \sum_i (X_i + M_i)] * 100$, where X_i and M_i are, respectively, exports and imports in sector i (Grubel and Lloyd, 1975). The higher the index the larger the portion of intra-industry trade. The index ranges from 0, meaning complete lack of intra-industry trade, to 100, indicating a fully integrated manufacturing trade.

Second, the share of intra-industry trade with the CIS has been on average 1.5 times higher than that of trade with the ROW: 54 percent versus 36 percent as of 2002. This fact indicates the continuing importance of the former USSR links between CIS economies and their recent recovery, as the G-L value increased by 6.1 percentage points over 1996–2002. The degree of Ukraine's intra-industry trade with the CIS is quite high on cross-country comparisons and it is very close to the level of OECD countries.²⁰

Third, the value of the G-L index for Ukraine's trade with the EU is even lower than that for trade with the whole ROW, though it has been slowly increasing (by 3.9 percentage points over 1996–2002). The low degree of intra-industry trade with the EU is linked to the fact that (i) Ukraine's export structure to the EU is dominated by low-processed goods, and (ii) the level of FDI from the EU is low by international standards. The decrease in the G-L value for total trade has been caused by the declining trend of the G-L for non-EU ROW countries. Over the period, Ukraine's foreign trade flows were shifted away from the CIS (with a high share of intra-industry trade) and toward the ROW regions with a low share of intra-industry exchange (primarily Asian countries).

Intra-industry trade has been highly concentrated in several sectors, mostly in machinery and steel. The following commodity groups made the largest contribution to the G-L index for total trade (calculated using 2-digit SITC data): general industrial machinery and equipment (SITC 74), electrical machinery, apparatus and appliances (77), power generating machinery and equipment (71), iron and steel (67), paper, paperboard (64), manufactures of metal (69) and machinery specialized for particular industries (72). Together these 7 (out of 65) commodity groups accounted for 53.5 percent of the G-L in 2002. Over the period, the intra-industry trade grew noticeably in general industrial machinery and equipment, power generating machinery and equipment, paper and paperboard, while it declined in machinery specialized for particular industries.

In trade with the CIS, the level of integration has substantially increased in iron and steel (that strongly rebounded since the low point of 1999); power generating machinery and equipment, paper and paperboard. At the same time, Ukraine has lessened its involvement in intra-industry flows with the CIS in general industrial machinery and equipment. For the latter commodity, there definitely has been a shift to a higher integration with the ROW, especially since 1998. In trade with the EU, the level of integration has recently increased in manufactures of metal (by a factor of 3 compared to 1996), and in electrical machinery, apparatus and appliances (by a factor of 2 compared to 1996). Meanwhile, the share of intra-industry trade with the EU in chemical materials and products, that used to be important through 2000, has dropped recently. Contrary to that with the CIS, intra-industry trade in iron and steel with the EU has been declining since 2000.

Compared to Ukraine, Poland has been engaged in intra-industry trade on a much higher scale. G-L value of 57 for total trade is very close to the level of OECD countries. Poland's degree of intra-industry trade with the EU is almost three times higher, compared to Ukraine, while the opposite is true in trade with the CIS. The intra-industry trade is much less concentrated in Poland. Trade in parts and accessories makes an important and growing contribution to Poland's G-L, while it is still negligible in Ukraine's trade.

20. According to Greenaway and Hine (1991), the average Gruber-Lloyd index for OECD countries in 1985 was 64.5.

Foreign Trade Data Quality

During the period of economic transformation from the planned to the market economy, the statistical system is also undergoing a fundamental change. Box 1.3 discusses the Ukrainian sources of foreign trade data. To shed some light on the quality of Ukrainian trade statistics, Table 1.9 shows mirror statistics for Ukrainian exports and imports with its main trading partners, including the CIS, EU, and 10 new EU-15 members. The upper part of Table 1.9 presents the ratio of merchandise exports, as reported by Ukraine, divided by merchandise imports, as reported by the corresponding importing countries. As exports are recorded in FOB prices, while imports are recorded in CIF prices, the “undistorted” ratio should be a little less than 1. The higher the index, the more inflated are Ukraine’s exports data, and/or Ukraine’s trading partners’ data underestimate their imports from Ukraine.

It is clear from Table 1.9 that Ukrainian export statistics are distorted. The index has been volatile though exports are often over-reported. For instance, in absolute terms, Ukraine’s exports to selected countries, covering 72 percent of total exports, exceeded imports from Ukraine by US\$790 million in 2002. At the other extreme, in 1996 exports

Box 1.3. Methodology of the Ukrainian Foreign Trade Statistics

The State Statistics Committee (SSC) and the National Bank of Ukraine (NBU) provide the foreign trade statistics (foreign trade balance and balance of payments correspondingly) based on different methodologies. The SSC uses methodological recommendations on merchandise foreign trade of the UN (1998) as a guide, while the NBU prepares the balance of payment statistics according to the Balance of Payment Manual by the IMF (5th edition).

The main methodological differences are the following:

- The SSC presents data on imports in CIF prices, but on exports in FOB prices. The NBU shows both flows in FOB prices (the proportion of insurance and freight in imports is estimated on the basis of results of the survey conducted by the SSC once in two years).
- The NBU foreign trade statistics, contrary to the SSC one, includes data on informal trade (imports and exports of goods by individuals, including trade of cars, and by mail), and on those goods that were imported through tolling (Outward-Processing Trade) schemes and left to be sold in Ukraine. The NBU makes expert estimates of informal trade volumes. In addition, the NBU makes expert estimates of the volume of trade in tourism services, which are not carried out by the SSC. Due to these methodological differences, the SSC data tend to underestimate the volume of trade.

Table A1 of the Statistical Annex shows Ukraine’s foreign trade data for the period 1996–2003 according to 4 sources: SSC, NBU, IMF’s Directions of Trade Statistics (DOTS), and World Bank’s World Integrated Trade Solution (WITS). It reveals that the major difference among all sources is the difference between SSC and NBU data. For merchandise imports, the discrepancy could arise due to different prices used (CIF versus FOB). However, this methodological difference implies the SSC’ flows should be higher than NBU’s flows, while actual data show just the opposite. It turns out that adjustments made by the NBU for smuggling are higher than the value of transportation and insurance services. The informal trade adjustments also explain the difference in export values. As Figure 1.17 shows, the discrepancy lies in the range of 1.3–2.9 percent of GDP for export flows, and 2–5 percent of GDP for import flows. The magnitude and volatility of the discrepancy is large enough to make the implied growth rates significantly different. On the positive side, the discrepancy seems to be declining as a share of GDP. As is evident from Table A1, DOTS and WITS use the SSC data. In this report, if not stated otherwise, we also use SSC data, but we admit that they are somewhat downward biased.

	1996	1997	1998	1999	2000	2001	2002
Ratio of exports reported by Ukraine to imports from Ukraine reported by its partners							
CIS	0.88	0.94	0.87	0.93	0.95	0.98	1.01
Russia	0.88	0.93	0.88	0.94	0.96	0.96	0.99
EU-15	0.93	1.01	1.05	1.18	1.02	1.03	0.93
New EU Members (EU-10)	1.05	1.03	1.02	1.07	1.22	1.33	1.29
Cyprus	1.42	1.41	3.79	1.39	3.84	1.86	3.40
Latvia	1.31	1.42	1.30	1.49	3.88	5.07	4.26
Asia*	1.39	1.59	1.34	1.19	0.97	0.82	1.01
China	1.51	3.29	3.98	2.14	1.29	0.79	0.94
Hong Kong	1.31	0.64	0.10	0.46	0.06	4.48	2.04
Total for the selected countries**	0.94	1.02	0.96	1.03	0.99	0.99	1.03
<i>Share of the countries in Ukraine's exports</i>	<i>85.6</i>	<i>77.1</i>	<i>75.8</i>	<i>69.9</i>	<i>74.8</i>	<i>69.6</i>	<i>71.7</i>
Ratio of imports reported by Ukraine to exports to Ukraine reported by its partners							
CIS	1.17	1.22	1.06	1.19	1.29	0.88	0.93
Russia	1.16	1.08	1.27	1.16	1.16	0.84	0.99
EU-15	0.88	0.92	0.86	0.95	0.95	0.83	0.82
New EU members	0.70	0.64	0.67	0.68	0.68	0.65	0.63
Cyprus	4.59	4.34	5.71	85.71	56.82	2.17	17.81
Latvia	1.04	1.27	0.88	1.12	0.98	1.08	0.84
Asia*	1.22	0.95	0.36	1.38	0.97	0.71	0.51
China	1.53	1.24	1.36	1.36	0.97	0.79	0.49
Hong Kong	8.59	2.71	1.54	7.65	4.99	6.48	3.18
Total for the selected countries**	1.03	1.05	1.00	1.05	1.09	0.84	0.85
<i>Share of the countries in Ukraine's imports</i>	<i>91.6</i>	<i>92.9</i>	<i>91.9</i>	<i>93.1</i>	<i>90.5</i>	<i>88.9</i>	<i>90.0</i>

*"Asia" includes the following Asian countries: China, Hong Kong, Singapore, Thailand, Taiwan, Viet Nam

**Includes also Bulgaria, Romania, and USA.

Source: WITS; COMTRADE.

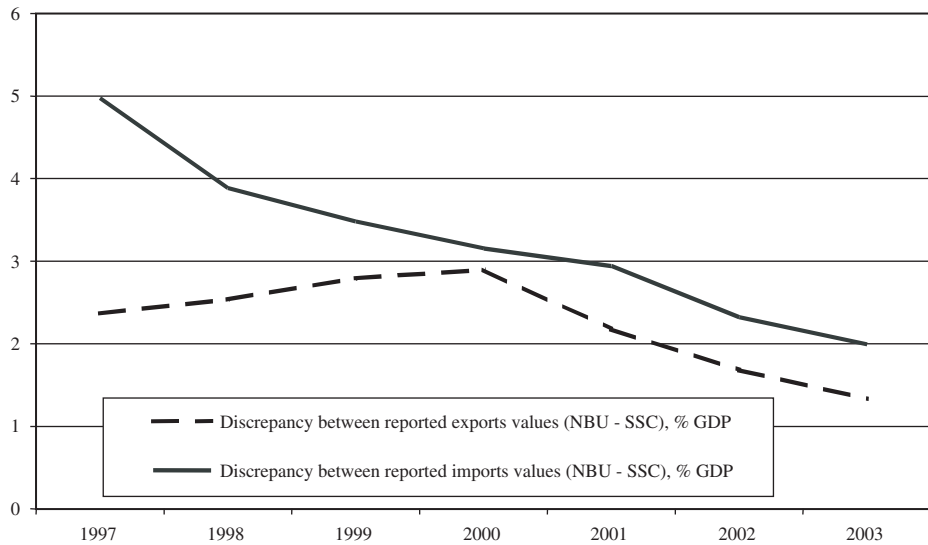
were under-reported by US\$700 million.²¹ The under-reporting in the mid-1990s might be related to the capital flight during the period of economic decline.²²

A primary explanation for inflated export values in recent years relates to the VAT refund issue—Ukrainian exporters inflate their export bills (or provide false bills) to claim budget compensation. Figure 1.18 shows a major expansion in the relative amount of VAT refund claims that occurred in 2001. Overall, while the total value of merchandise exports doubled between 1999 and 2003, the value of VAT refund claims

21. Taking into account the definition of the index, cited over-reporting in 2002 shows the lower bound of the discrepancy, while cited under-reporting in 1996 shows the upper bound.

22. Before 1998, barter trade was another source of potential distortion in the trade data. However, the role of barter declined considerably after the 1998 crisis. The share of barter in total trade was less than 3.5 percent in 1999, while in 1997 it was about 10 percent (Burakovsky 2001).

**Figure 1.17. Discrepancy between Reported Trade Flows from NBU and SSC
(Percent of GDP)**

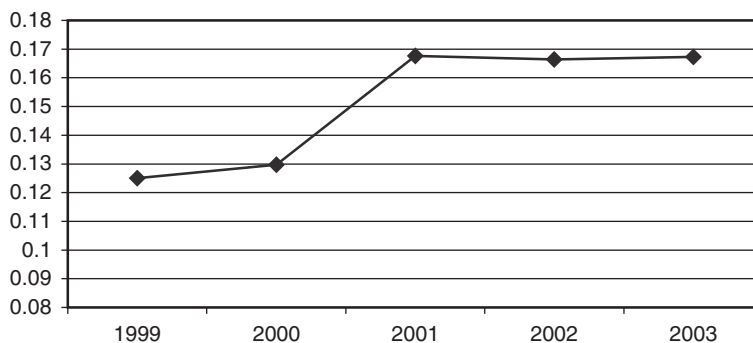


Source: State Statistics Committee; National Bank of Ukraine.

increased three-folds. The ratio of total annual VAT refund claims and annual exports was close to 17 percent in 2001–03, which is quite high given the prevailing VAT rate of 20 percent.

Distortions for total exports are lower than for individual countries or regions, suggesting that a trade deflection might take place. The most consistent statistics appear to be

**Figure 1.18. Annual VAT Refund Claims as a Share of Merchandise Exports,
1999–2003**



Source: Own estimates based on NBU and IMF data.

in trade with other CIS countries, where the index exceeded unity by a tiny margin. Exports to the EU-15 were significantly over-reported only in 1999. On the contrary, exports to the new EU members seem to be significantly over-reported after 1999. Trade data for Cyprus and Latvia are illustrative: both destinations appear to be a favorite for Ukrainian exporters that manipulate their trade reports. Since 2000, exports to Latvia have been overestimated by a factor of four to five. The most likely explanation for this phenomenon is a trade deflection, whereby Ukrainian exporters try to circumvent various barriers introduced by the EU. Ukrainian exports to Asia were over-reported through 1999, but the phenomenon has ceased recently for the region as a whole. Still, there are country-specific variations. For instance, while trade with China used to be a source of major distortions through 2000, especially in 1997–98, the bias has shifted to Hong Kong in 2001–02 (after China regained sovereignty over the island).

The lower part of Table 1.9 presents the ratio of imports as reported by Ukraine, divided by exports, as reported by the corresponding exporting countries. Due to the differences between FOB and CIF prices, the “undistorted” ratio should somewhat exceed unity, ranging between 1.05 and 1.2. Ukrainian total import flows seem to be underestimated in 2001–02. In absolute terms, Ukraine’s imports from selected countries, covering 90 percent of total imports, fell short of exports to Ukraine by US\$2.3 billion in each of these years.²³ Imports from the CIS were underreported in 2001, which could be explained by Russia’s switch to the destination principle in VAT.²⁴ Though in 1999 imports from Asia were over-reported by at least a quarter, by 2002 they were under-reported by a factor of two. The dynamics of import flows from China is clearly behind this regional trend. Over the whole period, imports from the new EU members were under-reported on average by one-third. The most likely explanation for import under-reporting is optimization of import taxes and levies.

A joint analysis of the export and import mirror statistics strongly suggests that there has been an under-reported trade-related net transfer of capital to Ukraine since 2001. The data suggest that exports were lower and imports were higher than officially reported in this period, which assumes an inflow of unreported financing available for the Ukrainian commercial sector. In 2002, such a transfer could amount to US\$3 billion (or 7 percent of GDP). Geographically, the main part of this transfer derived from trade with the new EU members, though other regions contributed too. This finding leads to a number of conclusions, such as:

- Actual net capital flight from Ukraine has been smaller recently than is officially reported in the balance of payments.
- Economic growth that started in 2000 and intensified in 2001 has in fact attracted capital inflows from abroad to Ukraine that exceed the unimpressive official FDI data. It helps to explain recent high rates of domestic investment growth. Given the

23. Taking into account the definition of the index, cited over-reporting in 2001–02 shows the lower bound of the discrepancy.

24. Until 2001, Russia levied VAT on the “origin” basis, so that Russian exporters had potential incentives to under-report their shipments to economize on tax payments, while Ukrainian importers did not have these incentives. When Russia switched to the “destination” principle for most trade in July 2001, Ukrainian importers started to pay VAT on imports from Russia, which created incentives to under-report.

geographical structure of existing trade data discrepancies, it appears that a substantial portion of the unaccounted capital inflow may relate to a partial return of the flight capital that took place in the 1990s.

- Trade statistics distortions have fiscal implications on both exports and imports. To illustrate it, if we take Ukraine's weighted average import tariff of 5 percent in 2002 and multiply it by the value of underreported imports of US\$2.3 billion, the foregone fiscal revenues are estimated at US\$150 millions (1.3 percent of total annual fiscal revenues).²⁵
- General problems exist with Ukraine's merchandise foreign trade statistics that could be lessened by closer international cooperation. There has been a great deal of cooperation among the CIS statistical agencies, and it is reflected in a better consistency of trade data for these countries. At the same time, a greater level of cooperation with Eurostat might further improve the accuracy of trade data, facilitate improvements in custom administrations, and thus support strengthening of the government's revenue performance.

Conclusions

The discussion above leads to the following conclusions:

- After independence in 1991, Ukraine's foreign trade has dropped dramatically, but it has been gradually recovering since 1993. In 1993–2003, exports and imports increased by about 125 percent. Strong export growth led to major improvements in both the trade and current balance. Improvements in trade performance had a beneficial impact on overall economic growth in Ukraine through a number of indirect channels.
- There was a merchandise trade reorientation away from the CIS in two waves: the first started immediately after the breakup of the USSR in 1991, and the second in 1996. Overall, in 1990–2003, the share of the CIS declined by 55 percentage points in exports and by 28 percentage points in imports. Though Ukraine has undergone significant reorientation of its exports away from CIS and toward the EU especially, the extent of trade with Europe is still lagging behind the new EU members.
- Ukrainian foreign trade flows are sensitive to market signals. However, the trade adjustment to the changes in the exchange rates has worked so far primarily through import. Low exports elasticity on foreign incomes implies that within the present structure of exports, there are limitations for further high and sustainable export growth rates. The fact that the export sector has played a significant role in the recent growth episode has more to do with growth in export unit value and real exchange rate depreciation, and less with expansion in physical volumes of exports.

25. This is a lower bound of the foregone fiscal revenues because: (i) we use the conservative estimates for underreporting; and (ii) there are more incentives to under-report imports value with higher than average rates of protection.

- Export growth has been highly concentrated. During 1996–2003, two sectors—iron and steel and mineral products—contributed three-quarters (72 percent) of total export growth. However, the importance of these commodity groups declined recently and export growth has become more inclusive. During 1999–2003, iron and steel and mineral products contributed only 45 percent of total export growth.
- Ukraine’s export structure is insufficiently diversified. During the period of economic decline exports were becoming less diversified, as some items became noncompetitive and ceased from being exported. Since 2001, economic growth has been more broad-based and has been reflected in somewhat higher exports diversity.
- Overall, the analysis revealed considerable weaknesses in current export growth patterns. High concentration of exports, as well as a significant contribution to recent growth from temporary and one time factors (such as export price growth and improved capacity utilization) suggest that sustaining high export growth rates in the medium term would be difficult without fundamental changes in its structure.
- Ukraine’s export specialization differs significantly for its two largest export destinations—the CIS and the EU. Ukraine has more revealed comparative advantages in trade with the CIS than with the EU or the world as a whole. Only 13 percent of commodity groups show strong export specialization on both regional markets.
- The share of intra-industry trade with the CIS has been on average 1.5 times higher than that in trade with the ROW: 54 percent versus 36 percent as of 2002. This fact indicates the continuing importance of the former USSR links between the economies of CIS countries. The degree of Ukraine’s intra-industry trade with the CIS is quite high on cross-country comparisons and it is very close to the level of OECD countries.
- Despite the recent progress in the area of foreign trade, Ukraine lags behind its CEE neighbors, which recently became new EU members, on a number of indicators of trade restructuring. Poland has much more diversified exports, substantially higher complementarity of its exports with non-CIS markets and a higher degree of intra-industry trade. The gap did not narrow much since the mid-1990s. These findings suggest a long road ahead for Ukraine in the process of integration to the world economy.
- Joint analysis of the export and import mirror statistics suggests that foreign trade has facilitated an unregistered trade-related net transfer of capital to Ukraine since 2001. It helps to explain recent high rates of domestic investments growth.
- Ukrainian export and import statistics are distorted. Trade statistic distortions have fiscal implications on both exports and imports. A greater level of cooperation between SSC and statistical agencies, particularly with Eurostat, might improve the accuracy of trade data and contribute to a better fiscal position for Ukraine.

Tariff and Trade Regime²⁶

This Chapter explores in detail various aspects of the trade regime in Ukraine, primarily tariff and non-tariff import barriers. We arrive at the conclusion that, despite a gradual buildup in non-tariff import restrictions in the past decade, Ukraine's current statutory trade regime is quite liberal. However, the real picture is much less favorable. The real barriers for trade remain considerable and they relate to the behind the border administrative regulations and enforcement mechanisms, which are not reflected in the standard measures of protection such as import tariffs. The Chapter further investigates other restrictions traders are facing, most of which are informal.

During the decade since independence, Ukraine has moved from a very restrictive to a fairly statutory liberal trade regime. In 1993, exports and imports in Ukraine were severely restricted by non-tariff measures, such as pervasive licensing, quotas, and state trading. In addition, there were wide-ranging price controls in the domestic market and foreign-exchange restrictions. Most of these measures have been lifted since then. Ukraine drastically liberalized its trade regime and made considerable progress on the path to joining the WTO.

The formation of the current trade regime in Ukraine can be divided in three stages (Burakovsky 2001). At the initial stage of the early 1990s, the foreign economic regime largely reflected the legacy of the planned economy and was characterized by extensive use of restrictive measures.

The second stage (1994–99) was initiated by the 1994 reform package that included a number of advanced steps in the areas of macroeconomic stabilization, liberalization and privatization. But the implementation of the package, including trade policy measures, was quite inconsistent, with considerable fluctuations between liberalization, especially with

26. This Chapter is partly based on the background paper prepared by Veronika Movchan (IER).

respect to exports, and interventionism, aimed primarily at additional import protection for selective sectors and companies.

During the ongoing third stage, the Government has initiated a major effort to liberalize foreign trade and expand opportunities for integration with world markets. This new stage of liberalization started in 1999, when President Kuchma began his second term and he appointed Mr. Yushchenko as Prime Minister. The new government program called for broad economic liberalization, identified Ukraine's integration with the EU as a strategic priority, and emphasized a need for accelerating WTO accession. In early 2000, the Government adopted a reduction in preferential import tariffs for about 200 commodity groups by 5–15 percent.

Import Tariff Structure

Ukraine applies MFN and full tariffs.²⁷ However, in 2001–02, over a half of Ukraine's merchandise imports came from countries with which Ukraine has free trade agreements (FTAs). These are all former Soviet republics, which include eleven CIS members and three Baltic states. However, FTAs with the Baltics expired on May 1, 2004, on their EU accession. Imports from free trade areas are duty-free except for specified exemptions from the free trade regime. Out of eleven effective FTAs, six include exemptions from the free trade regime—with Russia, Kazakhstan, Belarus, Uzbekistan, Moldova, and Georgia. The core exemptions from free trade with Russia are sugar, confectionary, candies, and bakery. However, there is also a list of conditional exemptions from free trade arrangements, based on the existence of export duty on these commodities imposed by the partner. These exemptions are conditional on the existence of export tariffs in the country of origin. If Russia applies export tariff on these products, Ukraine is supposed to apply the MFN tariffs and vice versa. As of 2004, Russia maintains export tariffs on oil, selected petroleum products, and organic chemicals. Ukraine collects export tax on livestock, oilseeds, sugar, alcohol, tobacco products, and animal skins. Furthermore, Russo-Ukrainian trade relations are plagued with liberal application by both sides of safeguards and anti-dumping measures (see also Chapter 6).

There are also just a few exemptions from the free trade regime with Kazakhstan, such as livestock and animal skins (for exports from Ukraine), and alcohol and tobacco products (for imports to Ukraine). Exemptions in trade with Belarus are the same on both sides and include livestock, skins, and sugar. The detailed exposition of the CIS trade bloc arrangements is given in Chapter 6.

Almost all other imports come from countries that are subject to MFN tariff rates (45 percent in 2002). The rest of the partners, who do not enjoy MFN treatment, are subject to full tariff rates that tend to double the MFN rate, with a few exceptions. Imports under full tariff rates constitute only a small portion (3 percent of total) of imports.

Table 2.1 presents import-weighted average tariffs. Agricultural specific and mixed tariffs were converted into their ad valorem equivalents. As seen from the table, the average

27. The Law on Common Import Tariff (1992) envisions a third type of tariff: preferential. It should be applied to goods from countries that are part of a customs union with Ukraine or have shared with Ukraine special customs zones. However, no such arrangements are in existence today.

tariff was quite low during the period from 1993–2003 staying in the range between 2.5 and 5.0 percent. Agricultural tariffs were higher than non-agricultural tariffs by an order of magnitude –31.4 versus 2.7 percent in 2002.²⁸

Non-agricultural tariffs stayed at or below 3 percent. Such low rates should be attributed to a large share of imports under the FTAs, especially from Russia. Import-weighted rates of the MFN regime are higher, although still quite benign. The import-weighted average MFN tariff rates for non-agricultural goods varied between the lowest 3.7 percent in 1995 to the highest 6.7 percent in 1999. In the mid-1990s, there was a trend toward reduction of import tariffs, which discontinued in 1997–99. The rates stabilized in the 2000s near the 6.0 percent level.

Agro-food tariffs have significantly increased during the last decade. While in 1993 the import-weighted average tariff on agricultural products was 10 percent, it more than tripled by 2002 reaching 32 percent. As seen from Table 2.1, high agro-food tariffs drive up tariff on all products in Ukraine, although agro-food imports constitute only 8 percent of total imports.

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
All goods											
All partners	4.2	2.7	2.5	3.1	4.6	5.0	4.9	4.4	4.7	5.0	n.a.
MFN partners	7.0	5.1	4.6	6.0	9.3	9.7	10.2	8.9	9.1	9.7	n.a.
Non-agricultural goods											
All partners	3.7	2.0	1.8	2.1	2.6	3.0	3.0	2.8	2.7	2.7	2.7
MFN partners	6.4	4.2	3.7	4.4	5.5	6.5	6.7	6.0	5.8	5.9	5.9
Agricultural goods											
All partners	10.2	10.4	10.3	14.9	28.1	27.9	26.7	22.9	27.6	31.4	n.a.
MFN partners	11.6	11.3	11.1	17.6	37.0	33.4	35.5	30.2	33.3	37.6	n.a.
Implicit tariff rates											
For all imports	n.a.	n.a.	n.a.	n.a.	n.a.	2.5	1.7	1.8	2.1	2.4	2.2
For MFN imports	n.a.	n.a.	n.a.	n.a.	n.a.	5.6	4.2	4.5	4.9	5.2	4.6

Notes:

1. The 2002 import weights for each commodity category were applied throughout the period.
 2. The import-weighted average tariff on agricultural goods is estimated on the basis of ad valorem tariffs and ad valorem equivalents of specific and mixed tariff rates. The ad valorem equivalents were estimated for each year on the basis of annual average import unit value at the 6-digit HS level. The formula used to calculate ad valorem equivalent for specific tariffs was the following: Tariff equivalent = (specific rate/unit value)*100 percent. The mixed rates were estimated likewise; with the only exception that the maximum value between ad valorem and specific parts of the mixed tariff was chosen. Thus, the formula was: Tariff equivalent = Max {(specific rate/unit value)*100 percent, ad valorem tariff}.
 3. Implicit tariff rates were estimated as the ratio of collected import duties of the value of imports.
- Source:* IER and World Bank estimates.

28. Excessive protection of agriculture remains rather common. See the next chapter, for instance, for a review of the EU's tariff structure.

Import-weighted non-agricultural MFN tariffs consolidated into 11 commodity groups are presented in Table 2.2 and detailed agricultural tariffs in Table 2.3. The most protected non-agricultural goods appeared to be leather, rubber, footwear, and travel goods, with a 12.3 percent rate in 2003, and with a rate increase of 1.3 percentage points since 1993. The second highest protected group was manufactured products n.e.s. (9.6 percent). Mineral products, precious stones, and precious metals followed with an 8.7 percent rate, and the next was transport equipment with an 8.5 percent rate. Other groups exhibit milder tariff rates. The major drop in average tariff between 1993 and 2003 was registered for transport equipment, which fell by 13.2 percentage points.

The implicit average tariff rate has been low: between 1.7 and 2.5 percent in the period from 1998 to 2003 (Table 2.1). The implicit rate stood at less than a half of the average import-weighted applied rate for respective years. Such a large discrepancy can be explained primarily by a proliferation of import duty exemptions and weak enforcement. This could indicate fiscal losses of US\$ 400–500 million a year. The implicit rate for imports that was not covered by free trade arrangements was about 5 percent.

Table 2.2. Import-Weighted Average MFN Tariffs on Non-Agricultural Goods in Ukraine for Major Commodity Groups (Percent)

	1993	2003	Change
Wood, pulp, paper, and furniture	2.8	6.9	4.1
Textile and clothing	9.3	6.8	-2.5
Leather, rubber, footwear, and travel goods	11.0	12.3	1.3
Metals	4.7	5.3	0.6
Chemicals and photographic supplies	4.4	6.1	1.7
Transport equipment	21.7	8.5	-13.2
Non-electric machinery	4.7	4.5	-0.2
Electric machinery	5.6	7.7	2.1
Mineral products, precious stones, and precious metals	7.7	8.7	1.0
Manufactured items n.e.s.	9.5	9.6	0.1
Petroleum	2.0	0.0	-2.0

Source: IER estimates based on Ukrainian tariff schedule and import structure.

At the same time, the tariff structure features international tariff peaks over 25 percent that represent 5.6 percent of the total tariff schedule and peaks over 50 percent that represent 3.1 percent of tariff lines. These tariff peaks are mostly related to agriculture.

The most protected agricultural commodity is sugar and sugar confectionery, for which the estimated ad valorem equivalent in 2002 reached the 146 percent tariff equivalent rate, compared to a very moderate rate of 10 percent in 1993. Sugar is also extensively protected via non-tariff measures. It is the only product for which the import quota is established not as a result of anti-dumping or safeguard investigations but as part of the domestic protection policy. The second most protected category is beverages, with a 71 percent tariff-equivalent rate, and the third is fruits and vegetables. Alcoholic beverages are also subject to core non-

Table 2.3. Import-Weighted Average MFN Tariff Equivalents on Agricultural Goods in WTO MTN (Percent)

	1993	2002	Change
Fish and fish products	6.4	15.9	9.5
Fruits and vegetables	10.0	65.5	55.5
Coffee, tea, cocoa, and preparations	6.2	17.0	10.8
Sugar and sugar confectionary	10.0	145.8	135.8
Spices, cereals, and other food preparations	9.0	32.1	23.0
Grains	10.0	30.1	20.1
Animals and products thereof	5.2	37.7	32.5
Oil seeds, fats and oils and their products	8.1	30.3	22.2
Cut flowers, plants, vegetable materials, etc.	9.7	1.3	-8.4
Beverages and spirits	13.3	84.3	70.9
Dairy products	5.0	34.1	29.1
Tobacco	30.0	3.3 ^a	-26.7 ^a
Other agricultural products	6.6	6.8	0.1

^aThis estimate could be biased since specific tariffs, expressed in units, were not taken into account.
Source: IER estimates.

tariff measures, such as licensing. Thus, agriculture in Ukraine seems to be highly protected with tariff and non-tariff measures. The only agricultural sectors with a liberal import regime are cut flowers, plants and vegetable materials, and unprocessed tobacco products.

There is evidence that high import tariffs on agriculture products provoke smuggling. It also shifts legal imports to the free economic zones, where they enter duty free thus undermining the collection of import duties. It is estimated that, in 2001, over a half of poultry imports were unrecorded.

The tariff structure for agrofood products has changed during the period under review. While in 1993 all import tariffs were ad valorem, in 1998–2003, however, specific and mixed rates became dominant constituting 80 percent of all tariff rates. It is well known that the burden of specific rates is sensitive to price levels: a higher price means a relatively lower tariff rate in terms of ad valorem equivalent. The extensive use of specific rates, thus, could cause a bias in imports toward more expensive goods.

Tariff Escalation

Tariff escalation occurs when import tariffs on finished products exceed those on semi-finished products, which in turn exceed those of raw materials. The result is higher protection of finished products than that based on import tariff for finished products alone. The mainstream view is that a significant tariff escalation does a disservice to the economy by overly shielding domestic producers from international competition and dampening incentives for improvement in efficiency and in technological advances (World Bank 2002). Tariff escalation also discourages exports since it gives domestic producers larger incentives to sell on the domestic market than to export.

Tables 2.4 and 2.5 present the distribution of simple-average import tariffs by stage of production (as defined in the WTO MTN) and by sector for the last decade. The tables clearly show tariff escalation both on aggregate and for almost every sector in each year.²⁹ The overall average tariff for finished goods was almost three times that for raw materials and this ratio was constant during the decade under consideration. At the same time, the gap between tariffs for semi-processed and fully-processed goods widened for some sectors, such as textile and clothing; leather, rubber, and footwear; and manufactured items. Therefore, the effective rate of protection of semi-finished and finished goods in Ukraine was, in fact, higher than their statutory tariff rates.

Tariff escalation in 2003 has been higher than in 1993, but it declined somewhat from its peak in 1998–99. Overall, tariff escalation appears to be mild by international standards due to low tariff rate levels in all product categories.

It is worth noting that while tariff protection of raw materials and fully processed goods had increased between 1993 and 2003, the average tariff for semiprocessed goods had actually gone down. The largest reduction occurred in textile and clothing, but most other sectors also registered this phenomenon (with the exception of metals, manufactured

	1993			1998			2003		
	Raw materials	Semi-finished products	Finished products	Raw materials	Semi-finished products	Finished products	Raw materials	Semi-finished products	Finished products
Wood, pulp, paper, and furniture	2.1	3.6	5.6	1.1	2.2	10.5	1.6	3.4	12.9
Textile and clothing	3.9	5.5	13.4	5.4	5.3	24.4	1.3	2.6	10.7
Leather, rubber, footwear, and travel accessories	5.0	9.6	12.1	0.6	9.2	16.6	2.1	7.6	17.2
Metals	2.0	4.8	4.7	1.7	4.2	6.8	1.8	4.8	6.8
Chemicals and photographic materials	n.a.	7.2	7.2	n.a.	5.1	8.4	n.a.	5.4	8.3
Manufactured items	2.4	4.5	5.8	5.0	8.2	10.9	3.9	8.4	11.8
Machinery and transport equipment	n.a.	n.a.	6.2	n.a.	n.a.	3.0	n.a.	n.a.	6.1
Total	2.6	5.8	7.8	3.5	4.7	9.7	2.9	4.4	8.5

Note: Petroleum and manufactured items, not elsewhere specified, are excluded (in accordance with WTO MTN).

Source: IER estimates based on Ukraine's tariff schedules.

29. Only two sectors (metals and chemicals) did not exhibit tariff escalation in 1993. All sectors in two other years exhibited this phenomenon.

Table 2.5. Tariff Escalation in the Agricultural MFN Tariff Schedule

	1993			1998			2002		
	Raw materials	Semi-finished products	Finished products	Raw materials	Semi-finished products	Finished products	Raw materials	Semi-finished products	Finished products
Fish	5.2	5.0	15.3	20.2	57.7	34.4	13.1	109.7	114.2
Fruits & vegetables	10.0	10.0	10.0	41.2	26.7	74.8	66.8	98.7	119.8
Coffee, tea, etc.	5.0	5.0	7.2	4.9	25.9	30.2	10.4	18.5	29.1
Sugar and sugar confectionary	n.a.	10.0	10.0	n.a.	58.5	46.8	n.a.	57.3	51.0
Spices, cereals, etc.	5.0	10.0	9.9	7.0	35.0	48.9	9.3	33.9	55.6
Grains	10.0	n.a.	n.a.	22.6	n.a.	n.a.	23.9	n.a.	n.a.
Animals and meat	5.0	n.a.	5.9	13.2	n.a.	50.4	1.8	n.a.	46.4
Oil seeds, oils and fats	2.5	n.a.	8.7	24.9	n.a.	46.5	18.8	n.a.	50.0
Flowers, plants, etc.	9.1	n.a.	n.a.	17.6	n.a.	n.a.	1.3	n.a.	n.a.
Beverages & spirits	n.a.	n.a.	15.2	n.a.	n.a.	84.2	n.a.	n.a.	157.2
Dairy products	5.0	n.a.	5.0	20.0	n.a.	42.6	15.8	n.a.	40.0
Tobacco	30.0	n.a.	30.0	0.0	n.a.	30.0	0.9	n.a.	89.9
Other agricultural products	5.6	5.0	5.0	12.8	5.0	18.5	15.0	5.0	5.9
Total for agricultural products	7.0	8.6	9.4	21.6	41.3	52.6	24.7	57.8	75.8

Source: IER estimates based on Ukraine's tariff schedules.

items and machinery). This led to additional support for domestic producers through cheaper intermediate inputs.

Although tariff escalation is rather mild on average economy-wide, there are important sectors where escalation is quite high. In particular, agricultural commodities exhibit a higher degree of tariff escalation. Moreover, the gap among tariff rates for unprocessed, semi-processed and processed products has widened during the last decade. While in 1993 the difference between tariffs for unprocessed and processed products was 2.4 percentage points, it reached 51.1 percentage points by 2002. Thus, the effective rate of protection in agriculture is higher than the nominal protection, and this burden is placed on households (who are the main consumers of agrofood products). Urban poor without access to land sustain disproportionately heavy welfare losses.

The geographic composition of imports strengthened this effect, since imports from the CIS free trade area (including Russia) consist mostly of raw materials and enter duty-free (with some insignificant exemptions). Finished goods come primarily from outside the free trade area and pay MFN tariff rates. Hence, the actual difference between trade-weighted tariff rates for raw materials and finished goods is higher than the gap between simple average rates.

Tariff Dispersion

Although quite modest in magnitude, Ukraine's tariff schedule exhibits high variation. The coefficient of variation calculated for tariff lines equals 1.0 (or 100 percent), which by international standards is quite high (see Table 2.6 for international comparison). Another sign of an over-complicated tariff structure is the high number of tariff bands in the schedule. The number of different MFN ad valorem tariff rates in Ukraine's schedule went up from 7 (ranging from 0 to 25 percent) in 1993 to 50 (ranging from 0 to 50 percent) in 2003. Fifty different tariff bands clearly overburden the tariff structure, and frequent changes in these bands create a high degree of uncertainty for conducting trade.

In general, there is little economic justification for and many dangers from providing differentiated tariff protection to various sectors of industry and agriculture (World Bank 2002). A wider range of tariff rates increases the administrative burden in customs administration and collecting tariff revenue and is less effective in preventing commodity misclassification, smuggling, and corruption. The tariff revenues will be more efficiently collected through a small number of tariff bands. Economic theory and practical evidence favor simple uniform tariff structures, which minimize economic distortions and misallocation of resources.

Table 2.6. Basic Characteristics of Tariff Schedules in Ukraine and Selected Countries (Non-Agricultural Commodities)

	Year	No. of tariff lines	Simple average	Coefficient of variation	Max	Duty-free lines (percent of tariff lines)	International peaks (percent of tariff lines)	Domestic peaks (percent of tariff lines)
<i>Ukraine</i>	2003	8258	6.9	1.0	50.0	19.6	8.5	5.4
EU-15	2002	8305	4.2	0.9	26.0	17.1	0.9	1.5
Armenia	2001	4450	2.3	1.8	10.0	76.8	0.0	23.2
Belarus	2001	8595	10.1	0.5	25.0	0.6	10.5	0.0
Czechoslovak								
Customs Union	2001	8201	4.2	0.8	30.1	16.2	0.8	1.8
Hungary	2001	10368	7.0	0.6	78.0	10.3	2.3	1.6
Latvia	1999	8608	2.9	1.8	30.0	21.5	0.0	16.4
Lithuania	2001	8488	2.5	2.2	33.8	79.8	1.4	15.8
Poland	2001	8394	10.1	0.6	119.2	5.0	13.4	1.2
Russia	2001	8716	10.1	0.5	20.0	0.6	10.4	0.0

Notes:

1. Coefficient of variation is a measure of relative variation and is calculated as the ratio of the standard deviation over the mean.
2. Domestic tariff peaks are defined as exceeding three times the overall simple average applied rate.
3. International tariff peaks are defined as exceeding 15 percent.

Source: WTO (2003); IER estimates.

Table 2.6 compares the basic characteristics of Ukraine's tariff schedule with a wide range of transition economies, as well as with the EU.

According to WTO (2002), the EU simple-average applied MFN tariff rate on non-agricultural products (excluding petroleum) in 2002 was 4.2 percent, down from 4.5 percent in 1999, while Ukraine's 2003 simple average statutory MFN tariff rate on non-agricultural products was higher—6.9 percent. Further, the EU grants duty-free (under FTAs) or reduced (under GSP) tariff treatment to the majority of its trading partners (with the exception of only nine countries). Taking this into account, the aggregate applied tariff rate in the EU was below the simple average statutory rate of 4.1 percent. Ukraine also offers large preferences to some partners in the form of FTAs, reducing its aggregate rate to 2.7 percent, which is below the EU benchmark. Also, Ukraine has a larger number of international tariff peaks than the EU—8.5 versus 0.9 percent of tariff lines.

Sector-wise, the MFN average tariff rates in Ukraine are higher than in the EU for the majority of product categories. The exemptions are petroleum products, inorganic chemicals, aluminum, lead, zinc, tin, and other non-precious metals, locomotives, and some textiles. Sensitive products, such as petroleum products and textiles, are protected more strongly in the EU than in Ukraine. In sum, Ukrainian MFN rates are generally higher than the EU's. However, the preferences offered both by Ukraine and the EU reduce this gap and the Ukrainian aggregate applied rates are *en par* with the EU's.

When compared to neighboring transition countries, Ukraine had a lower simple average MFN tariff rate than Poland,³⁰ Russia, and Belarus, all three of which have a 10.1 percent average rate. However, Ukraine's rate is significantly higher than in the Baltic countries, as well as in the Czech and Slovak Republics (before EU accession). The same is true if we compare the number of international peaks among these countries, as well as the number of zero tariff rates. Nevertheless, on aggregate, the Ukrainian tariff structure appears to be in line with the comparator countries, all of which have quite liberal tariff regimes, but not the most liberal.

Import Non-Tariff Barriers

Ukraine has been developing a system of non-tariff barriers (NTBs). The list of NTB measures applied in Ukraine from 1994–2004 is presented in Box 2.1. Following the framework laid out by Laird and Yeats (1990), we will further define the intensity index of NTBs as the percentage of cases when non-tariff measures have been actually applied to imports. The index is calculated by tariff line. The index could be either simple-average or import-weighted. In the latter case it reflects the composition of imports and is alternatively called import-coverage index.³¹ Table 2.7 presents both the simple-average

30. It is worth mentioning, however, that, in the case of Poland, 85 percent of industrial imports come in under preferential trade agreements. See WTO (2000) for trade policy reviews for Poland (before it joined the EU).

31. Formally, the simple-average NTB intensity index equals:

$$NTMI = \left(\frac{\sum_{i=1}^N \sum_{j=1}^J NTM_{ij}}{J \cdot N} \right) \cdot 100,$$

and import-weighted NTB indices. By design, these measures are simply the counts of NTBs. A tariff line is counted as subject to NTB if any of the measures cited in Box 2.1 apply. The indices, however, do not measure how severely the NTB impinges on trade. While Ukraine is using these NTBs on fewer tariff lines than many other countries, it is more severely restricting trade where they are used. The evidence from Chapter 5 suggests that, for instance, sanitary and phyto-sanitary controls may be less restrictively applied in other countries.

Box 2.1. Primary Non-Tariff Measures Applied in Ukraine in 1993–2004

- Compulsory certification of conformity to standards.
- Licensing of selected export and import activities.
- Minimum value requirement (in effect from 1996–2000).
- Preliminary customs declaration.
- Ecological control.
- Sanitary control.
- Phytosanitary control.
- Veterinary control.
- Permits for medicine imports.
- State procurement regulations with regard to imports.
- Customs value calculation inquiry (checking declared value for the purpose of tax and tariff calculations, in effect from 1996–2000).
- Customs controls.
- Verification of contract price and origin for selected commodities.
- Control over selected types of technology and equipment, such as energy-saving equipment, meteorological equipment, nuclear materials, weapons materials, materials that could be used to produce chemical and bacteriological weapons, and equipment for clandestine information gathering.

where NTM_{ij} is a dummy variable that takes a value of unity if the j type of the NTMs is applied to the tariff line i and zero otherwise.; N is a total number of considered tariff lines, $i = 1, \dots, N$; and J is a total numbers of considered types of the NTMs, $j = 1, \dots, J$.

The index equals 100 if each type of non-tariff measures is applied to each tariff line.

The import-weighted index equals:

$$IC = \left(\frac{\sum_i^N D_{i,t-m} \cdot IM_{i,t-n}}{\sum_i^N IM_{i,t-n}} \right) \cdot 100,$$

where $D_{i,t-m}$ is a dummy variable that takes a value of unity if one or more NTMs is applied to the tariff line i in the year $(t - m)$ and zero otherwise; $IM_{i,t-n}$ represents the value of imports in tariff line i in the year $(t - n)$. If n and m are zero, the index is based on current trade values, otherwise it is expressed in a base year trade weights. The IC shows the percentage of imports covered by at least one non-tariff measure. The index equals 100 if each tariff line, for which import value is non-zero, is subject to at least to one non-tariff measure. See Movchan (2004).

Table 2.7. Ukraine's Non-Tariff Measure Intensity Indices, 1993–2004

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Simple-average index	7.2	9.1	9.4	16.8	17.0	17.6	19.0	19.2	13.5	13.6	15.6	17.5
Import-weighted index	1.0	1.3	1.7	10.5	10.7	11.2	14.1	14.2	8.8	8.7	11.8	10.0

Note: These indices include 17 non-tariff measures.

Source: IER estimates.

As seen from the table, the simple-average index more than doubled from 1993 to 2004—from 7.2 to 17.5 percent, with the peak in 1999–2000. The import-weighted index, which takes into account the importance of NTBs with respect to the import structure, increased ten times from 1993 to 2004. In addition, the import-weighted index in each year was below the non-weighted index. This can be partly explained by Ukraine's import composition dominated by energy products (see Chapter 1 of this report) that are not subject to non-tariff measures. In addition, more restrictive non-tariff measures tend to dampen the imports of the respective commodities.

While in 1993 there were only few types of phytosanitary and veterinary controls in place, by 1998 the number of applied measures increased six-fold. New measures introduced include compulsory certification, minimum customs value regulations, ecological control, and others. The NTB index dipped in 2001–02 due to the elimination of minimum customs value regulations, relaxation of state procurement regulations (allowing foreign companies to bid for government procurement contracts), and the shortening of the list of commodities subject to licensing. However, in 2002–04 the index went up due to both the expansion of existing measures (extending the list of compulsory certification) and to the introduction of new risk-control measures by the Customs over commodities that are perceived to be prone to non-diligent practices.

The leading component of the index is safety standards, such as sanitary and phytosanitary, veterinary, and ecology controls; compulsory standards certification; and permits for medicine imports. These regulations can be classified as technical measures. There was a steady growth in non-tariff barriers related to safety standards between 1993 and 2004. The growth occurs mainly due to an increase in the number of commodities subject to these regulations. For instance, while in 1995 less than 6 percent of tariff lines were subject to compulsory testing, by 2004 the share more than quadrupled to 28 percent. The most extensive certification procedures applied to food products, where more than 80 percent of tariffs lines were subject to it. The least certified were pulp and paper products, where some certification was introduced only recently (in 2003), and the coverage is currently below one percent of tariff lines. (There is no compulsory certification for pearls, precious stones and metals, as well as for works of art and antiques.)

About 31 percent of tariff lines currently are subject to sanitary control, while phytosanitary and veterinary controls each cover approximately 11 percent of tariff lines. Sanitary controls cover all products of plant origin as well as animal and vegetable fats and oils, and food industry products. Some chemical products are also subject to sanitary control.

Veterinary controls cover all imports of live animals and animal husbandry products as well as meat products, fats, and leather and leather products. Phytosanitary controls cover plant products, and wood and wood products.

In order to compare the intensity of the NTBs in Ukraine with other countries, we calculated the core NTB index (see Table 2.8). This index conforms to the UNCTAD system of trade control measures and is compatible across countries. It includes a narrower range of NTBs aimed at quantity and price controls, such as licensing, quotas, minimum customs value requirements, anti-dumping and safeguards, and weapons control measures.

Table 2.8. Frequency and Import Coverage Indices for Core Non-tariff Barriers, 1993–2004

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Frequency index, percent of tariff lines	0.0	1.8	1.7	1.7	2.8	10.0	12.2	9.7	5.2	5.8	5.9	6.1
Import coverage index, percent of imports	0.0	4.8	4.8	4.5	8.3	12.3	11.1	11.1	5.7	6.3	6.7	9.0

Source: IER estimates.

The core barrier frequency index has increased between 1993 and 2004 from zero to 6.1 percent of tariff lines. The peak in NTB protection was attained in 1998–2000 due to the extensive use of the minimum customs value requirements. The abolishment of this regulation caused an immediate reduction of the core barrier index. However, the index steadily increased later due to the expansion of licensing and weapons controls.

The share of imports subject to at least one core barrier has been higher than the frequency index for most of the period. This can be explained by a higher level of protection for sectors which account for larger shares in total imports. This index peaked in 1998–2000 at 11–12 percent and then declined to 5–7 percent in 2001–03. There was some rebounding in early 2004, caused by the increase in licensing requirements for chemicals.

To conclude, the number of non-tariff measures faced by imports into Ukraine has significantly increased during the period of review. While at the beginning of 1995 the only core measure applied was licensing, by 1999 Ukraine has also started to conduct anti-dumping and safeguard investigations, established weapon control, and introduced the minimum customs value regulations (removed later). Most of the technical measures related to protection of health and the environment were in place in 1992–94 and have not significantly changed since then (including sanitary, phytosanitary, and veterinary controls, and controls over pharmaceuticals and medical equipment) except for tightened regulations for compliance with technical standards (compulsory certification).

Ukraine's NTBs do not look excessive if compared with OECD countries. According to Laird and Yeats (1990), the average frequency ratio of core tariffs in OECD countries in 1986 stood at 12.0 percent and the average import coverage was 17.7 percent. Among individual OECD members, the share of imports subject to non-tariff measures was 15.4 percent in Germany, 17.3 percent in the U.S., 18.6 percent in France, 20.1 percent in Greece, 21.4 percent

in the Netherlands, and 32.4 percent in New Zealand. The smallest import coverage was registered in Denmark and Finland (8.0 percent).

According to WTO (1998), in Hungary the frequency ratio of core non-tariff measures stood at 19.9 percent in 1991, and 7.8 percent in 1997, covering 19.5 and 12.8 percent of imports respectively. Thus, the Hungarian level of protection was similar to that observed in Ukraine in 2001–04, although the import coverage ratio in Ukraine was lower.

Core NTBs in Ukraine are also mild if compared with most developing countries (see Table 2.9). However, Sub-Saharan Africa and Europe and Central Asia regions exhibit even lower NTB frequencies than Ukraine.

Region	1989–94	2000
Latin America and Caribbean	18.3	15.3
Europe and Central Asia	N.A.	3.4
East Asia and Pacific	30.1	5.5
Sub-Saharan Africa	26.0	2.3
Middle East and North Africa	43.8	8.5
South Asia	57.0	13.3

Source: World Bank, *Global Monitoring Report 2004*.

In sum, Ukraine seems to be quite liberal in terms of official non-tariff core protection, compared to OECD countries. In particular, Ukrainian agricultural imports look more liberalized in comparison with the EU. For instance, during the 1980s in the EEC-10, dairy products and cereals and preparations had a 90 percent frequency index, meat 78 percent, and live animals 60 percent. A gradual strengthening of safety standards in Ukraine looks quite natural and is likely to continue. Safety measures, if correctly formulated and properly enforced, are fully consistent with WTO rules.

However, the level of the informal NTBs is not taken into account in the above index. Available surveys of the business environment point to implementation problems of NTBs that raise effective trade barriers and sour the business climate. A higher level of informal non-tariff restrictions undermines the benefits of a statutory liberal trade regime. According to the International Finance Corporation survey of the business climate in Ukraine for 2002 (IFC 2003), sanitary inspections, as a part of import procedures, were considered a barrier by approximately 25 percent of respondents, while veterinary inspections were mentioned by 8 percent of entrepreneurs. However, the frequency of legal violations during veterinary inspections was almost twice as high as during sanitary inspections (15 versus 8 percent).

Despite the rise in compulsory certification coverage, the share of respondents that claim certification to be a major obstacle to their business development dropped between 2000 and 2002 from 42 to 30 percent, although still remaining quite high. The three most severe problems faced by entrepreneurs when obtaining certificates of conformity were:

a large number of documents requested, long waiting period, and complexity and non-transparency of procedures.

Custom control itself is also viewed by businesses as a barrier to trade. According to the IER survey of manufacturing, 47 percent of respondents reported it as an impediment and 13 percent named it as a significant impediment. According to the 2002 IFC business survey, border customs inspections were considered a barrier to business and development by more than 30 percent of firms.

In the transit country, such as Ukraine, another important aspect of the trade regime relates to rationality and predictability of government tariff policy in the transportation sector, especially in railways and pipelines. The GOU should avoid using transportation tariffs either as a tool of market protection or implicit subsidization of exporters.

Quantitative Import Restrictions and Contingency Measures

Ukraine applies import licensing and quotas on a variety of products. These restrictions are of two principal types: (i) licensing of potentially dangerous and environmentally unfriendly products (such as pharmaceuticals, agricultural chemicals, ozone-depleting substances, and armaments), stamps and excise labels, and (ii) products subject to quantitative limitations due to contingency measures, adopted by Ukrainian Interdepartmental Commission on International Trade. Ukraine tends to apply liberally safeguards and anti-dumping measures. The list of quantitative restrictions in effect is quite long. CIS countries (especially, Russia) and EU members so far have been the main targets of contingency measures.

Although Ukraine's Law on Safeguards and Anti-Dumping Measures is generally WTO-compliant (albeit with some minor inconsistencies), Ukraine's application of anti-dumping and safeguard measures is often arbitrary and non-compliant with WTO rules (see Chapter 5 on WTO). Since Ukraine is not a member of the WTO, it is not subject to WTO trade remedy disciplines. Nevertheless, non-compliance with WTO rules is clearly trade-restrictive. Also, since Ukraine is in the process of accession negotiations, members' complaints on this issue provide a stumbling bloc in the negotiations. There are no clear procedures for the application of the contingency measures in the CIS free-trade area either, which also restricts trade in the CIS. In general, external curbs on domestic protectionist pressures in Ukraine are weak at the moment.

Some of the trade disputes between Ukraine and its partners clearly create a vicious circle of mutual sanctions. On the one hand, since Ukraine does not have market-economy status with its major OECD partners and hence does not have a clear recourse against contingency measures introduced by its counterparts, it has an inclination to respond in kind. Effective conflict resolution procedures in the CIS are not available either. On the other hand, there is a virtual lack of recourse by the partners against contingency measures introduced by Ukraine save for introducing their reciprocal measures. This approach was widely used by Ukraine's partners leading to the unproductive situations of trade wars. However, since the economic size of Ukraine's main partners (EU and Russia) is much larger than Ukraine's, their measures tend to inflict greater losses on Ukraine than vice versa.

Ukraine would be best served if it seriously restrains its application of contingency measures. Contingency protection should be considered as an extraordinary measure and should be preceded by bilateral negotiations, with all pros and cons carefully weighted. In any case, Ukraine should adhere to the WTO rules governing the application of such measures. Ukraine and its CIS partners (who are also outside the WTO) should introduce WTO-style disciplines in the CIS free trade area independently and in advance of joining the WTO.

Export Regime

Ukraine upholds export licensing for usual safety, security, and environmental reasons. It maintains export duties on a variety of agricultural products, such as young live cattle, heifers, cows, bulls, sheep, cattle hides, sheepskins, lambskins, pigskins, flax seeds, and sunflower seeds. Ferrous scrap metals are also subject to export duty (which causes great tension in trade relations with the EU).

As argued in Chapter 5 of this report, export duties per se are not prohibited by WTO agreements and, from the economic standpoint, are equivalent to import tariffs. Therefore, some members of the Working Party on Ukraine's accession are trying to make a case that these duties contradict the spirit of WTO agreements and are in contradiction with some articles. Russia, for example, reportedly has negotiated with WTO members to maintain an export tax on natural gas, of which it is a major world supplier. Notwithstanding this argument, it is worth re-assessing potential benefits of these taxes for the Ukrainian economy. The standard argument made by Ukraine that export duties help to increase capacity utilization in downstream industries should be more thoroughly weighted against losses made in the upstream industries affected by such measures. Export taxes, and trade taxes generally, are a poor policy instrument to address domestic capacity utilization problems. The Ukrainian authorities have never presented a convincing cost-benefit analysis of export taxes.

The standard economic arguments in favor of export taxes are that they may increase economic welfare when other taxes are costly to collect or when the exporter is such a large supplier to world markets that an export tax shifts terms of trade in its favor (the tax raises the world price of its exports relative to its imports). As will be discussed in the following section of this study, export tax revenue is less than 0.1 percent of total tax revenue (see Table 2.12), so export taxes cannot be defended on fiscal grounds. What about the market power argument? Table 2.10 below shows that Ukraine's exports of goods it subjects to exports taxes make up very small shares of their respective world markets. The only products in which Ukraine has a market share of more than one percent are sunflower seeds and scrap metal. The share of sunflower seeds is sizeable—in 2001 Ukraine was the world's third largest exporter, after France and the United States—but perhaps not enough for an export tax to produce large terms of trade gains. By way of comparison, Russia's share of the world natural gas market in 2001–02 was almost 40 percent. Ukraine ranks much lower in world scrap markets.

Although the Hryvnia is convertible in current account operations, there exist requirements for exporters to repatriate export earnings within the 90-day period (180-days for pharmaceuticals), which can be very burdensome, which is confirmed by the ex-

Table 2.10. Ukraine's Market Share in Goods Subject to Export Taxes, 2001–02

Product subject to export taxes	Ukraine's share of world market
Live bovine animals (HS010290)	0.08%
Linseed, whether or not broken. (HS120400)	0.01%
Sunflower seeds (HS120600)	7.59%
Other oil seeds (flax) (HS120799)	0.97%
Raw hides and skins of cattle and horses (HS4101)	0.97%
Raw skins of sheep or lambs (HS4102)	0.01%
Other skins (pigskins) (HS410390)	0.09%
Ferrous waste and scrap; remelting (HS7204)	3.64%

Source: World Bank staff calculations using UN Comtrade data for 2001 and 2002.

porter survey conducted for the purposes of this study. There is also a requirement for selling 50 percent of foreign currency from export proceeds on the domestic currency market.

Ukraine works on a destination principle of value-added taxation: that is, it collects taxes on imports not exports. VAT paid on both domestic and imported inputs is subject to reimbursement upon the exportation of finished goods. However, anecdotal evidence and the survey results indicate that exporters without high political connections incur significant costs of refund delays. The existing VAT refund mechanism creates considerable hurdles for exporters.

Sectoral Subsidies and Free Trade Zones

Ukraine maintains extensive sectoral subsidies and has a multitude of free trade zones and priority development areas. The following industries have been receiving subsidies of different magnitude during the last five years: shipbuilding, coal mining, steel, motorcars, aircraft, space, chemicals, pharmaceutical, and construction. It is a tricky issue if some of these subsidies amount to export subsidies in the definition of the WTO Agreement on Subsidies and Countervailing Measures, since these subsidies target all production, both for domestic sale and for exports. Although these issues have not so far caused major problems in Ukraine's WTO accession negotiations (see Chapter 5), sector studies reveal the export dimension of the subsidies, in economic rather than legalistic WTO terms. See, for instance, Chapter 4 for the analysis of steel subsidies.

There are 11 free economic zones in Ukraine today: Azov, Donetsk, Zakarpattya, Interport Kovel, Kurortopolis Truskavets, Mikolaiiv, Porto Franco Odessa, Port Crimea, Reni, Slavutich, and Yavoriv. There are also nine special priority areas granting privileges comparable to those of free economic zones. Free economic zones and priority development areas are a comparatively new phenomenon in Ukraine. The first free economic zones were established in 1999. The main goal of zone formation was regional development through establishing business-friendly enclaves in an overall hostile business climate. Export facil-

itation was of secondary importance. Zones and territories export about one-third of their output, which constituted only four percent of total Ukraine exports in 2003. Table 2.11 lists privileges granted in each special economic zone.

The privileges are granted not to all activities in the zones but only to a list of investment projects specified by government resolutions. In order to qualify, a project should meet the following criteria:

- the project belongs to the list of priority types of economic activity;
- minimal investment is in an amount from US\$0.2–3.0 million, depending on the type of the activity;
- the project is approved by the zone authorities; and
- there is a contract with relevant Central Government bodies.

As seen from the table, some (but not all) zones enjoy special customs regime (customs territory). Imports that are consumed in the free economic zones are exempt from import duties. Goods originating in the free economic zones and shipped either abroad or to the customs territory of Ukraine outside of the zone are also exempt from customs duties. According to the MEEI, duty-free importation of raw materials is the main channel of tax subsidies, which contradicts the primary goal of such zones as a vehicle for facilitating technology and foreign investment.

There are two controversial topics in WTO accession negotiations concerning free economic zones. One, import duties from some zones and priority development areas are not collected when goods made in free economic zones are sold inside the customs territory of Ukraine but outside of the zones, in violation of WTO rules. Two, preference to investment projects that promise to procure Ukrainian-made goods contradicts TRIMS (see Chapter 5).

Table 2.11 illustrates well the ad hoc nature of special economic zone regulations. Each zone offers a unique set of privileges to investors. Not surprisingly, legal arrangements for zones and territories are extremely complicated. Besides a few umbrella laws on free economic zones, each zone has to be created according to a separate law passed by Parliament, in accordance with the Constitution of Ukraine.

Free economic/trade zones can play a significant role in economic development, although the overall international experience with free trade zones is mixed. Zones could succeed only if they are properly set-up, well managed, WTO-compatible, and integrated in a national economic reform program (Madani 1999). Ukrainian arrangements do not meet these criteria. Moreover, Ukrainian regulations create strong incentives and opportunities for tax dodging and rent-seeking, and breed corruption.

It is clear that these regulations should be completely revamped. There is a tacit admission of problems with the special zones by the GOU since it has introduced a moratorium on new zone creation. At the same time, a drastic change of special zone regulations may lead to moral hazard issues. In theory, firms that have already set up their operation need to be grandfathered from the changes in regulations. This creates a sticky situation, however, since privileges in some zones are granted for a period of up to 60 years. Nevertheless, in a country like Ukraine, with its manageable size and poorly-controlled administrative system, a better strategy of export development would be an emphasis on across-the-board improvements in the national business environment rather than creation of tiny enclaves with better conditions than in the rest in the country.

Zone	Special customs regime	Exemption from enterprise profit tax	Exemption from investment taxation	Exemption from payment of customs duties and VAT on imports	Exemption from mandatory sale of foreign currency earnings	Exemption from land tax	Exemption from duties to some other budgetary fund
Azov	Yes	20 percent rate	Yes	No	Yes	Zero rate during development	Yes
Donetsk	Yes	20 percent rate	Yes	No	Yes	Zero rate during development	Yes
Zakarpattia	Yes	20 percent rate	No	No	Yes	No	Yes
Yavoriv	No	Zero rate for 5 years; half of standard rate afterwards	No	For 5 years	No	Zero rate for 3 years; half of standard rate afterwards	Yes
Slavutich	No	Zero rate for 3 years; half of standard rate from year 4–6	Yes	For 5 years	Yes	Zero rate for 3 years; half of standard rate from year 4–6	Yes

Kurortopolis Truskavets	No	Zero rate for 3 years; half of standard rate from year 4–6	Yes	Yes	Yes	Zero rate during development; half of standard rate for another 10 years	No
Porto Franco Odessa	Yes	Zero rate for 3 years; half of standard rate from year 4–6	Yes	No	Yes	No	No
Reni	Yes	20 percent rate	Yes	No	Yes	No	Yes
Port Crimea	Yes	20 percent rate	Yes	No	Yes	Zero rate for 5 years	Yes
Interport Kovel	Yes	20 percent rate	No	No	Yes	Zero rate for 5 years	Yes
Mikolaiiv	Yes	Zero rate for 3 years; half of standard rate from year 4–6; free reinvestment from year 4–10	Yes	For 5 years	Yes	Zero rate for 5 years	No

Source: Ministry of Economy and European Integration.

Government capabilities to support export and investment facilitation in Ukraine have been quite weak. A specialized government export and investment promotion agency does not exist today, although it used to exist in the past.³² Some functions of such an agency are formally assigned to other ministries, most importantly, to the MEEI, but the performance of such functions remains of low viability and are insufficiently coordinated with the needs of the private sector. The (primarily Government-owned) Ukrainian Export-Import Bank does some work in this area, partially helped by the credit line extended by the World Bank, but these activities are on a rather low-scale.

Fiscal Aspects of Trade Regime

Table 2.12 presents aggregated data on the taxation of imports from 1998–2002. Full data are reported in Annex Table 2A.1.

	1998	1999	2000	2001	2002
Total foreign trade revenues (UAH Mill)	3,783	4,187	5,313	6,156	9,656
as percent of total tax revenues	11.2	11.1	11.4	10.9	13.8
Composition of taxes on trade (as percent of total foreign trade revenues)					
–Customs duties	23.4	20.3	26.3	28.7	22.3
Import tariff	23.4	20.3	26.2	28.5	22.2
Export tax	0.0	0.0	0.1	0.1	0.1
–Excise tax on imports	5.3	5.0	8.3	7.2	5.1
–VAT on imports	69.0	70.2	62.2	61.1	70.3
–Other taxes	2.3	4.5	3.2	3.0	2.3
Memo: Total tax revenue (UAH Mill)	33,729	37,819	46,540	56,539	69,726

Note: For 1998–2000 it was assumed that value-added receipts on imported goods accounted for 35 percent of total value-added receipts.

Source: State Treasury of Ukraine and World Bank staff estimates.

The table shows that the share of revenue from foreign trade activities in tax receipts stood in a range that can be assessed as moderate but significant. If broken down by tax, trade revenue consists mainly of VAT on imports—this share spiked at 70 percent in 2002. A full half of VAT collected in that year came from imports. Customs duties accounted for about a quarter of trade revenues, and excises for only 5–8 percent.

Taxation of imports is the primary vehicle of collecting VAT, reflecting in part an increase in imports, but basically highlighting the weak capacity for taxation of domestic activities. Customs duties play rather a minor role in import taxation, accounting from 0.7 to 1.0 percent of GDP during the period under consideration. In 2002, customs duties were less than one-third of VAT collected on imports and the amount of export tax was

32. See Morisset and Kelly (2003) for a review of the best practices in investment promotion.

trivial. From the taxation viewpoint, a modest collection of customs duties does not justify the administrative complexity of a highly detailed and variable import tariff schedule, which creates incentives for commodity misclassification at customs fuelling the scope for corruption. These given revenues from import duties would be collected more efficiently with a simpler and more uniform tariff.

Trade Regime: Perceptions by the Private Sector

Exporters and importers in Ukraine are subject to a vast regulatory framework. In addition to clearing Customs they have to deal with at least eight other state agencies for only the main permits and registrations. In special cases, this number is even higher. Also, since the necessary documentation must be cleared in these agencies frequently, the traders are required to pay multiple visits to state agencies, notaries, and so forth. Table 2.13 presents the major requirements and agencies that enforce them.

Agency	Types of Permits
National Bank of Ukraine	Currency import or export license
Ministry of Economy	Import License Export License Registration of contract Individual License Certificate of compliance with technical regulations Document on recognition Expert conclusion on export of scrap metals
State Agency on Copy Rights	Permit for import of media for recording
Ministry of Interior	Permit for import of hunting, pneumatic, gas weapons
Ministry of Health	Sanitary Permit Permit for new medical equipment Permit for narcotics
State Committee on Medical and Biological Industry	Permit for import of cosmetics and hygiene products Permit for import of pharmaceutical products
Ministry of Agriculture	Phyto-Sanitary certificate Permit for import of plants protection chemicals Permit for import of veterinary medicine Veterinary certificate
Ministry of Ecology	Permit for import of trash Permit for destruction of goods Permit for import of agricultural goods Permit for import or export of controlled goods

Source: Dubinina and Sorokina (2004).

Many (but not all) trade contracts must be registered. Those that must be registered relate to the exportation of goods subject to voluntary limitation in order to avoid dumping, anti-dumping procedures, quotas and licenses at the destination country, barter arrangements, and special regulations introduced by the Order of the MEEI from July 11, 2002 “On the List of Exports subject to the Registration of the Trade Contract.” Re-exportation of goods regulated by national laws or international treaties should also be registered.

International trade operations require licensing by the MEEI. Licenses are of the following types: general export-import license; open export-import license that regulates time of operation and amount of goods; individual or one-time license; import anti-dumping license; import compensatory license; import special license—issued in the cases of investigation or special conditions.

Businesses that conduct international trade have been required to register with the Customs; however, the status of this regulation today is unclear. The State Customs Service (SCS) received the right to register businesses in 1996. This right was however revoked in 2000. There are no references to such registration in Laws or Decrees of the President today. However, according to the official letters of the SCS, such registration was conducted at least until 2003. There is no evidence that it has stopped even now, after the new Customs Code was implemented in January 2004. The only difference is that the SCS does not send formal letters explaining registration procedures and requirements anymore.

Businesses that violate the above, rather complex, regulations can be subjected to fines, administrative and criminal sanctions, the imposition of individual licensing regime, and a temporary ban on all international trade activities. The major problem related to sanctions is non-transparency of associated arbitration and appeal procedures. As a result, exporters feel that a decision on the removal of special sanctions is often arbitrary and is linked to demands for informal payments. In order for a firm to prove that it corrected a violation, it has to apply to the MEEI with a letter that (i) explains both reasons for violation and corrective measures undertaken, and (ii) provides documented proof from the state controlling agencies that these measures were indeed implemented.

Two major studies conducted in Ukraine assess quantitative indicators related to international trade barriers. These are Cost of Doing Business Survey, conducted by the World Bank, and Business Environment Survey, conducted by the IFC. Both studies were conducted at the end of 2002—beginning of 2003 and published in 2003. Both studies assessed perceptions by the traders of trade regulations in Ukraine.

The IFC study assessed the perception of businesses on what import procedures present the greatest obstacle for international trade. Filling customs declarations and customs clearance received the greatest percentage of answers that these procedures are very problematic (see Figure 2.1). The World Bank study measured the perception on the five-point scale, ranging from 0 = less problematic to 5 = most problematic (see Figure 2.2).

Both studies point to custom clearance as the major problem area while quotas, permits, and certification lag behind. The IBRD study also clearly shows that unpredictability is considered the greatest problem in the process of dealing with government officials during international trade operations. This unpredictability most probably relates to the above-noted practice of using indicative prices and in general various methods of price definition in Ukraine. The IFC study also pointed to the certification of imported goods as one of the most corrupt practices that are followed by related sanitary control, licensing, and customs control.

Figure 2.1. Import Procedures Perceived as Problematic, IFC Study
(share of respondents who consider them to be problematic, percent)

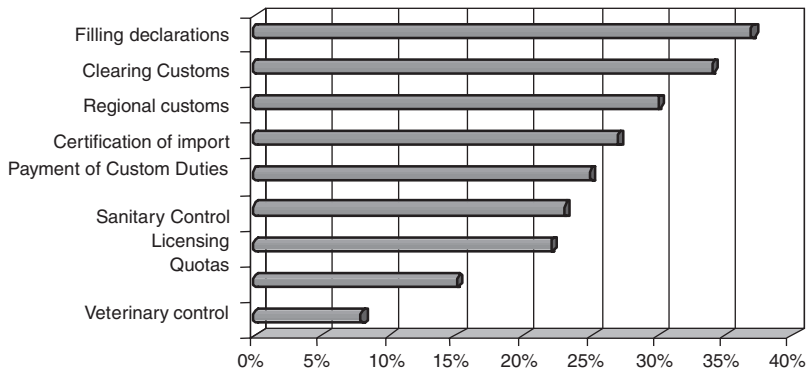
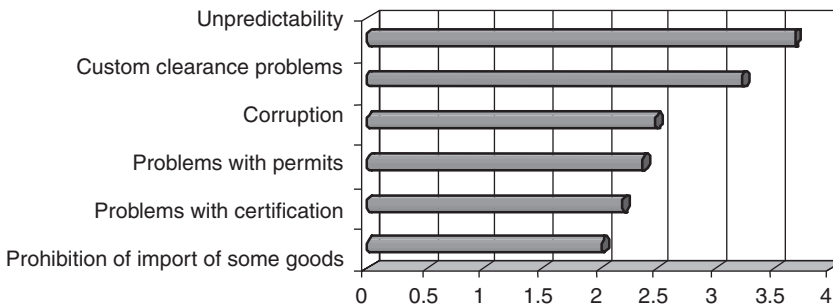


Figure 2.2. Import Procedures Perceived as Problematic, World Bank Study
(0 = less problematic, 5 = most problematic)



Exporters' Views of the Trade Regime: The Results of the 2004 Survey

In order to deepen the understanding of the main existing obstacles for export expansion in Ukraine, a special survey of 500 exporters was commissioned as part of the preparation of this study (Box 2.2). The survey, which was primarily focused on export-related issues, has essential informational advantages relative to the more conventional surveys of costs of doing business (CODB), some of which have been referred to earlier in this Chapter. Such advantages derive, for instance, from the fact that in most CODB surveys exporters are a significant minority of respondents,³³ which limits informational depth on the results as they relate to the quality of the export regime.

According to the surveys and interviews, Ukrainian exporters consider that certain components of the country's trade regime represent a major obstacle for their export

33. In the 2002 CODB only 12 percent of respondents admitted to being engaged in export operations.

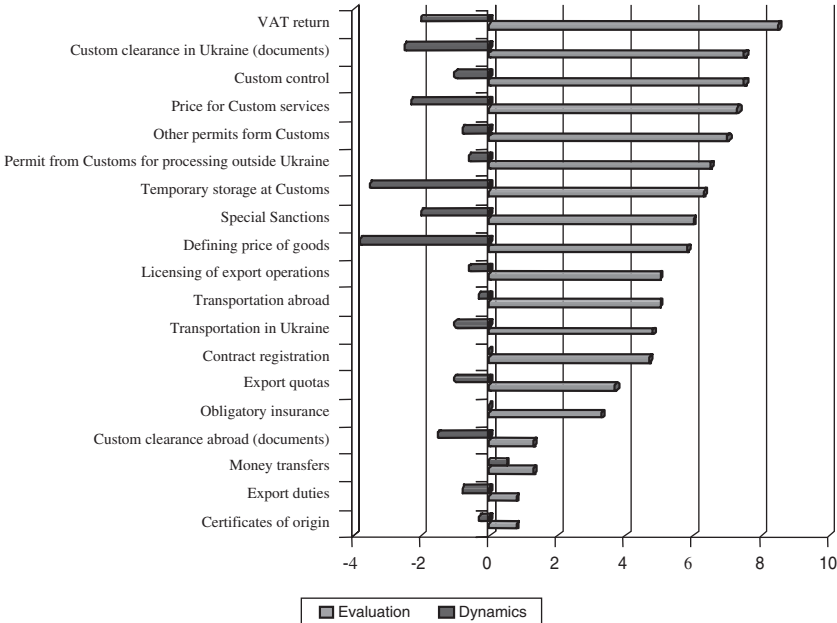
activities. In addition, private sector representatives believe strongly that there were no improvements in the export regime during the last 12 months. Both qualitative and quantitative responses from the participants indicate that the greatest problems faced by Ukrainian exporters relate to the issues of VAT refund and customs clearance (Figure 2.3).

Box 2.2. 2004 Survey of Ukrainian Exporters

The survey of 500 Ukrainian exporters was undertaken by the Ukrainian Civic Center for Institutional Development (CID) in May-June 2004. The survey was conducted in six regions of Ukraine (Lviv, Khmelnycky, Kharkiv, Ivano-Frankivsk, Odesa, and Kherson) and it is based on the nationally representative sample. In addition to the survey, in four of these regions the CID conducted structured Focus Groups (FG) meetings with exporters (one per region) and 20 in-depth qualitative interviews with managers of larger exporting companies. Both the interviews and FG meetings were conducted according to the standard pre-designed templates. The FG meetings were essential in assessing prevailing perceptions and attitudes of businesses, while the interviews helped to advance understanding of causality in the obtained survey data.

The participants in the CID exporter survey represent a broad spectrum of Ukrainian exporters. Eighty-five percent of the participants are fully private businesses, out which 20 percent are fully or partially foreign-owned. About half of the survey participants are SMEs with less than 50 employees. The average exporter participated in the survey conducts 26 export transactions a year with average annual export sales of about US\$227,000.

Figure 2.3. Assessment of Different Components of the Export Regime
(Scale of 0–10, where 0 = no problems, 10 = very significant problems)



When asked to name the main reasons for such a negative evaluation of the trade regime, the FG participants listed the following interrelated reasons:

- High incidence of informal payments.
- Arbitrary interpretation of rules by government officials.
- Frequent changes in requirements.
- Contradictory and unclear rules.
- Decision making is too time consuming.
- High costs of compliance.

Relative to these two leading administrative barriers (VAT refund and customs administration) most other administrative instruments of export regulation appear to be much less of a problem for exporters. These less problematic areas include administration of export permits and licenses, registration of export contracts, and obtaining certificates of origin. In addition, the exporters consider the available payment system to operate quite satisfactorily.

Only a third of survey respondents reported that they applied for VAT refund. Moreover, the effective rate of reimbursement for those who applied for VAT refund on average was less than 50 percent of the claim. Sixty-two percent of respondents named the overall difficulties of the refund process, including relatively high costs of such a process, as their motif for abstaining from application. Corrupt state officials were almost unanimously identified in interviews as a primary reason for delays with VAT refund.

Interactions with the Customs are viewed quite negatively by Ukrainian exporters. FG participants pointed to unjustified processing requirements, expensive and slow procedures, and significant corruption at the Customs as main reasons for such negative perceptions. They also pointed to subjectivity in definition of prices of goods, as well as arbitrary selection of commodity codes for registering export transactions. In addition, the participants frequently complained of being arbitrarily forced to use unnecessary customs services, for which they are later charged excessively high prices. According to the survey, in 2004 it took on average 3.2 days per one customs clearance. The clearance process is relatively expensive. Average administrative costs of exporters per customs clearance amounted to US\$156.6 (net of customs duties and export taxes). Ninety percent of respondents reported that had to make at least some payments to facilitate customs clearance.³⁴

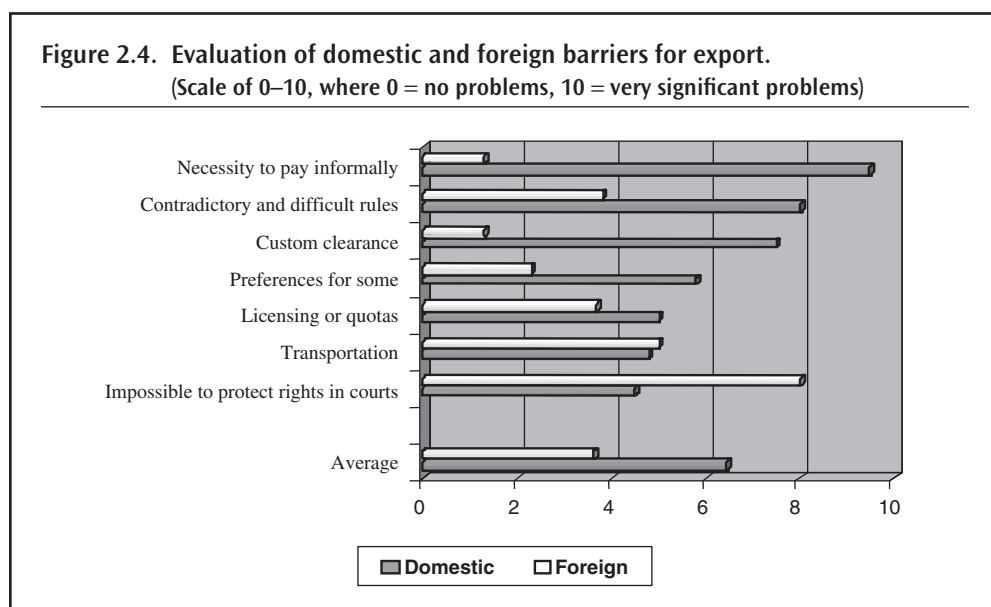
The current export regime is also characterized by numerous requirements for mandatory preliminary registration and permits for companies that plan to engage in export activities. Apparently these administrative requirements are somewhat selective, and a considerable share of respondents managed to avoid them. Registration of exporters has the greatest coverage in the sample, with 74 percent of respondents claiming to have such registration. This is followed by the frequency of registration of export contracts (24 percent) and by export licenses (21 percent). In addition, 41 percent of respondents cumulatively had to obtain various other types of export permits (although individually each of such permits was required from a relatively small share of the sample). These registration requirements bring about quite a significant regulatory burden for exporters with the average cost of a single permit or license amounting to US\$144.

34. One should keep in mind that often in business surveys respondents group together all agencies involved with goods clearance as "customs."

The results of FG meetings show clearly that Ukrainian exporters face by far more problems at home than abroad (Figure 2.4). The only serious concern that exporters have about the trade regime abroad relates to a difficulty to protect their rights in foreign courts.

From the perspective of Ukrainian exporters, the recent EU enlargement should not create significant new problems for exports to new EU members. The markets of these countries have already been perceived as quite similar to those in the EU in terms of difficulty of market access.

Overall, the results of the 2004 survey are consistent with the earlier surveys in pointing at major remaining deficiencies in the country's business environment, first of all related to customs operations that are the primary obstacles for deepening Ukraine's participation in international trade and global integration. There are domestic obstacles, which are entirely under government control. Their removal does not require complicated international negotiations, therefore naturally the top government priority should be addressing these particular elements of the trade regime. While in the last few years the Government made some progress in improving Ukraine's business environment by, for instance, streamlining regulations related to company registration and licensing, these positive changes have not yet reached the area of trade facilitation.



Removal of the domestic behind-the-boarder obstacles for trade is broadly viewed as a strategic reform priority within the trade policy agenda. The World Bank (2003) report *Global Economic Prospects 2004* lays special emphasis on non-transport factors in trade facilitation as a key determinant of a country's ability to participate in the global economy. It singles out such policies as improvements in customs administration, regulatory environment, and the availability of services sector infrastructure for traders. The OECD (2001b) paper summarizes various available quantitative estimates of the impact of trade facilitation measures on costs of international trade. For instance, Hummel (2001) con-

cludes that each day saved due to a faster customs clearance is worth 0.5 percent reduction of ad-valorem import tariff.

Moreover, international competitiveness crucially depends on a country's overall business climate rather than trade-specific regulatory requirements. Lessons from international experience suggest that improvements in the business climate and associated FDI attraction are the key to export diversification and robust economic growth. Table 2.14 below presents the findings of the global Doing Business survey conducted by the World Bank Group in 2004. Ukraine's business environment as reflected by the selected indicators is (predictably) worse than in high-income OECD countries and for most indicators it is less favorable than the average for the transition economies in Europe and Central Asia. As to neighboring countries, Ukraine is lagging behind Russia and is ahead of Belarus. Ukraine is behind Poland on indicators of the intensity of regulations, but ahead of it on the indicators of unit regulatory costs.

Table 2.14. Selected Indicators for the Quality of the Business Environment, 2004

	Ukraine	Russia	Belarus	Poland	ECA Average	OECD average
<i>Starting a business</i>						
Number of procedures	15	9	16	10	9	6
Time (days)	34	36	79	31	42	25
Cost (% of income per capita)	17.6	6.7	25.3	20.6	15.5	8.0
Min. Capital (% of income per capita)	113.9	5.6	44.3	237.9	51.5	44.1
<i>Registering property</i>						
Number of procedures	9	6	7	7	6	4
Time (days)	93	37	231	204	133	34
Cost (% of property value per capita)	4.3	0.8	0.2	1.6	3.0	4.8
<i>Protecting investors</i>						
Disclosure index (from 0 to 7)	3	3	1	4	3.6	5.6

Source: World Bank, *Doing Business 2004*.

Conclusions

This chapter's findings are summarized as follows:

- Overall, the statutory import trade regime in Ukraine is quite liberal compared with both the EU and transition economies in the CEE (before they joined the EU), but not the most liberal. However, the real picture is much less favorable because of significant behind-the-border administrative barriers. Tariff levels are mild on average, albeit with a few peaks. The Ukrainian tariff structure appears to be in line with the comparator countries. There has been a steady trend toward trade liberalization in terms of reduction of average tariff and NTB since the peak of tariff and non-tariff protection attained in or around 1999.
- However, the Ukrainian tariff schedule has three important drawbacks: high agricultural tariff equivalents, tariff escalation, and excessive complexity. Agricultural

tariff equivalents were higher than non-agricultural by an order of magnitude—31.4 versus 2.7 percent in 2002. Agriculture seems to be excessively protected.

- Tariff escalation increases protection of domestic producers of finished products over statutory import tariffs. It does a disservice to the economy by overly shielding domestic producers from international competition, and dampening incentives for improvement in efficiency and in technological advances.
- Ukraine's tariff schedule is overly complex, which causes allocation inefficiencies, encourages commodity misclassification, and corruption. Modest results of customs duty collection also do not justify the necessity for such a complex arrangement. Ukraine will be better-off with a simpler and flatter tariff schedule.
- The number of non-tariff measures faced by imports into Ukraine has significantly increased since the mid-1990s. Nevertheless, Ukraine seems to be quite liberal in terms of the index for official non-tariff core protection, compared to OECD countries. However, the level of the informal NTBs is not reflected in such an index. The survey results point to serious implementation problems of NTBs that raise the effective level of trade barriers and sour the business climate.
- Ukraine tends to frequently apply contingency measures (safeguards and anti-dumping). Ukraine would be best served if it restrains its use of contingency measures. Their application should be preceded by bilateral negotiations and based on better analysis of pros and cons. Ukraine should also adhere to WTO rules governing the application of such measures. Ukraine and its CIS partners should introduce WTO-style disciplines in CIS trade independently of their joining the WTO.
- Ukraine maintains export taxes and restrictions on a limited variety of products (selected agricultural products and metal scrap) and implicit subsidies to exporters, which creates a stumbling bloc in its WTO accession negotiations and trade relations with the EU. Because the economic rationale for these measures is dubious at best, the Government should work toward either repealing or phasing out these arrangements.
- There is evidence that the 90-day currency convertibility requirement is burdensome for exporters. The Government should make it more flexible in the short run and move toward liberal currency regulations in the long run.
- Free economic zones in their current format are poorly set up and managed, and WTO-incompatible. Rather than fostering strong export performance, they create incentives and opportunities for tax dodging and rent-seeking, and breed corruption. Despite prior obligations taken by the Government, these regulations need to be completely revamped, albeit with special attention to minimizing the moral hazard of regulation changes.
- In the view of Ukrainian exporters, the major obstacles to their export expansion are domestic and relate to certain deficiencies of the country's trade regime. Issues of VAT refund and customs clearance are indicated as leading administrative barriers for trade. In addition, private sector representatives believe strongly that there were no improvements in Ukraine's export regime during the last 12 months. The Government has to prioritize cleaning the system from highly costly and distortive practices (indicative prices on inputs, unwanted expensive services for traders, etc.)
- The leading factors that influence the private sector's negative evaluation of the trade regime include (i) high incidence of informal payments, (ii) arbitrary interpretation of rules by government officials, (iii) frequent changes in requirements, (iv) contradictory and unclear rules, and (v) decision making is too time-consuming.

Annex Table 2A.1. Budget Revenues from Foreign Economic Activities in Ukraine

	1998		1999		2000		2001		2002	
	UAH m	percent of total tax revenues	UAH m	percent of total tax revenues	UAH m	percent of total tax revenues	UAH m	percent of total tax revenues	UAH m	percent of total tax revenues
A. Excises on imported goods	199	0.6	210.4	0.6	441.3	0.9	446.8	0.8	493.3	0.7
– as percent of total excise tax, %	15.4		19.7		19.7		16.8		12.0	
B. Value added on imported goods and services*	N/A	7.7	N/A	7.8	N/A	6.3	3766.3	6.7	6787.9	9.7
– as percent of total VAT, %							36.4		50.4	
C. Receipts from foreign trade—total	972.7	2.9	1238.1	3.3	1560.9	3.4	1945.6	3.4	2366.2	3.4
– Import Tariffs, <i>including</i>	884.4	2.6	850.1	2.2	1393.2	3.0	1759.8	3.1	2143.7	3.1
<i>import tariff collected from entrepreneurs</i>			738.9	2.0	1153.2	2.5	1467.4	2.6	1824.1	2.6
<i>import tariff collected from physical persons</i>			111.2	0.3	177.6	0.4	160.5	0.3	147.9	0.2
<i>Other import fees</i>							4.6	0.0		
<i>Additional import duty on custom registration of import petroleum products</i>							51.3	0.1		
<i>Import duty on petroleum products, transport and tires</i>							75.9	0.1	137.8	0.2

(continued)

	1998		1999		2000		2001		2002	
	UAH m	percent of total tax revenues	UAH m	percent of total tax revenues	UAH m	percent of total tax revenues	UAH m	percent of total tax revenues	UAH m	percent of total tax revenues
– Export tariff, <i>including</i>			1.5	0.0	5.6	0.0	7.4	0.0	7.8	0.0
<i>export tariff collected from</i>							7.2	0.0	7.7	0.0
<i>entrepreneurs</i>										
– Consular fees	68.1	0.2	92.6	0.2	159.0	0.3	175.4	0.3	213.8	0.3
– Other receipts from foreign economic activity							3.0	0.0		
D. Licenses on right on exports, imports or wholesale distribution of spirits			0.5	0.0	1.9	0.0	0.6	0.0	0.9	0.0
E. Licenses on right on exports, imports of alcohol beverages and tobacco products			4.7	0.0	4.9	0.0	6.0	0.0	7.6	0.0
Total foreign trade revenues, A+B+C+D+E	3782.8	11.2	4186.6	11.1	5312.2	11.4	6165.3	10.9	9655.8	13.8

*Total trade revenues for 1998–2000 were calculated with the assumption that value added receipts on imported goods accounted for 35 percent of total value added receipts.

Source: State Treasury of Ukraine.

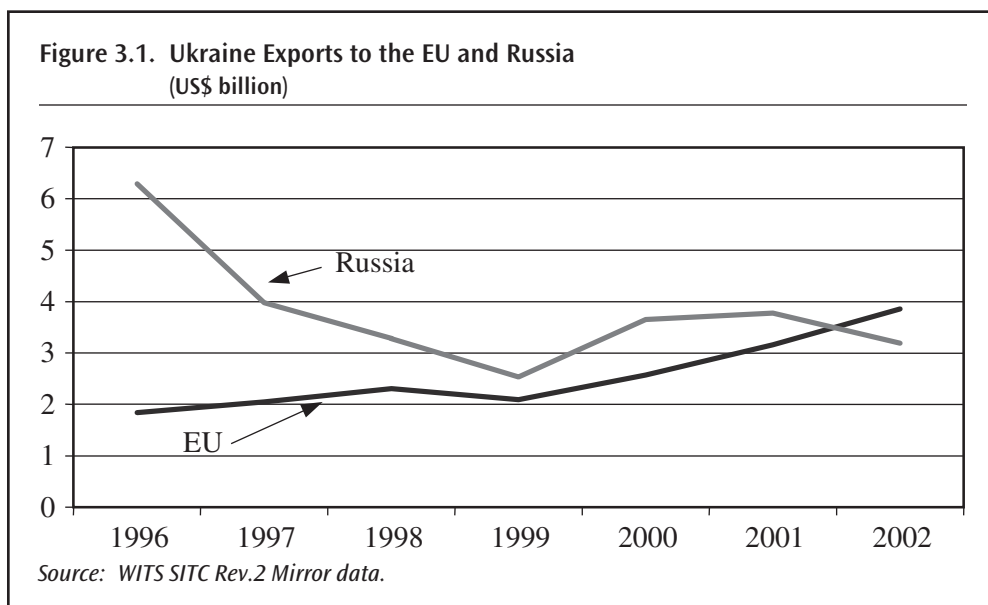
Ukrainian Exports and Access to the EU Market

Overview

This chapter reviews market access issues for Ukraine in the EU market and their implications for Ukrainian trade. The analysis below does not find that EU trade policies are a significant barrier for Ukrainian exports. It concludes that the primary constraints to export expansion in Ukraine are internal. Improvements in the domestic business environment and aggressive actions to attract FDI are identified as priority areas for government actions. Experience shows that domestic reforms and FDI, not trade concessions, are the primary sources of export gains for EU partners. The recent EU expansion provides a window of opportunity to Ukraine to attract FDI as investors look for new low cost production platforms to serve the EU market. The chapter also suggests that the EU reviews the antidumping measures that it maintains against Ukraine.

The major destinations for Ukraine's exports are the European Union (EU) and Russia, which in 2002 accounted for approximately 26 percent and 21 percent, respectively, of total Ukrainian exports. Hence, access to these markets is of critical importance to Ukraine. Given its political and economic ties, Russia has been a priority market for Ukrainian exports. Nevertheless, exports to the EU have been growing while those to Russia have declined so that in 2002, for the first time Ukrainian exports to the EU exceeded those of Russia (see Figure 3.1). In 1998, exports to the EU accounted for only 16 percent of total Ukrainian exports.

However, predictions based on standard and widely applied trade models suggest that the EU market should be much more important for Ukraine than at present. Typical estimates suggest that a 'normal' trading country of Ukraine's economic size and proximity to major markets would export up to 40 percent of its total exports to the EU (Freinkman, Polyakov, and Revenco 2004). It is worth noting that economically Russia is very small



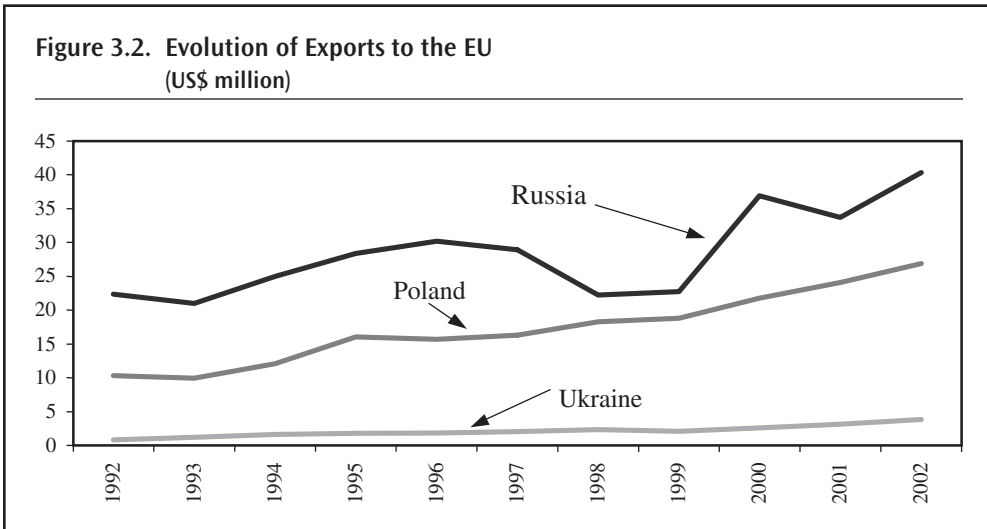
relative to the EU. The mass of GDP in the EU is roughly 40 to 50 times larger than that of Russia. Given that income is a key determinant of the magnitude of trade between countries, this explains why the EU should absorb a much larger share of Ukraine's exports.

The magnitude of the EU share will, in practice, be mitigated by several factors: (i) existence of free trade agreements that Ukraine has signed with other CIS countries; (ii) the strong historical ties with Russia; and (iii) the fact that nominal incomes in the CIS remain seriously underestimated relative to their real purchasing power. Nevertheless, an important issue is to explain why the share of the EU is so low. Does this reflect protection in the EU which is constraining Ukraine's exports? Are there significant remaining barriers to commerce in Ukraine which are limiting trade expansion?

It is interesting that other countries in the region trade much more intensively with the EU. Poland, for example, sends much more than 50 percent of total exports to the EU and the value of Polish exports to the EU is about 6 times higher than that of Ukraine. Over the decade from 1992 and 2002, the growth of Ukrainian exports to the EU was relatively high at around 348 percent compared with the export growth of Poland (160 percent) and Russia (80 percent), albeit that this growth took place from a very low base (Figure 3.2).

It is worth noting that the geographical reorientation of the trade of the Central and Eastern European countries including Poland toward the west and, in particular the EU, took place relatively quickly. By 1993 and 1994, it was not possible to distinguish the trade patterns of most of the CEE countries from those of a 'normal' market economy. Ukraine still appears to differ from these standard trade patterns reflecting that the transition to a market economy is far from complete.

However, what is worth noting is that even in the second part of the 1990s the pace of trade transformation remained much higher in Poland than in Ukraine. As Table 3.1 illustrates, in the period 1996–2002, Poland considerably over-performed Ukraine in terms of additional adjustments of its commodity trade with the EU toward its higher diversification



and complementarity. The level of intra-industry trade also increased considerably, despite from a much higher base than in Ukraine. The primary driver for such changes in trade structure has been foreign investments. Net FDI per capita were about 8 times larger in Poland than in Ukraine during this period. The main conclusion from this comparison is that at the moment Ukraine seriously under-utilizes advantages of its geographic location (proximity to a major market) as a basis for attracting FDI and restructuring its trade toward more diversification and specialization.

Between 1999 and 2002, Ukrainian exports to the EU grew by about 100 percent. However, since 2000 this growth has been driven by two erratic commodities: wheat and mineral oil/fuels. As Figure 3.3 shows, exports to the EU of non-wheat and non-oil products were stagnant during the three years from 2000 to 2002. Thus, recent export growth has been very narrowly based.

Ukraine has seen a small increase in the range of commodities exported. In 1997, Ukraine exported 19 percent of available product lines (as measured at the 6-digit level of the HS), while in 2002 exports were recorded in 26 percent of available lines. However, Ukraine exports a substantially narrower range of products than other comparable countries in

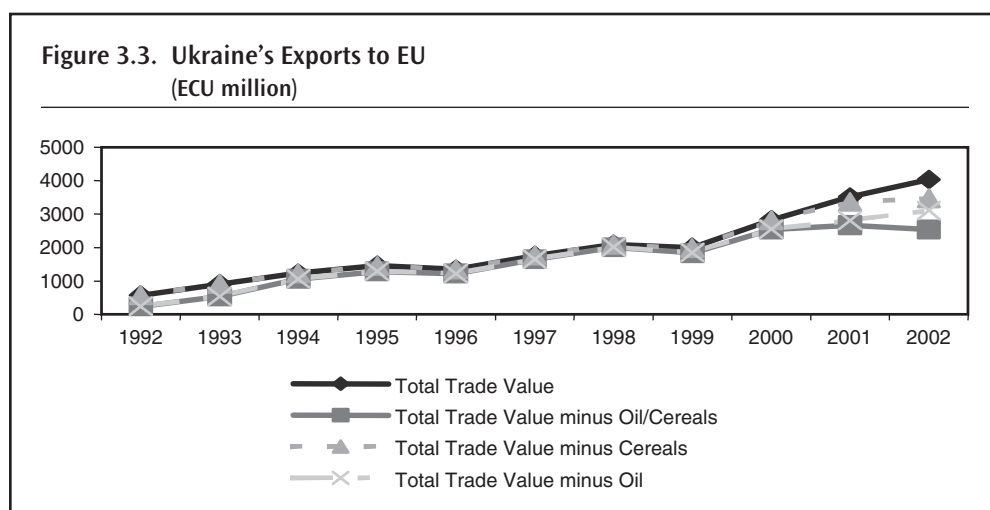
Table 3.1. Structural Characteristics of Ukrainian and Polish Trade with the EU

	Poland	Ukraine
Grubel-Lloyd Index, 2002	54.8	22.5
–Change, 1996–2002	12.9	3.9
Trade complementarity Index, 2002	61.2	33.0
–Change, 1996–2002	11.3	7.8
Export diversification Index, 2002	186	257
–Change, 1996–2002	–11	+9

Source: Chapter 1, staff estimates.

Europe. For example, in 2002, Poland recorded exports to the EU in 67 percent of product lines, while Turkey exported 60 percent of the available products. Hence, lack of export diversification remains a key issue for Ukraine and is likely to be a major constraint during export expansion to the EU.

The heavy dependence of Ukrainian exports to EU on a limited number of sensitive goods was emphasized in 2003 when its wheat exports declined drastically. This occurred for two quite different reasons. First, the wheat harvest in Ukraine in 2003 was substantially lower and Ukraine became a net importer of wheat. Second, at the start of 2003 the EU, after the rapid increase in wheat imports in 2002, changed its regime of import protection of wheat.



Prior to 2003, EU regulation of wheat imports was based upon a variable import levy and one that distinguished among different quality levels (low, medium, and high). Low quality wheat was subject to much higher levels of protection. For example, in 2001 the duty levied on medium quality wheat and spelt varied between 0 and 19.1 Euro per ton according to the month of importation, while the duty on low quality products varied from 4.45 to 49.03 Euro per ton. In 2002, duties were lower reflecting a poorer harvest in the EU that marketing year. The duty levied on low quality wheat and spelt varied from 0 to 20.23 Euro per ton. The duty on medium quality wheat was in the range of 0 to 8.45 Euros per ton.

It appears that in 2002 the surge in wheat from the CIS countries, including Ukraine, although primarily used as animal feed, qualified as medium quality due to its protein content and was therefore subject to low or no import duties. As a result the EU changed its border protection for wheat in a way which discriminates more heavily against CIS producers such as Ukraine. The EU has introduced a tariff quota system, under which a specified amount of all types of wheat can be imported at a relatively low duty (12 Euro per ton), while amounts imported outside of this quota are subject to a much higher duty (95 Euro per ton). These duties are now applied regardless of whether the wheat is classified as low or medium quality. Within the quota there are particular amounts available to the United States and Canada. Information from the European Commission has confirmed that Ukraine is eligible to apply for a share of the general non-allocated quota. However, given that this quota

is low (2.4 million ton), in good agricultural years the new mechanism would mean that most of the wheat imports from Ukraine will be subject to the very high out of quota duty. This entails that in future years, if Ukraine produces similar harvests to those of 2002, its ability to export to the EU will be severely restricted relative to the situation of 2002.

Policies Affecting Ukraine's Access to the EU Market: The GSP

The Generalized System of Preferences (GSP) Scheme

Ukraine is a beneficiary under the EU's Generalized System of Preferences (GSP) scheme, although Ukraine is excluded from preferences for fishery products, iron and steel, grains/seeds/fruits and plants, and fertilizers. Further, a number of agricultural products of particular importance to Ukraine, notably wheat, are entirely excluded from the scheme. The GSP allows for lower duties than the MFN (Most Favored Nation) rates on certain products from particular countries subject to the products meeting the requirements stipulated by the EU; these include the rules of origin which define the degree or nature of processing that must be undertaken by the beneficiary for the product to qualify for preferential access to the EU market. Prior to 2002, products covered by the GSP were classified according to four headings according to the extent of duty reductions: very sensitive, where the duty applicable was 85 percent of the MFN rate; sensitive (70 percent of the MFN rate); semi-sensitive (35 percent of the MFN rate); and non-sensitive, where products entered duty free.

A revised and slightly enhanced scheme was introduced from January 2002 and will apply until the end of December 2004.³⁵ Currently there are only two categories of products covered by the scheme: non-sensitive, for which duties are suspended, and sensitive. For the sensitive products there is now a flat rate reduction of 3.5 percentage points from the MFN rate (although if the percentage reduction under the previous scheme leads to a lower rate then that is maintained under the new scheme). This entails high proportionate reductions for most industrial products, for which the average EU MFN tariff is around 4 percent, but relatively low proportionate reductions for many agricultural products where the average MFN duty is much higher, being at least 20 percent. A major exception is made for textiles and clothing products where a reduction of 20 percent of the MFN rate is applied.³⁶

Specific duties, those in which the duty is related to physical rather than monetary values,³⁷ are reduced by 30 percent (except for ethyl alcohol for which the reduction is 15 percent). However, when duties comprise both ad valorem and specific components, such as those applied to sugar confectionary, the specific duties are not reduced. Typically, the greatest part of the protection of these products is provided by the specific duties. When minimum duties are specified in the EU's Common Customs Code, for example, the EU

35. The Commission has recently decided that, in light of the failure to complete the Doha Round of multilateral trade negotiations, the scheme should be extended for a further year.

36. For clothing this roughly entails a reduction of 2.5 percentage points given an average duty of around 12.5 percent. For textiles, where the average duty is around 7 percent, the GSP preferences entail a reduction of around 1.4 percentage points in the duty.

37. Examples include a duty levied per tonne, a duty related to alcoholic strength, and a duty determined by the milk or sugar content of the product.

duty on beans is 13.6 percent subject to a minimum duty of 1.6 Euro per 100 kg being paid, these no longer apply for products covered under the GSP. Finally, if the tariff reduction provisions result in a preferential duty of 1 percent or less then the duty is suspended. Thus, in general, the preferences offered by the EU are much more generous for industrial goods, with the exception of textiles and clothing, than for agricultural products.

The signed Partnership and Cooperation Agreement (PCA) between Ukraine and the EU did not give Ukraine any additional trade concessions over the GSP. The main PCA-related benefit for Ukraine in the trade area relates to the certainty of MFN access to the EU market for all its exports with the exception of steel. In this respect the EU policy toward Ukraine is different from the pace of integration policy applied by the EU in other parts of Central and Eastern Europe, where many economies basically obtained free access to the EU market relatively early in transition through signed FTAs and association agreements. The European Commission expects that the negotiations on FTA with Ukraine may be launched after its WTO accession.

However, it is important to point out that most of the adjustment in CEE trade toward the EU occurred before their free trade agreements with the EU were implemented, that is, while these countries were still receiving the GSP treatment similar to Ukraine's current treatment. Hence, the lesson for Ukraine is that trade reorientation reflects the depth and commitment to domestic reform rather than the magnitude of preferences in the EU. Trade concessions, which the CEE eventually obtained during the 1990s, largely followed integration of these countries into the EU, but did not trigger it.

A relatively important preference, however, that Ukraine enjoys in its trade relations with the EU relates to the absence in the EU of any quotas on imports of textile and clothing products from Ukraine. All quantitative import restrictions for textile and clothing products from Ukraine were lifted in early 2001 in accordance with the respective sectoral agreement signed with the EU on December 19, 2000. The removal of these quotas was conditioned on Ukraine's cuts in its tariffs for EU textile exports to the maximum rates bound by the EU in the WTO, as well as on Ukraine's commitment to further reductions in its maximum tariff rates between 2001 and 2004 in accordance with the tariff reduction schedule of the EU in the WTO.

Ukraine and the Hierarchy of EU Preferences

Ukraine is competing in the EU market with countries which have secured various types of preferential access to this market. This includes countries that have signed a free trade agreement or customs union with the EU (certain countries in the Mediterranean, Mexico, South Africa, Turkey, EFTA countries), as well as countries that effectively receive duty free access to the EU under association agreements, such as countries in the Balkans. The market access position of Ukraine relative to these countries will depend upon the products and sectors, which are excluded from particular trade agreements, typically certain agricultural products.

The EU's GSP scheme also includes additional preferences for countries implementing ILO codes on basic labor rights. Moldova and Sri Lanka are the only GSP beneficiaries at the moment that have successfully applied for these additional preferences.³⁸ Ukraine has applied

38. Information about countries that have applied for this provision is sketchy, but it is known that Russia has also applied for this provision.

to be treated under this special provision of the GSP. The Commission has not decided to grant this treatment to Ukraine but is still examining the case. If granted, Ukraine, with Moldova and Sri Lanka, would be one of the most preferred partners under the EU's GSP scheme (with the exception of the LDCs who are eligible for duty free access for all products under the Everything But Arms Agreement): it would make Ukraine eligible for an additional 5 percentage point reduction in the duty applied on top of the general 3.5 percentage point reduction in the scheme. In general, even under this preference, the ACP (African, Caribbean, and Pacific countries) will tend to have better access to the EU market than Ukraine because under the Cotonou agreement they have duty free access for almost all industrial products. However, in practice, the differences in market access are likely to be slight for most industrial products if Ukraine were granted access under the special provisions. Given that most import tariffs on industrial goods are below 8.5 percent, an 8.5 percentage points reduction would basically mean duty free export for Ukrainian exporters.³⁹ For a range of agricultural products the EU protection would remain high even with the special provisions preference, but this is also true for ACP countries.

In principle, there are only six countries which pay the MFN rates when exporting to the EU (Australia, New Zealand, Canada, the United States, Japan, and Taiwan). However, in practice, there are countries which are excluded from GSP preferences by sector. Further, the lack of full utilization of preferences by many countries entails that a proportion of exports from GSP beneficiaries, which varies by product, will also pay the MFN tariff.

Trade Coverage and Utilization

We now proceed to discuss the impact of the GSP in 2001 in terms of trade coverage and make an assessment of the implications of the new scheme introduced in 2002. Unfortunately, we are forced to use trade data for 2001 since the EU Commission has decided not to make available data on imports under preferences for a period while it seeks to clarify these data.

There are two key elements to assess the impact of GSP on a country's total exports: (i) the proportion of exports which is eligible for preferences; and (ii) the extent to which exports eligible for preferences are actually granted preferential access. Table 3.2 shows that 36 percent of Ukraine's exports to the EU in 2001 were eligible for GSP. Of the remainder, about 35 percent of exports to the EU are products for which the EU external tariff is zero, while just 30 percent of exports to the EU are products where there is a positive MFN duty but there are no preferences for Ukraine. The latter products include cereals and steel. We return to this issue below.

Table 3.2 also shows that just under 50 percent of exports to the EU, which were eligible for preferences, actually requested those preferences.⁴⁰ This is comparable with the broader international experience with utilization of GSP preferences (Sapir, 1997). This implies that the remaining 50 percent of eligible exports paid the full MFN tariff when they entered the EU. Thus, the potential impact of the GSP for Ukraine is weakened by the underutilization of available preferences. The reasons for this low utilization of preferences are likely to include

39. In practice, the threshold value should be 9.5 percent since under the GSP tariffs of less than one percent are not applied. It should also be noted that certain products excluded from the GSP, such as wine, are also excluded from Cotonou preferences.

40. Data are not available on the amount of these exports which were actually granted preferential access. Hence, the figures here are upper limits on the extent of preferences.

Table 3.2. Ukraine GSP Scheme, 2001

Category	Euro thousand
Total Trade Value	3,495,163
Duty-Free	1,217,687
Value for Eligibility	1,247,796
Value for Preferences Requested	618,482
Value of Preferences Eligible (tariff margin * trade value)	27,739
Vale of Preferences Requested (tariff margin * trade value)	14,980
Share of GSP eligible products in total exports to EU	35.7 percent
Share of products subject to MFN zero duties	34.8 percent
Share of products excluded from preferences	29.5 percent
Utilization rate of preferences	49.6 percent
Value of Preferences requested (share of total export)	0.4 percent

Source: EUROSTAT; UNCTAD TRAINS.

the difficulties in satisfying the rules of origin of the EU scheme and the small margin of preference for certain products relative to the costs of satisfying and proving origin as well as lack of knowledge of the scheme. With regard to the latter, it is worth noting that while the availability of information concerning the GSP and EU preferences has increased in Ukraine and knowledge of the scheme has circulated, the utilization rate changed little between 1998 and 2001 being 47 percent in the earlier year. Nevertheless, the utilization of preferences by Ukraine is similar to that of Russia and to that of the GSP scheme as a whole.

Table 3.4 below shows that the utilization rate of preferences in sectors dominated by large firms (steel and oil products) tends to be higher than that of sectors characterized by smaller firms (clothing, processed fruit and vegetables). This suggests that the costs of complying with the rules of origin are a major factor affecting the low utilization of preferences. This may also provide justification for expanding technical assistance programs to exporters and potential exporters in the sectors that are dominated by SMEs. A more detailed discussion of issues raised by the rules of origin is provided in Box 3.1.

In 2001, the preferences requested under the GSP led to an implicit transfer (the tariff revenue that would have been paid to the EU if these preferences had not been given) of €14 million to Ukraine—equivalent to about 0.4 percent of the total value of Ukrainian exports to the EU. If preferences had been fully exploited then the estimated transfer would be twice higher and have amounted to 0.8 percent of exports to EU. These amounts are calculated (at the tariff line level and then summed) as the difference between the GSP and the MFN tariff multiplied by the amount of exports which entered the EU with preferences. Thus it is assumed that the internal price in the EU is determined by the world price plus the MFN tariff. This will overstate the transfer if imports only come from preferential suppliers. However, for most products only a proportion of imports from preferential suppliers actually receive preferences with the rest paying the MFN tariff. It is also assumed that all of this rent goes to the Ukrainian exporter, whereas in reality some or all of the rent may go to importers in the EU.

Box 3.1. Rules of Origin

There are two elements to the constraining impact of rules of origin. First, there is the nature of the rules themselves, which can be very difficult to meet while remaining competitive on the EU market. For example, the EU rules of origin for clothing stipulate manufacture from yarn. This entails that clothing producers in Ukraine cannot import fabric, except from the EU under the bilateral cumulation that exists under the GSP, and still receive preferential access to the EU. This entails that clothing must be subject to a double transformation in Ukraine—not only does the EU require that the clothing be cut and made-up in the beneficiary country but also that the weaving of the yarn into knitted or woven fabric be undertaken in Ukraine or that such yarn be imported from the EU. A clothing producer in Ukraine, who has established an efficient manufacturing process on the basis of importing fabrics from, say another CIS country, may find it difficult to expand since its product does not qualify for preferences due to the use of non-qualifying fabrics and there may be substantial costs in changing suppliers of fabrics. Ukrainian producers cannot source fabrics from low cost locations such as China and India and receive preferences under the GSP. Such rules of origin, which can force producers to source inputs from expensive domestic or EU sources, undermine the preferences that are being offered.

Second, there is the issue of the costs of providing the necessary documentation to prove origin. If these exceed the margin of preference, then the GSP is redundant. There is limited information on these costs but available studies suggest that the costs of providing the appropriate documentation to prove origin can be around 3 percent of the value of the export shipment for companies in developed countries. These costs are likely to be higher in developing countries.

A provision which can reduce the restrictive effect of rules of origin, is *cumulation*. This allows imported inputs from specific partners to be counted as if they originate in the country concerned. One possibility, which is potentially available to Ukraine, is to request to be included in the so-called Pan-European Area of Cumulation regarding exports to the EU. This would allow Ukraine to use inputs from CEE countries, Turkey and certain Mediterranean countries, and count these as qualifying material, subject to those materials satisfying the relevant EU rules of origin. If other CIS countries were also to be included, Ukrainian producers could use fabrics from the region and still receive preferences to the EU provided that these fabrics satisfy the EU rules of origin for that product, which require manufacture from fibre; imported yarn cannot be used.

Tariff Barriers in the EU

Another way to look at the impact of preferences on access to the EU market is to analyze the average rates of duty that would be applied if Ukraine did not receive preferences with those rates that are actually applied under the current preference scheme. Table 3.3 shows the trade weighted average tariffs on Ukraine's exports to the EU using trade data from 2001 and comparing the GSP scheme of 2001 with that introduced in 2002. We have excluded wheat from our calculations due to the variability of export volumes to the EU over time and due to the complex nature of EU protection, and the difficulty in identifying the duty actually levied. A detailed discussion of wheat is provided below.

Table 3.3 again suggests that EU preferences have very little impact on market access conditions for Ukraine under the current structure of trade and under the existing GSP scheme. The table shows that if Ukrainian exporters had not received any preferences in 2001 and paid the MFN tariff on all products exported to the EU then the average duty levied would have been about 4.2 percent. This duty would have declined to 4.1 percent in 2002 due

Table 3.3. Weighted Average Tariffs on Ukraine's Exports to the EU

	2001	2002
	Ave. Tariff	Ave. Tariff
MFN Rates	4.20 percent	4.09 percent
GSP applied to Ukraine—assuming full utilization of preferences	3.39 percent	2.39 percent
GSP applied to Ukraine—actual utilization of preferences	3.76 percent	3.44 percent
GSP without Ukraine exclusions and assuming full utilization of preferences	3.25 percent	2.21 percent
GSP with additional labor preferences, assuming full utilization of preferences	1.50 percent	1.38 percent

Note: Excluding exports of wheat.

Source: EUROSTAT; UNCTAD TRAINS; Staff estimates.

to the commitments under the Uruguay Round.⁴¹ Under the standard GSP applied to Ukraine, assuming all available preferences were fully utilized, the trade weighted tariff on Ukrainian exports to the EU would have been 3.4 percent. So even with full utilization, the average margin of preference enjoyed by Ukraine would have been less than 1 percentage point. This indicates that just over one-third of Ukraine's current exports to the EU are eligible for preferences and margins of preference for GSP eligible products are often small. In 2002, the enhanced preferences available under the revised scheme would have led to a preferential duty of 2.4 percent, assuming all preferences were utilized and the structure of exports remained the same as in 2001.

Once one takes into account the actual utilization of GSP preferences the trade weighted average tariff levied on Ukrainian exports to the EU in 2001 was almost 3.8 percent in 2001. This average takes account of the fact that only a proportion of the available preferences were actually requested and that duties were levied on those exports which were eligible but did not request preferential access. The changes introduced to the GSP in 2002 reduced the average tariff levied on EU imports from Ukraine to 3.4 percent.

Table 3.3 then shows the impact on the average tariff of two scenarios of enhanced preferences. First, it shows that the inclusion of products covered by the GSP, for which Ukraine is currently denied preferential access (fishery products, iron and steel, grains/seeds/fruits and plants and fertilizers), would have little impact on the average duty levied (less than 0.2 percentage points), even assuming full utilization of these additional preferences. This reflects low levels of current exports of certain products, for example, fishery products, and low duties on other products, such as iron and steel.

Second, as seen from the final row of Table 3.3, if Ukraine were to be granted additional preferences under the special labor clause then there would be a more significant impact on the average tariff levied on EU imports from Ukraine. If preferences were to

41. The standard period for implementation of tariff reductions under the Round was 5 years but for certain products a 10 year period of implementation ending in 2004 was negotiated.

be fully utilized then the average duty in 2002 would have been 1.38 percent, although the duty would have been 3.2 percent with the current level of preference utilization. This scenario reflects to a large extent the treatment of clothing products, where the labor preferences reduce relatively high MFN duties by an additional 20 percent, but where preference utilization is very low at 20 percent.

We now turn to a more detailed look at key sectors in Ukraine's exports to the EU and the preferences that are available. This shows the importance of clothing to these scenarios but also that one must take into account the amount of outward processing trade in this sector.

The Impact of EU Tariff Preferences on Key Sectors

EU protection and preferences for key products of Ukrainian exports to the EU is presented in Table 3.4. Within the agricultural sector, there are two key preference receiving sectors: animal or vegetable oils (HS 15) and processed vegetable and fruits (HS 20). These two sectors accounted for 91 percent of agricultural products eligible for preferences in 2001, but only 8 percent of Ukrainian agricultural exports to the EU. Hence, at the moment preferences play a very minor role in influencing Ukraine's exports to the EU. This reflects in part that certain agricultural products exported by Ukraine are subject to zero MFN duties, but more importantly that key products exported by Ukraine are excluded from preferences.

In 2001 and 2002, the key product exported to the EU that was excluded from preferences was wheat. Exports of this product fell off in 2003. Nevertheless, as we shall show below there are a number of agricultural products that Ukraine exports elsewhere, such as meat and dairy products, which are subject to extremely high EU barriers without preferences. It is worth noting that 62.1 percent of animal or vegetable oils exports requested preferences to which they were eligible. In contrast the proportion of exports of processed vegetable and fruits, which requested preferences, was only 28 percent. This could reflect difficulties raised by the rules of origin and that processors may need to partly source fruit and vegetables from other countries to ensure consistent supply and effective utilization of equipment.

In manufacturing, there are three key preference receiving sectors: clothing (HS 62), steel (HS 72), and oil (HS 27). These sectors accounted for 47 percent of exports eligible for preferences and 55 percent of total exports to the EU. The proportion of oil products requesting preferences was almost 100 percent in 2001. The utilization rate of steel preferences is about 70 percent, while the utilization rate of clothing is relatively low at only 20 percent. The utilization rate of steel is relatively high, but the 30 percent of exports not utilizing the available preferences may reflect relatively low preference margins (often less than 1 percent) and the rules of origin requirements for certain steel products, which require production of finished products from primary forms of steel.

For clothing, it is worth noting that more than 90 percent of all clothing exports to the EU enter the EU under the Outward Processing Trade (OPT) scheme. For such processed exports to the EU it is only the value-added that is subject to EU import duties and therefore to preferences and so the impact of preferences on the export price will be very small. If we roughly assume that 20 percent of the recorded value of these products exported to the EU is value added in Ukraine then the 20 percent GSP reduction on duties on clothing products, which may be as much as 12 percent, reduces the price of a product processed in Ukraine by less than 1 percent relative to the situation of the full tariff being applied to the

Table 3.4. Key Sectors in Ukraine's Exports to the EU and Tariff Preferences								
	Agriculture				Manufacture			
	Total	Cereals (HS 10)	Animal or Veg. oils (HS 15)	Processed Veg. & Fruits (HS 20)	Total	Oil (HS 27)	Clothing (HS 62)	Steel (HS 72)
Trade Data 2001 (€ thousands)								
Total Exports to EU	456,331	144,335	23,153	14,795	3,038,832	695,246	343,027	618,863
Outward Processing Trade	3	0	0	0	333,856	0	322,168	0
Outward Processing Trade (percent)	0.0	0.0	0.0	0.0	11.0	0.0	93.9	0.0
Pref's Eligible	40,453	0	22,198	14,634	1,207,343	105,858	342,749	119,416
Pref's Requested	19,570	0	13,779	4,122	598,911	103,599	69,385	82,507
Share Requesting Preferences (percent)	48.4	0.0	62.1	28.2	49.6	97.9	20.2	69.1
MFN & GSP Rates 2001								
Average MFN Tariffs (percent)	33.0	81.0	6.1	22.2	3.5	2.4	12.2	1.2
Average GSP Tariff (percent)	32.7	...	5.2	18.6	2.7	1.9	10.4	0.9
Average tariff with actual preference utilization (percent)	32.9	...	5.5	19.2	3.1	1.9	11.9	1.0

Note: The calculated duty for cereals assumes that all exports were subject to the maximum duty for low quality wheat.

Source: EUROSTAT; UNCTAD TRAINS; Staff estimates.

value added in Ukraine. This may be an insufficient incentive to request preferential access and compile the necessary paperwork to satisfy the rules of origin, even though by definition outward processing confers origin to Ukraine through the use of EU originating fabrics. One way for firms to move up the value chain in the modern textile and clothing sector is to produce clothing from own designs. This typically requires companies to be able to flexibly source fabrics themselves, but this is severely constrained by the current GSP rules

of origin. The current tariff preferences for Ukraine would reduce the price of a fully sourced clothing product by around 2.2 percent.

Table 3.4 indicates that the total weighted agricultural duties are quite high (33 percent for MFN) relative to specific sector levels. This reflects the way that we have treated cereals, for which we have applied the maximum duty levied in 2001. The *ad valorem* equivalent of the specific duty for this product was calculated to be 81 percent, leading to the high overall tariff average for the agricultural sector. However, there is a high degree of uncertainty as to how exports from Ukraine were actually classified and what amount of duty would have been levied on this product. It is for these reasons that we excluded cereals from the calculations of average tariffs presented earlier. Clearly if this exercise were to be repeated once data for 2003 becomes available, the average duty on agricultural products would be considerably lower due to the absence of exports to the EU of cereals in that year. It is to cereals that we now turn with a slightly more detailed analysis.

Key Specific Products

Cereals (HS 10). Ukraine was the biggest exporter of this product to the EU in 2002. Its share of total EU imports was 19 percent, followed by USA (16.5 percent), Russia (15.4 percent), and Canada (7.2 percent). Ukraine exports one particular product in this sector, which is spelt, common wheat and meslin (excl. seed) (HS 10019099); about 86 percent of its total exports of this sector are to the EU. For this particular product, the share of Ukraine in total EU imports was about 30 percent, while the shares of Russia, US, and Canada, the key competitors for this product, were around 24 percent, 12 percent, and 10 percent respectively. Table 3.5 shows the evolution of exports to the EU from these suppliers. However, it appears that the products produced by the USA and Canada are deemed to be of much higher quality than those of the CIS countries. The trade value of exports of this product from Ukraine has been increasing in recent years. However, as noted earlier, exports were curtailed in 2003.

Table 3.6 provides a comparison of the unit values (ECU/ton) of the major suppliers for this product to EU market in 2002. This is relevant because EU protection takes the form of a specific duty, the incidence of which will tend to fall heaviest on low value suppliers. In 2002, Ukraine exported this particular product at the lowest unit value, around 108.9 (ECU/TON). This is indicative of the low quality of spelt from Ukraine. Nevertheless, the unit value increases at an average annual rate of 4 percent between 1998 and 2002, suggesting a movement toward higher quality. When compared with the US, Canada, and the average of all EU imports, the unit value of Ukraine's exports has been increasing at a faster rate. Nevertheless, the low unit value of Ukraine's exports entails that the tariff equivalent of the EU duty will be much higher for Ukraine than for other suppliers, and in this sense the choice of a specific duty by the EU discriminates against Ukraine. This will be important if Ukraine's exports recover in future years as it is expected that Ukraine's future tariff quota for this product, which allows lower duty access for a specific quantity, is likely to be low.

Steel (HS 72). Steel is a special sector in EU trade policy since imports from three CIS countries (Kazakhstan, Russia, and Ukraine) are subject to quantitative restrictions. No

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
EXTRA-EU	144,738	139,312	161,820	239,597	204,652	278,410	377,805	397,170	437,322	695,376	1,605,047
Ukraine	0	0	0	0	5	0	2,302	4,843	3,571	133,333	488,688
Russia	0	0	0	300	0	1	2,170	3,854	15	67,297	392,282
USA	55,931	41,024	35,569	111,592	82,653	99,208	162,015	154,200	179,450	197,962	199,117
Canada	83,147	67,040	63,513	67,122	88,287	117,950	137,628	173,794	195,940	169,029	153,847

Source: EUROSTAT; UNCTAD TRAINS; Staff estimates.

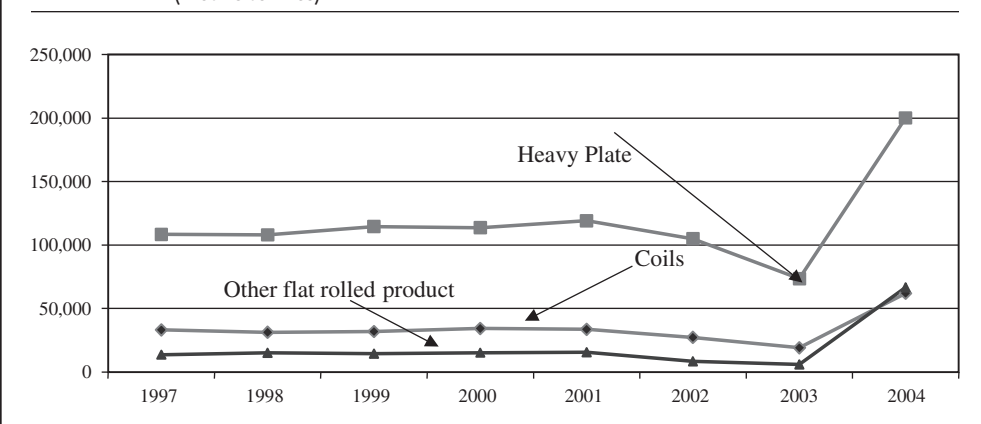
Table 3.6. Unit Value and Tariffs on HS 10019099 Spelt Exports to the EU
(US\$ per ton)

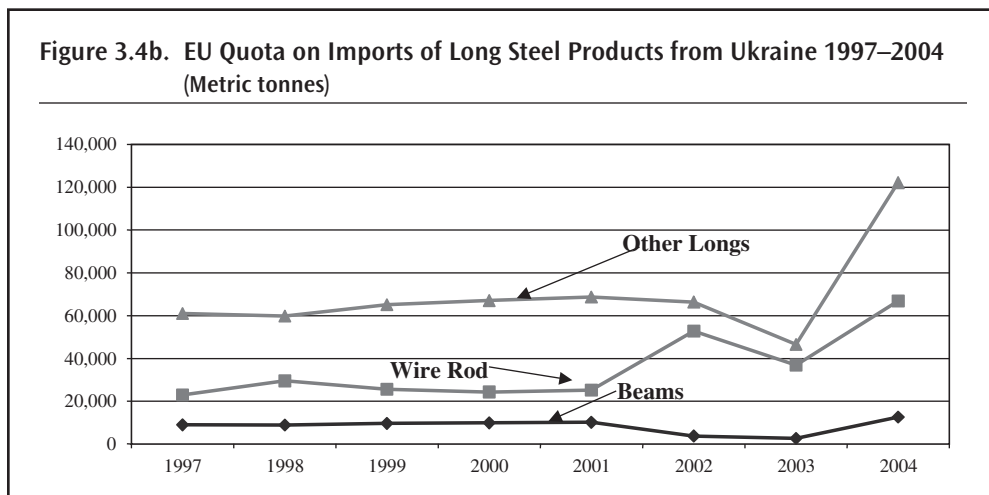
Country	1998	1999	2000	2001	2002	Average annual change (percent)	2002 Average tariff (percent)
EXTRA-EUR	153.2	156.7	176.7	150.9	124.3	-5	76
Ukraine	94.1	99.3	171.4	116.7	108.9	4	87
Russia	80.2	105.0	166.7	119.5	110.2	8	86
USA	159.6	156.4	172.4	169.7	176.8	3	54
Canada	174.6	170.9	183.0	193.0	191.7	2	50
Bulgaria	111.7	110.6	115.7	139.3	109.0	-1	87
Hungary	100.3	112.4	156.0	127.6	124.2	5	76
Kazakhstan	121.5	154.3	166.4	178.9	162.5	8	58
Romania	105.5	127.8	231.7	148.0	123.4	4	77

Source: EUROSTAT; UNCTAD TRAINS; Staff estimates.

other suppliers of steel are subject to such measures. Such measures are inconsistent with WTO provisions and would have to be removed once Ukraine joins the WTO. In the period 2001–03, quota levels have been substantially reduced (see Figures 3.4a and 3.4b). This reflects the EU response to the imposition of an export tax in Ukraine on scrap metal, which the EU views as contravening the Partnership and Cooperation Agreement. Export restrictions on scrap metal are a sensitive issue because scrap is a major input into the production of finished steel products. Export restrictions on scrap metal reduce the price of scrap metal in the domestic market and, hence, reduce the cost of steel manufacture.

Figure 3.4a. EU Quota on Imports of Flat-Rolled Steel Products from Ukraine
1997–2004
(Metric tonnes)





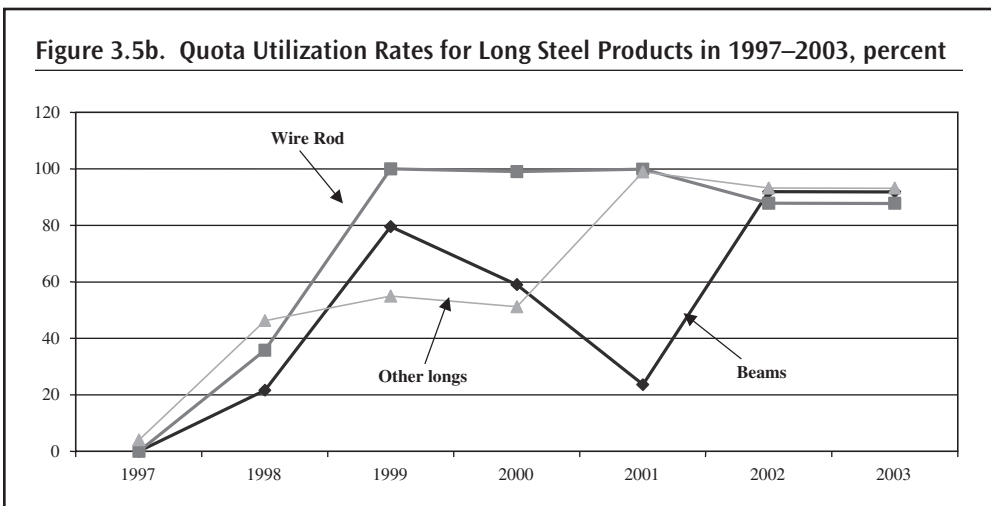
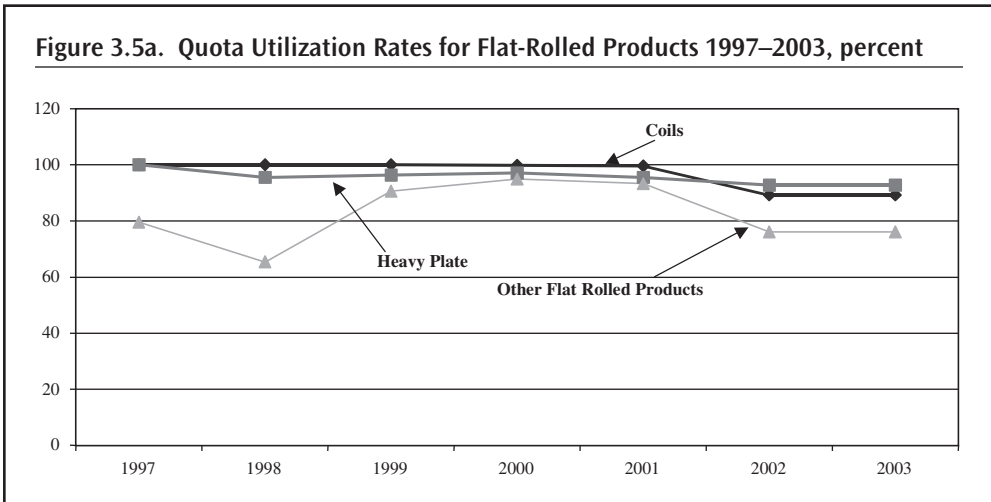
However, as follows from the standard economic analysis, export taxes reduce Ukraine's overall welfare (see the discussion in Chapter 2). Moreover, given that Ukraine is a significant exporter of scrap, such restrictions raise the price of scrap in overseas markets, leading to higher production costs.

The export taxation of scrap metal is an inefficient resource tax, although it does not appear that it directly violates any specific WTO provisions. Export prohibitions and quantitative export restrictions, which were used by Ukraine before the introduction of export tax, are inconsistent with Article XI of the GATT, but there is no apparent discipline on export taxes even though such policies reduce economic welfare in other countries.

In June of 2004, after intensive negotiations, and taking into account the EU enlargement, the EU took the decision to considerably increase the 2004 steel quotas for all three FSU countries. Relative to 2002, Ukraine's quota increased by 137 percent to reach 607 million tons. Quotas for Russia and Kazakhstan were increased by 32 and 25 percent respectively. The key issue now for Ukraine is whether Ukraine would be better off removing the export tax on scrap metal to improve chances for additional growth of quota allocations by the EU in the future and also to encourage a more positive EU attitude to Ukraine's WTO bid.

Figures 3.5a and 3.5b, show that in the past these quotas were highly utilized, suggesting that they were binding on Ukrainian exports to the EU.⁴² For all quota lines, with the exception of other flat-rolled products, the utilization rate exceeds 80 percent and for three of the product groups more than 90 percent of the quota was utilized in 2002 and 2003. This

42. Quotas can be binding on trade at levels below 100 percent utilization due to issues of uncertainty over if and when the quota may be exceeded. There is no hard and true method of assessing whether quotas are binding or not. The usual approach is to make a judgment on the extent to which the quota is filled. A high level of quota utilization is taken to indicate that the quota is constraining trade flows, while a low level of quota utilization is seen as reflecting a lack of binding in that category. The removal of non-binding quotas will have no significant impact upon trade, production, and employment. Binding quotas are typically defined as those where the amount of imports exceeds 80 percent of the quota level.



suggests that the liberalization of these quotas would have a significant impact on the exports of steel products from Ukraine to the EU.⁴³

A separate important issue with regard to steel quotas concerns the recent EU enlargement. There was clearly a need for the quotas to be renegotiated on the basis of the market of all 25 EU members. In 2002, Ukrainian exports of total iron and steel products to the EU accession countries in central and eastern Europe amounted to 40 percent of the value of Ukraine's exports of these products to the EU-15 members. Clearly, this justified the need

43. The EU response to the imposition of export taxes by Ukraine was to define a combined quota for 2002 and 2003. Subtracting the earlier defined quota for 2002 gives us the 2003 quota shown in the figures, which is the same as that defined later for 2004. However, separate utilization rates for 2002 and 2003 are not available, so we apply the overall utilization rate for 2002/2003 in each year.

for a substantial increase in the size of the quotas after the EU enlargement. Simply maintaining current quota levels would be highly restrictive. Fortunately, after protracted negotiations the EU agreed to increase the post-enlargement quotas (See also Chapter 4 for additional details).

Finally, it is worth noting that quota constrained Ukrainian products do not comprise a substantial proportion of EU imports. In 2003, EU-15 imports from Ukraine of coils amounted to less than 0.8 percent of external EU imports, heavy plate 6.75 percent, other flat-rolled products 0.2 percent, beams 0.44 percent, wire rod 3.26 percent, and other longs 2.72 percent. It is difficult to imagine how even substantial increases in imports of these products from Ukraine could cause substantial harm to EU producers. It is also likely that the quality of steel products exported from Ukraine entails that they are not competing directly with products produced in the EU. In this case, the impact of these quotas may be primarily to divert trade away from Ukraine to other non-EU suppliers of similar quality steel. This is an issue that would be worthy of more detailed study in the context of a review by the EU of the impact and rationale for these quotas.

EU Protection and the Structure of Ukraine's Exports

It is, of course, likely that the current structure of exports from Ukraine leads to a distorted view of the impact of EU protection since high tariffs may be suppressing trade in precisely those products in which Ukraine has a comparative advantage. To try and shed some light on this issue we look at the structure of products exported by Ukraine to Russia, where for the majority of products there are no tariff restrictions on market access, at least on paper, and ask what would be the average tariff on this bundle of goods if it were exported to the EU? The key issue here revolves around exports of agricultural products. In 2002, agricultural products comprised almost 20 percent of Ukraine's exports to Russia, and also 20 percent of exports to the EU. However, once cereals are excluded, the share of agricultural exports to the EU falls to 6 percent, but the share in exports to Russia remains little changed at 19 percent.

More generally, the value of the similarity index between exports to Russia and exports to the EU (calculated at the 6-digit level of the HS) is 13 percent, which suggests a very low degree of overlap between the structure of exports to Russia and that of exports to the EU. Is EU protection the main reason behind this or are there other important factors, such as the differences in income levels, difficulties for Ukraine in satisfying EU food safety requirements, the increasing role of Ukraine in processing EU inputs (concentrated on the clothing sector at present)?

Table 3.7 shows a very tentative estimate of the average tariff that would be levied in the EU on the products that Ukraine currently exports to Russia.⁴⁴ The predicted trade weighted average MFN tariff that would be applied in the EU to Ukraine's exports to Russia is around

44. Unfortunately, this exercise is not straightforward for the following reasons. Firstly, the data on exports to Russia are not available at the same level of detail as the EU tariff schedule. The trade data for exports to Russia are at the 6 digit level of the HS, while EU tariffs are defined at the 8 digit. Hence we are obliged to use average tariffs at the 6 digit level. Secondly, a number of the duties in the EU on key products of interest to Ukraine are non-ad valorem duties, usually specific duties, such as the duty of 41.9 Euro per 100 kg for certain sugar products. To calculate average tariffs these tariffs based on quantity have to

Table 3.7. Application of EU Tariffs to Products that Ukraine Exported to Russia in 2002 (percent)

Trade weighted MFN Tariff	10.4
Trade Weighted MFN Tariff excluding Dairy Products	7.1
Trade Weighted MFN Tariff excluding Dairy Products and Sugar	6.8
Trade Weighted MFN Tariff excluding Dairy Products, Sugar and Meat	3.8

Source: EUROSTAT; UNCTAD TRAINS; Staff estimates.

10 percent, which is considerably higher than the average EU MFN tariff on EU imports from Ukraine (excluding cereals) of around 4 percent. The next rows of the table show that this high average tariff is driven mainly by two sectors—dairy products and meat. Once these and sugar are excluded, the average tariff on the structure of products exported to Russia is less than that on the structure of Ukraine's current exports to the EU. The important issue is, if the high EU duties on these products were to be reduced, would this lead to a sudden increase in agricultural exports which would rapidly increase the share of the EU in Ukraine's exports?

In this context it is worth looking at the duties on these products in the EU and identifying the key competitors for Ukraine. The precise magnitude of duties on meat, dairy, and sugar products in the EU are difficult to ascertain since all of the duties involves a non-ad valorem component. For example, the duty on meat products exported by Ukraine is 12.8 percent plus 176.8 Euro per 100 kg. Nevertheless, it is clear that the level of protection is very high since EU internal prices far exceed world prices for these products. The main competitors for Ukraine in the EU markets currently appear to be Latin American countries and New Zealand for meat products, Australia, New Zealand, Canada, and certain central and eastern European countries for dairy products, and central and eastern European countries for sugar. The level of protection is intrinsically linked to the EU policies of support for these sectors and significant improvement in market access for Ukraine will be dependent upon a successful multilateral agreement at the WTO that may reduce external protection on these products. At the same time, high import duties on meat and dairy are not the only constraint for Ukrainian exports of these products to the EU. Another major barrier relates to the lack of adequate certification of Ukrainian laboratories, which at the moment effectively blocks any export to the EU of products of animal origin that are designated for human consumption (except for honey). Given the experience of the new EU members, obtaining such certification may require considerable efforts. Yet, without addressing this issue, Ukraine would not be able to exploit any improvements in EU market access that are likely to emerge in the medium term. This is another reason why accelerating upgrades in the certification system should be among the government's top priorities.

be converted into ad valorem equivalents. But this depends upon the value per unit of quantity. The protective impact of specific duties falls particularly heavily on low value low quality products and becomes less restrictive the higher the unit value of the product. In this exercise we use the conversions provide by UNCTAD based on average unit values into the EU. The unit value provides a very rough indication of quality. But will Ukraine be able to export to the EU products of the same unit value/quality as currently being exported to Russia? For these reasons the measures of average tariffs reported below should be subject to a high degree of caution.

This exercise leads to two key interrelated conclusions. Firstly, high levels of EU protection on dairy and meat products could be an important factor hampering the expansion of Ukraine's exports to the EU. Secondly, it is difficult to conclude that protection in the EU on products of interest to Ukraine, while important, can be the only factor constraining the expansion of Ukrainian exports to the EU. A simple back of the envelope calculation shows that it is not feasible that EU protection has been the only or major factor constraining substantial reorientation of exports toward the EU. For example, following from Table 3.6, if tariffs on products of interest to Ukraine were reduced such that the average tariff declined from 10 percent to 4 percent, then given the extremely bold assumption of a price elasticity of demand of 5 for Ukrainian products, which is very high relative to standard estimates of such elasticities, and it likely to lead to overestimation of the impact of EU protectionism, and the equally bold assumption of fully responsive supply in Ukraine, then exports to the EU would increase by just under 27 percent. This in turn would imply that the share of exports to the EU in total exports would increase from the current level of around 26 percent to 31 percent. Given that gravity models suggest that under normal trade conditions the share of the EU in Ukrainian exports would be much higher than this, it is apparent that, while reducing EU tariff barriers could contribute to the increasing importance of the EU as a market for Ukrainian products, other more important factors must also be addressed.

It is also worth remembering that the share of the EU in Polish exports quickly reached levels comparable to that of EU members such as Spain even in the face of high EU agricultural protectionism. The early EU agreements did little to reduce EU agricultural duties on products from the Central and Eastern European countries in the 1990s. The biggest contribution to the expansion of Polish exports to the EU came from the expansion of manufactured exports.

EU Antidumping Measures against Ukraine

Ukrainian exports to the EU, like those of any other external trading partner, with the exception of the EEA countries, may be subject to the so-called commercial defense instruments of antidumping and countervailing measures. In practice the EU very rarely implements countervailing. Antidumping policies are more widely used by the EU. Table 3.8 lists the 8 products (covering 25 tariff lines) exported by Ukraine to the EU in 2002, which are currently subject to antidumping measures.⁴⁵

Table 3.8 leads to three broad conclusions. Firstly, products exported by Ukraine, which are subject to antidumping measures or investigations in the EU, typically comprise a small share of extra-EU imports of the products concerned. The average share of Ukraine in extra-EU imports across the products now subject to antidumping measures was 2.7 percent in 2002. This is below the *de minimis* level of 3 percent specified by the Agreement on Implementation of Article VI of the GATT established under the Uruguay Round of trade negotiations. The *de minimis* rule states that imports from a particular country that are perceived to be dumped shall be deemed negligible if they do not exceed 3 percent of imports of the like product in the importing country. Of course what matters in the determination of dumping is the level of imports in the period preceding the investigation. However, WTO rules per-

45. Anti-dumping measures on Ferro-Silico-Manganese and Potassium Permanganate expired in 2003. As yet, no action on anti-dumping investigations of these products have commenced.

Table 3.8. Ukrainian Products Subject to Anti-Dumping Measures in the EU

Affected Products	Tariff code	EU Imports from Ukraine 2002 (ECU'000)	Extra-EU Imports 2002 (ECU'000)	Share of Ukraine in Extra-EU Imports	Anti-Dumping Duty
Ammonium nitrate	31023090	340	113,220	0.30%	33.25 EUR / 1000 kg (26.8%)
	31024090	0	1,672	0.00%	33.25 EUR / 1000 kg (30.9%)
<i>Ferro-silico-manganese*</i>	<i>72023000</i>	<i>37,620</i>	<i>253,979</i>	<i>14.81%</i>	<i>150 EUR / 1000 kg (29.8%)</i>
	31042010	0	291	0.00%	30.84 EUR / tonne KCl
	31042050	0	184,574	0.00%	46.65 EUR / tonne KCl
	31042090	0	12,807	0.00%	48.19 EUR / tonne KCl
Potassium chloride	31052010	0	187,539	0.00%	46.65 EUR / tonne KCl
	31052090	0	41,014	0.00%	46.65 EUR / tonne KCl
	31056090	0	8,014	0.00%	46.65 EUR / tonne KCl
	31059091	0	20,752	0.00%	46.65 EUR / tonne KCl
	31059099	0	7,941	0.00%	46.65 EUR / tonne KCl
<i>Potassium permanganate*</i>	<i>28416100</i>	<i>0</i>	<i>3,248</i>	<i>0.00%</i>	<i>36.20%</i>
	73041010	1,933	37,004	5.22%	38.50%
	73041030	4,321	41,088	10.52%	38.50%
Seamless pipes and tubes of non-alloy steel	73043199	776	14,442	5.37%	38.50%
	73043991	1,670	77,595	2.15%	38.50%
	73043993	3,219	53,607	6.01%	38.50%
Silicon carbide	28492000	158	106,655	0.15%	24%
Solutions of urea & ammonium nitrate	31028000	0	99,303	0.00%	26.17 EUR / 1000 kg (30.9%)
	73121082	150	25,424	0.59%	51.80%
	73121084	47	26,764	0.18%	51.80%
Steel ropes & cables	73121086	14	17,382	0.08%	51.80%
	73121088	0	4,143	0.00%	51.80%
	73121099	21	13,677	0.16%	51.80%

(continued)

Table 3.8. Ukrainian Products Subject to Anti-Dumping Measures in the EU (Continued)

Affected Products	Tariff code	EU Imports			Anti-Dumping Duty
		from Ukraine 2002 (ECU'000)	Extra-EU Imports 2002 (ECU'000)	Share of Ukraine in Extra-EU Imports	
Urea	31021010	0	379,301	0.00%	16.84 EUR / 1000 kg (13.1%)
	31021090	0	4,335	0.00%	16.84 EUR / 1000 kg (12.1%)
	73063051	0	33,193	0.00%	44.10%
Welded tubes and pipes	73063059	6	30,384	0.02%	44.10%
	73063071	0	22,987	0.00%	44.10%
	73063078	18	34,403	0.05%	44.10%
Sub-Total		50,294	1,856,737	2.71%	
Total Ukraine's Exports to EU		4,037,181	968,212,075		
Share (%)		1.25%	0.19%		

Note:

The mark "*" indicates that anti-dumping measures for the products expired in 2003.

1. The highest anti-dumping duties if more than one rate is taken here.

2. A bracket indicates ad valorem equivalents (AVEs) if the conversion of specific duties into AVEs is feasible. The total value and quantity of imports from 2002 EU extra-trading partners is used to derive AVEs.

Source: EUROSTAT; TARIC.

mit the importing country to aggregate countries together even if individually they account for less than 3 percent of imports, and proceed with antidumping duties if collectively they account for more than 7 percent of imports. This provision allows importers such as the EU to continue targeting small suppliers of the EU market in antidumping investigations. However, for many of the products currently subject to measures it is difficult to imagine how a relatively insignificant supplier such as Ukraine could be undermining competitive conditions in the EU and be causing substantial harm to domestic industry. Given the enlargement of the EU and the importance of the acceding countries as a market for Ukrainian products and the fact that these duties will be newly applied by the new members, a review of the antidumping measures against Ukrainian products is justified. In particular, the EU should consider carefully the impact on countries such as Ukraine of its current practice of grouping negligible suppliers together as a tool of bringing anti-dumping investigations in line with WTO rules.

Secondly, the products subject to measures comprise a relatively small share (1.3 percent) of total exports from Ukraine to the EU. It is also worth noting the disparate evolution of products subject to antidumping measures. For certain products, exports to the EU have ceased or declined dramatically after antidumping measures were imposed, for example, silicon carbide and potassium permanganate. Exports of other products have grown strongly even after antidumping measures were imposed. For example, exports

of ferro-silico-manganese have increased three-fold since 1997. Thus, although antidumping duties are an important obstacle to trade that undoubtedly have spill-over effects in closely related sectors and which most economists believe to be unwarranted, it would not appear that they have a major constraining impact upon aggregate exports from the Ukraine to the EU.

Thirdly, the average level of antidumping duties imposed by the EU is rather high (in a range of 25–50 per cent), and this is likely to affect individual Ukrainian exporters.

The Impact of EU Enlargement

With regard to the impact of EU enlargement a key distinction must be made between the outlook for industrial products and the prospects for exports of agricultural products. For industrial products the impact of trade policy changes following enlargement of the EU will tend to be positive for CIS countries. There will be no significant change in relative market access to the current EU market since all tariff and non-tariff barriers on imports from the CEE countries have already been removed. A number of antidumping duties currently imposed by the EU on imports from the CEE countries will have to be removed. In 2002 there were 22 different antidumping measures against products from the CEE. Of these 10 were applied to steel products, 4 related to hardboard, 3 to baler twine and the remaining 5 measures applied to urea and ammonia products. However, as in the case of Ukraine, these measures affect only a very small proportion of the exports of the CEE to the EU. Hence, while their removal may have implications for Ukrainian producers of the product concerned, the broader impact on trade is likely to be limited.

In four instances, in which antidumping measures were in place at the end of 2002, both CEE countries and Ukraine were involved. Since the measures will no longer be applied to the CEE countries after accession, there may be a case for these decisions to be reviewed. There will be additional justification for doing this, as is likely, if imports from Ukraine are below the *de minimis* level defined by the WTO (of 3 percent of the total volume of imports) and the case was only consistent with WTO rules with the inclusion of imports from the CEE. It could be argued that in any such review the *de minimis* level should be in relation to the total imports of the new expanded EU of 25 members.

Market access to the CEE for Ukrainian exporters, on the other hand, will on average improve since tariffs in the largest markets, Poland and Hungary, will decline as these countries implement the common external tariff and adopt the EU's GSP. For example, the Polish tariff on clothing products is currently 18 percent. This will fall to 12 percent on accession and the tariff applicable to Ukraine will decline to 9.6 percent as GSP preferences are applied. In the case of Hungary, duties on bars and rods of steel will fall from 4.5 percent to zero when the EU common external tariff is applied. A recent estimate suggests that enlargement will increase Ukraine's exports to the four largest acceding CEE countries by as much as US\$15 million each year (Kawecka-Wyrzykowska and Rosati, 2002), an increase of around 8 percent from the current level of exports to these countries. There may also be a shift in processing activity to lower cost CIS members as labor costs in the CEE increase and as they adopt EU outward processing regulations, which may encourage clothing producers in the CEE countries to outsource the making up stage of the production process to low labor cost, but proximate locations, such as Ukraine.

With regard to non-border policies the new EU members will have access to the Single European Market (for some sectors, certain countries do so already). The impact will vary sector by sector according to the importance of technical barriers to trade and government procurement decisions, the key areas where market access is influenced by the Single Market. In sectors where technical regulations are important, CEE exporters will have improved access to the EU market. However, in the main these are the sectors⁴⁶ where the CIS countries, through lack of FDI and technological capabilities, are not effectively competing at present, and where the currently applied GOST regulations in the CIS are a key constraint upon export expansion to the EU.

Hence, the direct impact on competition for products currently exported by Ukraine to the EU will probably be muted.⁴⁷ Nevertheless, as the CEE countries will now have to apply EU standards this may constrain the access of Ukrainian exports to their markets, which formerly applied standards more similar to those in Ukraine, although the adoption of EU standards has been a process that commenced in the mid-1990s. The act of accession itself will thus not have a significant impact on trade. Further, after enlargement the EU will comprise a market of well over 400 million people governed by harmonized regulations for a large array of products. Only if Ukraine were to upgrade its system of standards and conformity assessment and rigorously adopt EU and international standards, would its producers have adequate access to this enormous market.

For agricultural products it is very difficult to derive precisely the magnitude or even an indication of any potential impact on Ukraine's exports. Relative market access conditions may worsen and there may be trade diversion away from Ukraine and other agricultural exporting CIS countries, as the CEE countries, especially Poland, are given substantial preferences in the EU. It is clear, however, that a Doha round, which leads to a major reduction in EU border protection in agriculture, would ultimately help to alleviate any negative impact in this area. The impact of enlargement on Ukraine could also be limited if the preferences under the GSP were further enhanced in the new scheme that should be introduced in 2005. On the other hand, duties in certain of the EU-10 were higher than EU duties and these decreased after accession.

Agricultural producers in the CEE will also become eligible for EU farm subsidies after enlargement. This will make it even harder for Ukrainian suppliers to compete in the enlarged EU market. Prices for most agricultural products are lower in the CEE than in the EU suggesting that there will be a significant increase in production in the CEE countries once the policies that generate the higher prices are applied there. These higher prices will lead to a decline in demand for many agricultural products in the new EU members. Production surpluses in the CEE are likely to arise. Part of these will be absorbed by the markets of the existing EU members, while the rest will be exported with subsidies or removed from the market. Thus, there is a possibility that after the enlargement Ukraine may face additional competition from additional exports of agricultural products by the EU-10 to the third countries, in particular to Russia (Kobuta 2004). However, the ability of the EU

46. The key industrial sectors affected by technical barriers to trade are machinery and electrical equipment, transport equipments, chemicals, and processed foodstuffs.

47. This conclusion is consistent with the earlier analysis by Francois and Roubout (2001), who suggested that potential overall effects of the EU enlargement on third countries, including the FSU, would be small.

to expand subsidized exports is limited by the commitments made under the Uruguay Round Agreement. The export subsidy value commitments of the CEE countries amount to about 9 percent of those of the EU. Hence a large scale expansion of subsidized EU exports after enlargement will not be possible without violating WTO commitments.

Overall, the short-term effect of EU enlargement on Ukraine's trade is expected to be modestly positive. In addition, Ukraine should expect dynamic gains from the enlargement that would by far exceed possible (if any) short-term losses. These dynamic gains would be driven by factors such as (Kawecka-Wyrzykowska and Rozati, 2002):

- *FDI inflows.* It is expected that, based on the experience from the earlier EU expansions, FDI inflows to the new members could double in few years after the accession. Other factors unchanged, under some conservative assumptions about import elasticities, this could lead to growth in Ukrainian exports to EU-10 by about 2 percent.
- *Infrastructure investments.* It is also expected that after accession considerable investments will flow in upgrading transport and customs infrastructure of the EU-10. This is of particular importance for Ukraine because it could improve considerably conditions for Ukrainian trade with the EU by reducing the cost of transit through the territory of EU-10 countries, especially Poland.
- *Standard unification.* Exporting to EU-10 will become subject to meeting the EU technical standards, which in the longer term is beneficial for Ukrainian exporters, who will have to deal with the single set of standards instead of two as it is now.

Conclusions

While EU protection, especially in agriculture, is an important constraint for certain products produced in Ukraine, EU trade policies alone cannot explain why the share of the EU in Ukraine's exports has not reached the levels of comparable countries. A key issue for sustained export growth by Ukraine is the need to accelerate export diversification. There is no evidence that EU trade policies are constraining such a process. EU duties on industrial products are on average very low and are further reduced under the GSP. The evidence from the early 1990s suggests that many central European countries managed to drastically expand their export to the EU under similar conditions, which have not been fundamentally more concessional than those faced currently by Ukraine. The real driver for the early trade reorientation in the CEE was a broad commitment to reforms, which was manifested in rapid improvements in the regulatory and business environment, strong FDI inflows, and firm rates of enterprise restructuring. Compared to CEE countries, Ukraine seriously underutilizes advantages of its geographic location (proximity to a major market) as a basis for attracting FDI and restructuring its trade toward more diversification and specialization.

While Ukraine has less preferential access to the EU market than many developing countries, as well as countries in the Balkans, this should not be considered as a critical factor that hampers export expansion because the actual tariff differences are small. This study did not find evidence to support the claim that "Ukraine is subject to extreme trade discrimination from the EU" (Aslund 2003). Moreover, the recent enlargement of the EU would not lead to any additional problems for Ukrainian exports to the EU, especially for manufacturing exports.

The primary constraints to export expansion and diversification in Ukraine are internal, and relate directly to conventional domestic factors such as weak capabilities of the existing private sector and deficiencies of the business environment that hamper new private entry, both domestic and foreign.

What are the implications of these conclusions for trade policy in Ukraine and its relationship with the EU? First, agreements with the EU in the form of the PCA and the evolving “new neighbors” initiative should be utilized by Ukraine to address its domestic behind-the-border constraints to investments and trade and improve the competitiveness of Ukrainian firms on international markets. A priority policy agenda should include further steps to improve the domestic business environment, upgrade investment promotion capabilities of the government with the aim to improve the investment image of the country, and move aggressively to increase an inflow of European FDI. The recent expansion of the EU provides a major window of opportunity for Ukraine to tap investments by firms that have been looking for low-cost locations outside of the EU. (See more suggestions on government trade strategy in Chapter 6.) This conclusion is fully consistent with the lessons from earlier experiences of European integration: major economic gains for EU partners have been coming not from the EU trade concessions, but from domestic reforms triggered by the integration process and from the FDI inflow.

At the more technical level, upgrading of the system of standards and conformity assessment, where implementation of the provisions of the PCA has been slow (UEPLAC 2003), should be considered a priority. While the implementation of EU and international standards will be a key issue in improving access to the EU and other markets, it will also play a key role in improving quality standards for Ukrainian consumers and in providing for a more efficient and effective conformity assessment system. Ukraine should also request its inclusion in the Pan European Area of Cumulation regarding exports to the EU.

Second, WTO membership would allow Ukraine to pursue more effectively the key sector specific trade barriers in the EU that constrain Ukraine’s exports. For instance, the quotas on steel products would have to be removed. Ukraine would be able to participate in negotiations on EU agricultural policies. Ukraine would also have access to the dispute settlement mechanism of the WTO, which could make a big difference, for instance, with regard to antidumping measures in cases if, after WTO accession, the volume of imports from Ukraine suppliers subject to measures did not exceed the *de minimis* level of 3 percent.

Third, despite the conflict over the taxing of scrap metal exports by Ukraine, there is an urgent need for the EU to review its policy regarding both market economy status and antidumping practices for Ukraine.

Fourth, there is a case for continuation of EU technical assistance in the trade area, for which needs remain considerable in Ukraine’s public and private sectors. Helping small and medium-size exporters, for example, in the textile and food sectors, to more efficiently utilize trade preferences available to them could be one of the promising directions for such assistance.

Ukrainian Steel Export— Performance, Sustainability and Medium-Term Prospects⁴⁸

Export Performance

Ukraine is among the leading world producers and exporters of ferrous metals. In 2003, its share in the global output of cast iron and steel was 4.55 percent and 3.84 percent respectively, and it also accounted for 8.7 percent of exports of semi-finished steel products and 6.8 percent of scrap exports. Together with Russia, Ukraine has an essential impact on trends at the world steel market.

The cast iron and steel sector is the core of the Ukrainian metallurgic and metalworking industry which plays an important role in the national economy: in 2003, the sector generated about 5 percent of GDP and 24.3 percent of the total industrial output. The sector accounts for 7.2 percent of total industrial assets and 6.4 percent of employment in the industry. Its annual production capacity is 33.9 million tons of cast iron, 42.1 million tons of crude steel and 36.6 million tons of rolled steel. The core of the sector is represented by 15 large mills, most of which are large full-cycle metallurgic combines (producing cast iron, steel and rolled products).

Ukraine's steel sector is capable of operating as a closed technological system that covers raw material extraction and processing, coke manufacturing, cast iron and steel smelting, and it has limited dependence on imports. In 2003, imports of finished rolled products and iron ore made up 2.5 percent and 12 percent of their national production. The country has an extensive raw material base, including large sources of metal scrap supply. In addition, the country's power system and transportation network are sufficiently developed to support operations of large scale metallurgical production and exports.

48. This chapter is based on the background report prepared by the expert team from the Ukrainian Center for Economic Development (CED) led by Dr Alexander Paskhaver and Dr Lidia Verkhovodova.

Ferrous metals⁴⁹ are the critical portion of Ukraine's exports and in 2003 their exports amounted to US\$6.7 billion, an increase by more than 70 percent over the period 2000–03 (Table 4.1). While the portion of ferrous metals in total exports remains quite significant, it has been declining recently from 34.5 percent in 2000 to 29.3 percent in 2003. The sector's contribution to the total growth of Ukrainian exports in 1999–2003 was about 20 percent.

The sector's capacity, inherited by Ukraine after the breakup of the Soviet Union, exceeds the internal needs of the national economy several times, and it has consequently provided the grounds for the sector's heavy focus on exports. In 2003, rolled stock exports made up 79 percent of the total output. Due to its export orientation, the sector is quite sensitive to developments of the global steel markets, which have been recently characterized by the following trends:

- A drastic increase in demand since early 2002 for both rolled stock and inputs for the metallurgic industry.
- Significant pricing growth for all main inputs in the sector.
- The expansion of a relatively new niche on the world steel market related to a growing demand for semi-finished steel products.

Indices	2000	2001	2002	2003
Gross domestic product, UAH million	170,070	204,190	225,810	263,228
Including:				
Metallurgy and metalworking, UAH million	10,687	10,520	9,122	12,600
–share in GDP, percent	6.28	5.15	4.04	4.79
Cast iron & steel sector, UAH million	4,569	5,157	5,476	6,423
–share in GDP, percent	2.7	2.5	2.4	2.4
Total industrial output, UAH million	144,412	155,891	171,207	220,605
Including:				
Metallurgy and metalworking, UAH million	33,900	35,270	39,031	53,650
–share in industrial output, percent	23.5	22.6	22.8	24.3
Cast iron & steel sector, UAH million	25,153	26,114	28,029	38,455
–share in industrial output, percent	17.4	16.8	16.4	17.4
Total exports, US\$ million	14,573	16,265	17,957	23,008
Including:				
Metallurgy and metalworking, US\$ million	6,459	6,365	6,555	8,419
–share in total exports, percent	44.3	39.1	36.5	36.6
Cast iron & steel sector, US\$ billion	5.03	4.98	5.37	6.73
–share in total exports, percent	34.5	30.7	29.9	29.3

Source: Data from the Ukrainian Ministry for State Statistics and CED.

49. Exports of steel and cast iron sector products are accounted in the group of 72 UKT VED. Cast iron, steel and rolled stock accounted for 85 percent of exports within this group of products in 2003, while the rest of exports related to scrap, ferroalloys, etc.

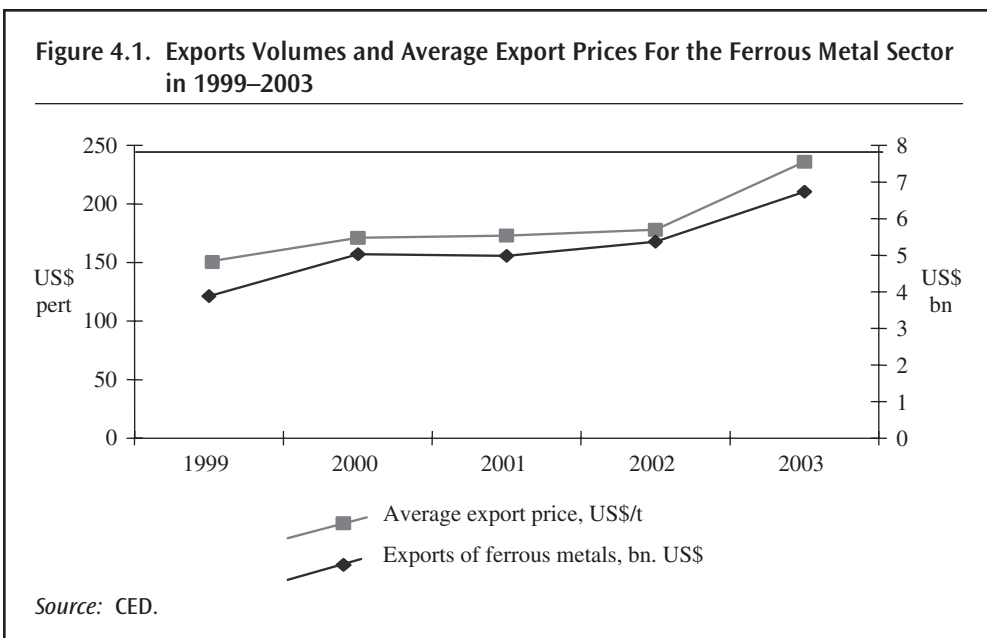
- The co-existence of producers with different technological levels, allowing traditional manufacturers to remain profitable, while operators that use new technologies expand.

The recent growth of export prices on Ukrainian steel is mostly due to an increase in both global demand and prices for steel and semi-finished products (Fig. 4.1), which was driven primarily by growth in demand in East Asia. Since the mid-1990s, the global prices for ferrous metal had been declining, but this process ended in 2001. Then global market prices moved upward in 2002, turning to a galloping growth since July 2003. Ukrainian exporters have managed to use the favorable market situation for significant export growth and their expansion to new markets.

USSR's ferrous metals industry was primarily focused on meeting its domestic needs. While only 55 percent of Ukraine's metallurgy output was sold within the country, these shipments were primarily to other former Soviet republics. The volumes exported to destinations outside of the USSR were hardly significant. In 1990, exports to foreign countries accounted for only 3 million tons (8 percent of the output) of rolled steel from the total of 15 million tons shipped outside of Ukraine.

As a result, during the first years of sovereignty the Ukrainian metallurgic enterprises lacked skills needed to operate at the global market. They were neither known among customers, nor were their products' quality in line with international standards. Consequently, Ukraine's products were relatively low priced.

The situation was exacerbated by crisis developments on the global steel market. Significant extra volumes of cheap metal that entered the market in the mid-1990s⁵⁰ threatened



50. At that time, in addition to Ukraine, Russia and Brazil also entered the market with the cheap metal.

traditional manufacturers. Starting from 1995, Ukraine's steel producers have increasingly become subject to antidumping investigation measures and other instruments of domestic market protection (Box 4.1). It is estimated that over the last 10 years almost 60 antidumping investigations were launched worldwide against Ukrainian exports of ferrous metals, which is an extraordinarily high number for an industry with total sales below US\$10 billion. Eremenko and Lisenkova (2003) provide detailed information on anti-dumping duties imposed on Ukrainian steel producers during 1993–2001.

Box 4.1. EU quotas for Ukraine's Steel Imports

The EU introduced quotas on Ukrainian steel imports in 1996 replacing the previous CIS quota. The original annual quota was set at the level of 212,000 tons, which roughly amounted to 1 percent of Ukraine's steel output at that time. Since then the quotas have been adjusted annually. However, the 2001 quota was only 25 percent higher than its 1996 level, despite the increase in domestic production during the period by about 50 percent. As was shown in Chapter 3, the EU steel quotas are highly utilized, suggesting that they are indeed binding Ukrainian exports to the EU. It is worth noting that the Ukrainian quota-constrained steel imports do not comprise a substantial proportion of total EU imports of these products.

In 2001, the EU and Ukraine had a preliminary agreement on trade in steel products, which envisioned an expansion in quotas by 35 percent to 373,000 tons for 2004. This agreement has never become effective, and respectively the 2002 quota remained intact (263,600 tons). Moreover, after Ukraine introduced export duty on metal scrap in 2003, the EU retaliated by cutting the quota by 30 percent.

The actual volumes of the steel sector's exports to the EU did not show much decline, however. This occurred because of an expansion in products (such as ferroalloys), which are not covered by EU quotas.

After extensive negotiations, the EU agreed in the context of a new agreement to increase significantly the 2004 quota for Ukrainian steel. This reflects to a large part a recent EU enlargement: the new EU members represent a major traditional market for Ukrainian steel. The EU further suggested that the quota could be increased to 1.4 million tons in 2005 if Ukraine eliminates export duty on scrap. It is worth noting that even after such an expansion, the EU quota would amount to only about 10 percent of Ukraine's total 2004 exports of rolled steel.

	In thousands of tons				
	1996	2002	2003	2004	2005
EU-15 quota	212	265.6	184.5/117.9/a	184.5/606.1/b	1,400/c
Actual exports to EU-15		656.8	868.8		

a: 117.9 reflects the effective 2003 quota given the fact that the 2003 quotas were approved quite late in the year.

b: 606.1 reflects the latest EU-Ukraine draft agreement to revise quotas upward and to reflect EU enlargement.

c: Preliminary proposal by the EU.

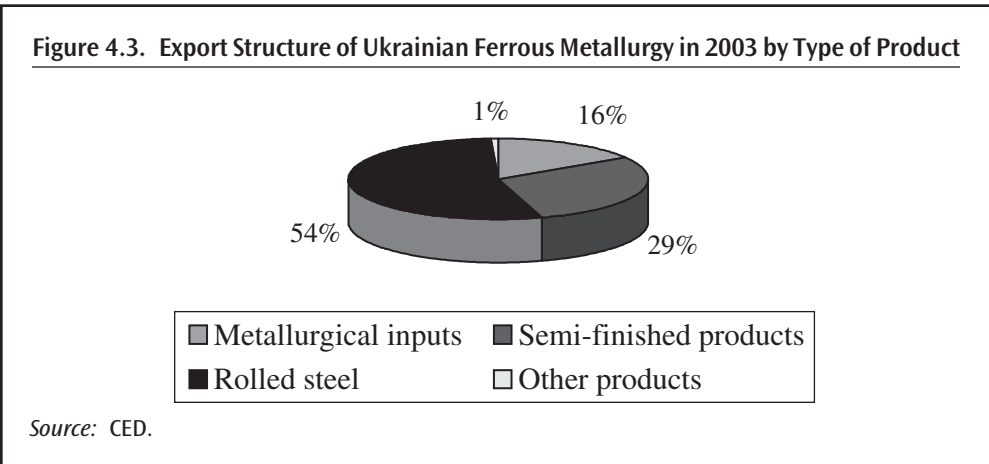
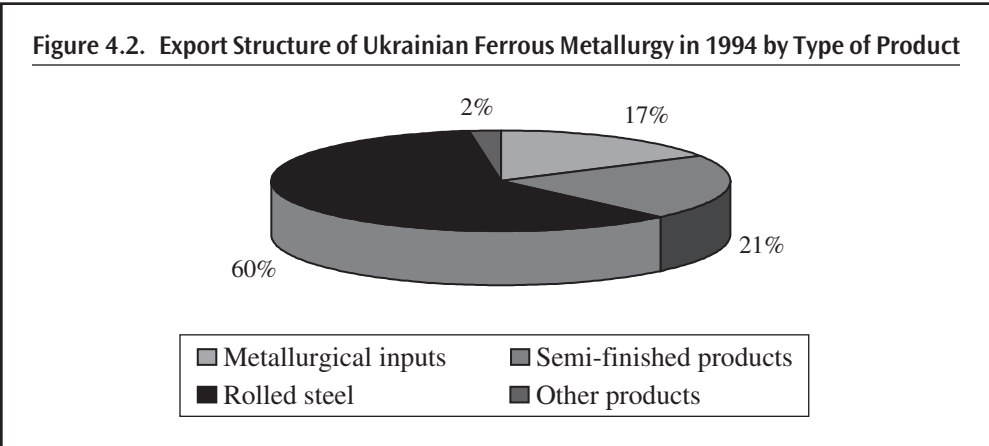
These actions considerably changed the commodity composition of the metallurgy output and exports from Ukraine in favor of cheaper and simpler products—metallurgical inputs, semi-finished still products and simpler varieties of rolled steel. The share of semi-finished goods in the total value of the sector's exports increased from 21 percent in 1994 to 29 percent in 2003, while the share of scrap metals grew from 0.6 percent to 3.4 percent,⁵¹

51. The portion of scrap metal in total exports reached 8.7 percent in 2002.

and of ferroalloys—from 1.0 to 8.8 percent (Figures 4.2 and 4.3).⁵² The distinctive feature of the above products was that they did not fall under most trade constraints, such as the EU export quotas.

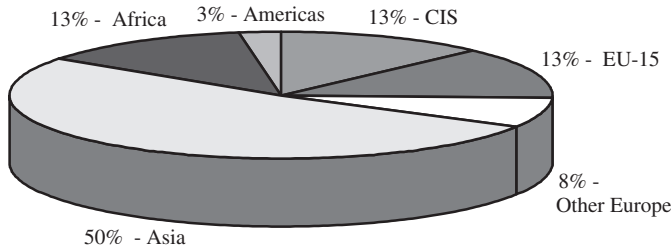
Ukrainian manufacturers have also faced serious market access restrictions introduced against their exports to the principal global markets (EU and USA). However, by the end of the 1990s Ukrainian exporters managed to resolve most of the initial problems of market penetration.

Sales to Asia amount to about a half of total ferrous exports. Other major markets include the CIS, Africa and Europe (both EU-15 and EU-10). (Fig. 4.4) As compared to the late 1990s, the major change to the geographical structure of exports occurred due to a drastic decline in exports to the United States (the share declined from 5.4 percent to 1.2 percent of the total). This was compensated by expansion in sales to Africa (primarily Algiers and Egypt) and to the EU-15. However, export growth in Europe took place largely at the expense of scrap metals and other inputs. Overall, the export strategy



52. It is worth noting that in the Soviet times, the share of products with the higher degree of processing, such as sorted rolled steel, was even higher than in 1994.

Figure 4.4. Geographic Structure of Ferrous Exports in 2003



Source: CED.

of Ukrainian steel producers appears to emphasize markets in Asia and Africa, which together in particular years amounted to two-thirds of total exports. These markets are considered to have a capacity for further growth, while at the same time they are less competitive.

Ukrainian manufacturers are using the current favorable situation in the world market for building up their market reputation. In order to strengthen their position in the market, they have established strategic partnerships with leading steel traders. Eleven out of 15 mills are currently exporting through such traders. This partnership also facilitates exporters' access to borrowing from foreign banks. In addition, Ukrainian producers made a major effort to improve the quality of their products. Practically all steel exports are certified by international certification agencies. Starting from 2002 the quality control systems of the largest Ukrainian steel manufacturers have been in line with international standards (ISO 9001-200). In order to reinforce their presence at major export markets, Ukrainian financial and industrial groups in the steel sector (FIGs) have started acquiring metallurgic assets abroad.

Currently, Ukraine positions itself on the market as a competitive manufacturer of steel products with a low degree of processing. This niche will remain the main focus of Ukrainian exporters in the medium term. So far, their penetration into the market niches of higher-value products (for example, coated rolled-stock) has been slow. This is reflected in rather a stable export structure and sustainable average export prices (Table 4.2). Such a conservative nature of the export structure in the sector is due to the existing competition on the global market, on the one hand, and to Ukraine's current level of technological capabilities along with the low investment level, on the other.

The year 2003 marked a revival of the internal market of ferrous metals in Ukraine. After a long break, internal prices have started to increase due, first, to a stronger demand on the part of rapidly developing metal-consuming industries (machine-building in particular), and, second, a reduced supply caused by raised exports. As a result, in 2003 there was a simultaneous growth of both export and internal prices in Ukraine that created even better conditions for development in the steel sector.

Table 4.2. Structure of 1999–2003 Ukrainian Rolled-Stock Exports
(US\$ millions in 1999 prices)

	1999 average prices US\$/t	Export in 1999 prices									
		1999		2000		2001		2002		2003	
		US\$ million	percent	US\$ million	percent	US\$ million	percent	US\$ million	percent	US\$ million	percent
Rolled Stock–total, Including:	161.6	3,098.1	100.0	3,634.0	100.0	3,837.7	100.0	3,972.5	100.0	4,073.2	100.0
<i>Semi-finished products</i>	<i>136.78</i>	<i>1,154.20</i>	<i>37.26</i>	<i>1,273.04</i>	<i>35.03</i>	<i>1,248.74</i>	<i>32.54</i>	<i>1,405.34</i>	<i>35.38</i>	<i>1,371.18</i>	<i>33.66</i>
Billets	135.52	1,082.80	34.95	1,220.33	33.58	1,230.67	32.07	1,404.39	35.35	1,368.24	33.59
Alloyed-steel ingots, billets	159.09	71.40	2.30	52.71	1.45	18.07	0.47	0.95	0.02	2.94	0.07
<i>Rolled-stock in sheets</i>	<i>179.98</i>	<i>1,074.60</i>	<i>34.69</i>	<i>1,232.07</i>	<i>33.90</i>	<i>1,331.88</i>	<i>34.70</i>	<i>1,400.16</i>	<i>35.25</i>	<i>1,462.23</i>	<i>35.90</i>
Hot-rolled steel sheets > 600 mm	161.26	724.90	23.40	805.74	22.17	897.30	23.38	980.96	24.69	977.77	24.00
Cold-rolled steel sheets	218.15	262.00	8.46	278.69	7.67	245.81	6.41	256.13	6.45	257.79	6.33
Coated-steel sheets	427.32	43.80	1.41	70.81	1.95	85.12	2.22	64.27	1.62	69.35	1.70
Sheets < 600 mm	182.26	11.30	0.36	30.93	0.85	34.05	0.89	33.85	0.85	44.69	1.10
Sheets < 600 mm with coating	500.00	0.30	0.01	0.00	0.00	0.70	0.02	0.56	0.01	9.30	0.23
Sheets > 600 mm, stainless	2,000.00	0.40	0.01	1.20	0.03	0.00	0.00	0.22	0.01	0.06	0.00
Alloyed-steel sheets > 600 mm	294.62	31.20	1.01	42.93	1.18	67.61	1.76	63.02	1.59	101.32	2.49
Alloyed-steel sheets < 600 mm	225.81	0.70	0.02	1.78	0.05	1.29	0.03	1.15	0.03	1.94	0.05
<i>Assorted rolled-stock</i>	<i>183.06</i>	<i>869.30</i>	<i>28.06</i>	<i>1,128.90</i>	<i>31.06</i>	<i>1,257.11</i>	<i>32.76</i>	<i>1,167.00</i>	<i>29.38</i>	<i>1,239.80</i>	<i>30.44</i>
Rods, bars in coils	173.44	239.80	7.74	307.88	8.47	325.71	8.49	353.14	8.89	328.20	8.06
Reinforcement bars	171.98	321.70	10.38	471.41	12.97	517.12	13.47	517.86	13.04	547.82	13.45
Other bars	272.84	22.40	0.72	18.01	0.50	12.63	0.33	8.40	0.21	9.52	0.23
Steel angles and other profiles	193.42	100.50	3.24	147.06	4.05	188.99	4.92	175.53	4.42	225.80	5.54
Stainless steel bars	1,283.02	6.80	0.22	44.39	1.22	60.30	1.57	39.39	0.99	33.87	0.83
Non-alloyed steel bars, angles	200.52	177.40	5.73	137.90	3.79	150.50	3.92	66.20	1.67	87.70	2.15
Non-alloyed steel bars in coils	184.21	0.70	0.02	2.27	0.06	1.86	0.05	6.48	0.16	6.89	0.17

Source: CED's estimates based on annual statistical reports "Ukraine's Foreign Trade in Goods and Services."

Assets, Investments and Capacity Constraints

Ukraine has inherited the metallurgic industry from the USSR, which largely is based on outdated technologies and essentially depreciated assets. The economic crisis of the early 1990s entailed additional compression of investments into the sector. The 1999 investments made up only 21 percent of the 1990 level. The average level of fixed assets' depreciation reached 60 percent (70 percent in the steelmaking sector) by the end of the 1990s. However, the situation in the sector has started improving during the so-called "economic experiment" (the program of large-scale government support launched in the second half of 1999) and owing to the considerable expansion of exports. In 2000, investments grew by 35 percent. In more recent years the volume of investments per ton of steel output notably increased, in 2003 approaching two-thirds of the 1990 level (Table 4.3).

During the period of economic crisis in Ukraine the production capacities of ferrous metallurgy remained largely unaffected. Only a limited share of the sector capacity was liquidated. Adjustment largely took place through lower capacity utilization. While by 1996 (the lowest point of production) production in both casting and smelting declined by about 60 percent against 1990, the production capacity declined only by one-third. The rate of capacity utilization fell to 61 percent over the same period.

According to experts' assessment, at the moment the share of sectoral assets that needs immediate replacement is around 10 percent. These assets are distributed among different companies. Two of the sector's enterprises are continuously operating at a loss: Makeyevsky Metallurgic Combine and Dnepropetrovsky Metallurgic Works named after Petrovsky (together they account for 5.8 percent of sales in the sector). Both of them are in critical need of deep restructuring. In addition, two small enterprises—Kramatorsky and Konstantinovskyy Metallurgic Works—have not been operating for a while and are to be liquidated. But the hard core of the sector appears to be quite viable.

Compared to 1996, the 2003 cast iron output increased by 77 percent, crude and rolled steel output grew by 68 percent and 85 percent respectively. The production growth became especially strong starting in 2000. At the same time, analysis of the data on production dynamics for the entire period since independence suggests that the sector still has a considerable share of unused capacity.

The investment resources currently available to the sector operators are insufficient to start their in-depth restructuring and upgrading. An unfavorable investment climate in the

Table 4.3. Output and Investments in the Cast Iron & Steel Sector, 1985–2003

	1985	1990	1995	1999	2000	2001	2002	2003
Steel output (million tons)		44.9	18.0	17.8	20.6	20.9	23.0	25.7
Cast iron output (million tons)		52.6	22.3	22.3	25.6	24.4	27.4	31.8
Investments, total (US\$ million)	989.3	725.1	246.2	155.4	210.4	229.8	222.5	330.7
Investments per 1 ton of steel (US\$/t)	18.0	13.8	11.0	5.7	6.6	6.9	6.5	8.8

Source: CED's estimates based on Ukrainian Annual Statistical Reports.

country does not facilitate the attraction of foreign investments.⁵³ Local operators are not strong enough yet, but at the same time they remain to be quite hostile to the idea of strategic foreign investors entering the Ukrainian market. Moreover, the preparation of large restructuring projects in the sector is constrained by uncertain forecasts for long-term developments on the ferrous metals market. Meanwhile, the current favorable state of the market has provided even more incentives to insiders to postpone decisions on large investment projects.

The sector currently implements mostly small investment projects focused on a partial and narrowly selected upgrading of the most deteriorated assets. During the last decade only few new (green field) shops or major pieces of equipment were put into operation. This approach provides for a cost-efficient equalizing of the technical level among different stages of the technological cycle within the companies and facilitates quality improvements. Output growth has been driven mainly by increased capacity utilization and the recovery of non-operating units. Such an investment strategy so far has proved to be a practical way to support output and export expansion.

Analysis also shows that new owners of large metallurgical enterprises focus their medium-term (5–10 years) strategies on the utilization of existing obsolete capacities until their complete physical depreciation. Maintenance and upgrading costs have been kept at the minimum, just enough to meet the immediate market needs and maintain the competitiveness of products with the niche currently occupied by Ukraine. This strategy ensures the low capital intensity of current production: 2–2.5 times less than in Russia and 3–4 times less than in OECD countries.

There are obvious adverse effects of this investment strategy, including preservation of obsolete technologies, maintenance of an excessive energy intensity of production, and an increased impact on the environment. But ultimately it is up to market participants to decide when and how much to invest in the sector. In the past, sometimes steel operators managed to use their older assets much longer than outside observers believe is efficient (Tarr 1985). However, in the medium term the sector would inevitably face the problem of liquidation and replacement of outdated units, starting with those that operated before the 1950s.

In spite of a nearly 30 percent decline in metallurgical output during the years of independence, the sector's employment level has remained practically unchanged. Moreover, employment in the sector increased by roughly 12 percent over the period 1995–2000. Consequently, labor productivity dropped even further than output. In 2003, one employee produced 180 tons of steel (against 255 tons in 1990). The rate of labor productivity in the Ukrainian ferrous metal industry is similar to the one in Russia and it is above China's level, but it is much lower than in the majority of countries with more modern metallurgical industries. For example, labor productivity in Brazil is 471 tons per person, in the EU 599, and in Japan 631.

The lower labor productivity in Ukraine's metallurgy is primarily due to the specifics of its employment structure, inherited from the Soviet era. Nearly a half of the enterprises' staff is still employed in operations that are not part of the metallurgical production itself and that in OECD countries are performed by independent non-metallurgical companies. Those are,

53. It is estimated that for the period 1992–2002, total FDI in the ferrous metallurgy and metal processing amounted to US\$281 million (5 percent of the total FDI in Ukraine). However, it is believed that a considerable portion of this capital inflow represents a return flight capital of the sector's insiders.

first, construction, maintenance, and technical upgrading of metallurgical facilities, and, second, social services and agricultural production. The difference in labor productivity in similar metallurgical operations is not so striking. Ukraine's productivity is 74 percent of that in Brazil, 58 percent of that in the EU, and 55 percent of that in Japan. In 1999–2003, average labor productivity in the sector increased by about 50 percent.⁵⁴

In the 1990s, the Ukrainian metallurgical companies managed to drastically reduce their expenditures on provision of social services, which were substantial in the Soviet era. First of all, they almost completely divested to municipalities the most burdensome and costly part of social assets—housing stock and childcare establishments. In 2003, total spending on social services in the sector made up only 1–3 percent of companies' profits and 0.2–1.0 percent of their total expenses.

At the same time, the metallurgical companies have recently increased their expenditures on the socially attractive non-core assets (sports, medical, and recreational facilities). For top managers and owners in the sector, spending on such facilities turns into a political resource in their relationship with employees, local and central governments. The growth of the employment rate in ferrous metallurgy since 1995 was primarily due to the expansion of non-core activities. The latter constitutes a major reserve for employment rationalization.

Government Policies: Main Instruments of Support to Local Steel Producers

Ukraine's ferrous metals industry has been traditionally enjoying significant government support due to the importance of the role it plays in the economy. In the event of privatization in the sector,⁵⁵ the majority of enterprises fell under the control of several large domestic financial and industrial groups (FIGs).

Privatization and subsequent operations of the privatized and state-owned assets in ferrous metallurgy have formed the basis for the emergence of the largest private companies in Ukraine. This process has nearly the same political and economical importance for the economical development and economical policy of today's Ukraine as had similar processes in the Russian oil industry. At present, the process of consolidating controls in the sector by new owners is close to being completed. The Ukrainian FIGs generally are vertically-integrated companies that have established an efficient control over financial flows of formally independent enterprises, especially suppliers of raw materials and other inputs.

In the 1990s, the government actively but indirectly promoted the creation of FIGs by implementing policies that facilitated rapid capital consolidation by new owners. The latter policy included such measures as privatization "by request" of influential private sector players, maintenance of low prices on industrial inputs (raw materials, energy, and transportation), maintenance of soft budgetary constraints for large firms. In particular, the government did not impose any significant sanctions on firms that had accumulated considerable tax and energy arrears. It was also a liberal observer of the large-scale outflow of new owners' capital from the country.

54. It is worth noting, however, that during the latest period of economic expansion labor productivity in Ukraine's entire real sector has been growing rapidly, and in this respect the steel sector underperformed significantly relative to the rest of manufacturing.

55. The share of state owned enterprises in the total sectoral output declined from 93 percent in 1992 to 45 percent in 1995 and to 14 percent in 1999 (Kuzmyn, 2002).

Box 4.2. Kryvorizhstal Privatization: Insiders Won, Who Lost?

The sale of Kryvorizhstal was the largest, controversial privatization effort in the history of Ukraine. In mid-2004, the 93 percent stake in the giant ferrous metallurgy firm was sold to the Investment Metallurgy Union (IMU), a consortium of two major domestic FIGs (Interpipe and System Capital Management), for UAH 4.26 billion (approx. US\$0.8 billion). The qualification requirements for bidders, quality of privatization procedures, and a short tender duration, all suggest the discriminative nature of this tender. Failure to conduct such a major transaction transparently damaged Ukraine's investment image and in the medium term locked the country out of benefits associated with the potential entry of the global international player. In addition, government revenues fell well below the originally forecasted asset value of Kryvorizhstal (estimated at about US\$1.5 billion, about 3 percent of GDP).

Kryvorizhstal is the largest Ukrainian ferrous metal producer that accounts for almost 20 percent of domestic steel and cast iron production with over 50,000 employees. In 2003, being fully state-owned, it generated over US\$0.25 billion in profits.

The major discriminative requirement for bidders was a request to have experience in domestic coke production for at least three years (two of which had to be profitable), a condition that no potential foreign bidder and very few domestic bidders could satisfy. Aside from being explicitly discriminative against foreign competitors, this requirement had little economic sense. Formally, it intended to address the issue of growing domestic prices of coke (due to expansion in its exports) by further consolidation of the sector under the control of few vertically integrated companies.⁵⁶ As a result of such a policy, the combined share of the new owners of Kryvorizhstal in Ukraine's total steel production may reach 50 percent. This poses a real risk of undermining competition in the sector.

The tender procedure was further complicated by the tight timetable for submission of necessary bidding documents. Given these time constraints, a tender requirement for bidders to be registered in the national company registrar became a separate major obstacle.

Despite participating foreign bidders (LNM/US Steel and Severstal/Arcelor) offering substantially larger bids (the LNM-US Steel consortia offered about US\$1.5 billion), the IMU was selected as a winner. The fact that the primary owners of the IMU are known to have close ties with the current government does not provide for additional credibility to the transaction. The privatization procedure generated strong resentment among Russian and British bidders. It may have longer-term negative implications for Ukraine's commercial diplomacy in times when the country needs the additional good will of its partners to accelerate WTO accession and regional integration processes.

Under these circumstances, the formation of powerful FIGs has expanded the lobbying capacity of the sector,⁵⁷ ensuring its access to various types of government support.⁵⁸ The interests of FIGs are explicitly taken into account in both internal and foreign policies of the government, for example, when the issues of Ukraine's entry in WTO and the relationship with the EU are considered. The recent privatization of Kryvorizhstal, the largest Ukrainian steel producer and the last major metallurgical firm, whose privatization was initially delayed, illustrates the political leverage of sector insiders (Box 4.2).

56. An immediate concern relates to the dominance of vertically integrated companies and is linked to potential price discrimination: independent and potentially more efficient steel producers will face higher prices for major inputs (such as coal) compared to those steelmakers who are subsidiaries of the FIGs that also control/own producers of inputs (e.g., coal mines).

57. See World Bank (2004) Ukraine Country Economic Memorandum on the role of the financial and industrial groups in Ukraine in the latest period of economic recovery.

58. Subsidization of domestic steel producers has been common to both developed and developing countries, including Brazil, Turkey, India, China, and Egypt. Multilateral talks to introduce international rules in this area and limit the amount of subsidies, led by the OECD, have been unsuccessful so far.

The main instruments of government support for the sector have recently included:

- Restrictions on scrap metal exports.
- Tax benefits granted within the “experiment” of 1999–2002.
- Maintenance of low energy tariffs, primarily for electricity.

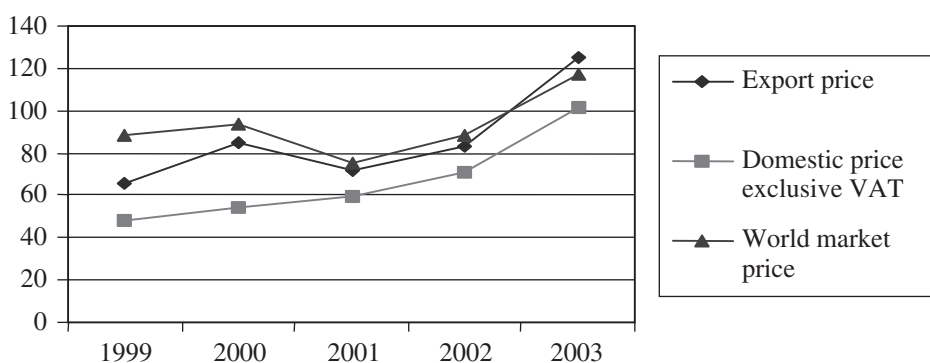
Due to the upsurge of prices at world markets, Ukraine and other countries with a developed metallurgy sector have faced the challenge of skyrocketing domestic prices and expanded raw material exports, including exports of scrap metals (Figure 4.5). Steelmaking in Ukraine requires a larger use of scrap since it still relies more widely on open-hearth furnaces. To ensure the same quality of steel, the latter technology implies higher scrap consumption (70–90 percent higher) per unit of output compared to the newer oxygen-based technology. In other words, the higher intensity of scrap consumption enables Ukrainian steelmakers to improve the quality of their steel and thus make it more competitive internationally.

In response to growth in global demand, Ukraine became one of the first countries that introduced restrictions on *scrap metal exports*.⁵⁹ Initially, the GOU employed administrative restrictions, but since January 1, 2003, it introduced an export duty on scrap metal in the amount of €30 per ton.

On the one hand, the measure caused Ukraine certain both political and economic losses:

- *Political losses.* While Ukraine’s partners protested aggressively against the tax, the country’s international image has been affected, and the process of Ukraine’s integration into the EU has slowed down. In addition, this step raised pressures inside the country in favor of further administrative interventions into metal markets. *Inter alia*,

Figure 4.5. Evolution of Scrap Metal Prices, 1999–2003, US\$ per ton



Source: Data from the Ministry for Industrial Policy and the National Statistical Service, world market prices are according to <http://www.steelonthenet.com/yfk.html>

59. Other countries have recently initiated similar limitations of scrap exports. In 2001, Russia introduced a duty of 15 percent or at least 15 EURO/t on scrap exports, while South Korea has started to apply its licensing. Since October 2003, Serbia introduced a duty on scrap exports in the amount of 15 percent of its customs price. Protective measures have also been established by Venezuela.

the industry's lobby has been insisting (so far unsuccessfully) on introducing quotas and export duties for other types of metallurgic inputs (coke and iron ore).

- *Economical losses.* In 2003, the EU cut the de facto quota of Ukrainian steel imports to 117,900 tons. Had the duty been removed, the quota would have been expanded to 373,000 tons in 2004 without the enlargement adjustment. As a result, the Ukrainian enterprises had to shift exports to markets with lower prices that incurred certain financial losses to the industry. Moreover, overall collection and supply of scrap in Ukraine declined in 2003 because of weakened incentives for scrap operators.

On the other hand, restrictions on scrap metal exports have brought some immediate benefits to Ukraine, such as:

- A major expansion in scrap supply for domestic metallurgic enterprises,⁶⁰ which in 2003 reached the highest level for the 10-year period (91.2 percent of the total estimated needs of the industry).
- Reducing costs of rolled stock production and receiving extra yields (estimated at US\$36.6 million).
- Ensuring additional budgetary receipts, including scrap export duties (estimated at US\$41.3 million).

Overall, primarily due to the increased global demand for steel in 2003, exporters' aggregate net losses appeared to be insignificant. The losses in exports to Europe were compensated by increased sales at other markets. After losing the quota of 237,000 tons of the de facto quota for exports to the EU, Ukraine's growth in exports to the CIS in 2003 amounted to 1,258,000 tons, and to African countries 515,000 tons. Under different market conditions, however, the impact on the industry would have been more damaging.

Unfortunately, some in Ukraine have interpreted the temporary positive effects from the use of export restrictions to justify a broad adjustment in policies aimed at expansion of government regulation of the industry and primarily at maintaining low input prices. Such perceptions indeed have caused a certain expansion of regulatory measures lately that directly affect exporters and entail further distortion of market signals. These recent measures include, *inter alia*, increased rail freightage rates for export of metallurgic raw materials and additional complications of customs clearance procedures for exports.

Moreover, new shadow mechanisms have emerged to bypass the administrative restrictions on exports. In particular, the countries that have free trade agreements with Ukraine remain free of export duty on scrap, and they are being used by exporters as duty-free transit channels. As reported by the Ukrainian media, in 2003 scrap exports to Georgia and Moldova were estimated to exceed 30 percent of the total Ukrainian exports of scrap metal.

International experience suggests that export tariff restrictions may be used only as short-term extraordinary measures. In the long run, they will entail serious adverse effects of restrained competition and distortion of market signals that are the basis of strategic decision-making in the sector. Strategically, Ukraine has no other choice than to bring its national system of metallurgy regulation and support in line with the generally recognized

60. Introduced restrictions proved to be quite efficient in limiting exports of scrap metals: from the average of 4.8 million tons in 1999–2002 to 3.8 million tons in 2002 and 1.9 million tons in 2003.

WTO and EU standards. In particular, despite the fact that export taxes are not illegal under the WTO, the reality of accession process would require that the Ukrainian government makes a commitment to change this policy. A practical solution would be the development of a schedule for the gradual (for example, five or six years) phasing-out of scrap export duties as part of the government strategy of WTO accession. Moreover, such gradual phasing out should be supplemented with a considerable (up to 50 percent) one-time cut of the duties in 2004–05.

Economic Experiment of 1999–2002

The Ukrainian government never provided direct budgetary support to steel producers like it did, for example, to the coal sector and agriculture. In the early 1990s the GOU provided the metallurgy sector with some support that was mostly on a case-by-case basis and was insufficiently transparent (i.e., largely kept outside of the scope of annual budgets), such as writing-off tax arrears, granting government guarantees to back commercial loans, and so forth. The *economic experiment* undertaken between July 1, 1999 and January 1, 2002 that involved almost all the large metallurgical enterprises (overall 73 enterprises participated in the experiment) has been the only example so far of government support to the sector, which was more of a programmatic nature. The experiment was aimed at the financial rehabilitation of metallurgical enterprises and the consequent increase of exports, investments and demand in related industries. The analysis that pre-dated the experiment indicated that the lack of working capital and accumulation of arrears had completely blocked enterprise development.

Despite some improvements, the experiment as a program of massive government subsidies remained far from being fully transparent. In a situation of considerable state budget deficit, the GOU decided to use writing-off and restructuring of tax arrears, and introduction of tax and other payment benefits as its primary financial rehabilitation instruments. Moreover, the Government has never undertaken a comprehensive cost-benefit analysis of the program. Thus, the real contribution of the experiment to the eventual recovery of the sector is not easy to measure accurately.

Over the experiment period (1999–2001) implicit budgetary support (written-off arrears and tax benefits) provided to ore mining and steelmaking enterprises were estimated to amount to UAH 2.7 billion (US\$514 million). This is equivalent to an annual subsidy for a three-year period in the amount of nearly 2.9 percent of annual sales in the sector. In addition, during the same period the same enterprises were granted a tax deferral worth about UAH 2 billion (US\$450 million).

During the short period of time, the rendered financial support along with the contribution from other essential factors has drastically improved the sector's financial position as follows:

- Profitability has improved markedly. In 2003, the average profitability rate in the sector reached 13.5 percent (due to both increased efficiency and pricing factors), while investment rates increased considerably primarily because of reinvested profits.
- Shortage of working capital has disappeared enabling a decline in the share of barter in total sales from 38 to 3 percent.
- Enterprises have become reliable taxpayers. After the experiment they have not been accumulating any more arrears due either to the budget or to energy and input

suppliers. By experts' estimates, in 2002 the sector paid the budget 3.5 times more in real terms than in 1999.⁶¹

- The drastic expansion of metallurgic exports has become a primary source of monetary and macroeconomic stabilization in the country.

The above results look even more significant considering the crisis situation on the global steel market during the same period of 1999–2001. It is particularly important to highlight the psychological aspect of the experiment. Having de facto declared a tax amnesty, the GOU has reduced the enterprises' risks of potential bankruptcy and tax fines. This improved expectations for both companies' owners and managers that facilitated investments and more broadly implementation of long-term development projects, and has also reduced capital flight.

However, the successes in the sector could not be attributed solely to the considerable financial support provided by the government. The situation improved also because the support provided coincided with other essential factors, such as:

- Ukraine's general economic recovery after 2000 that was due to genuine fiscal stabilization and improved payment discipline.
- Economic growth in Russia and consequent surge of demand in the Russian market.
- Effects of mostly completed privatization, and consolidation of control by new owners.

Therefore, the GOU should be careful not to overestimate the experiment's role. Moreover, it is worth noting that under present conditions of a rapidly growing economy, repeating a similar program of large-scale subsidization in other sectors would be even less justifiable than in 1999.

The experiment was terminated in 2002, in part, because of the increased number of antidumping investigations triggered by experiment-induced subsidies, the steel operators requested the Government to stop the program. Since then the sector's taxation practice has been in line with the general requirements of Ukraine's tax legislation.

Energy Subsidies to Metallurgy

Government *tariff policy* in the energy sector currently represents a major instrument of implicit government support to the real sector in Ukraine. The metallurgy (both ferrous and non-ferrous) sector is a major recipient of implicit energy subsidies in the non-residential sector. The metallurgy sector received energy subsidies worth about US\$0.3 billion or 0.7 percent of GDP in 2002. The metallurgy sector accounted for about half of all implicit energy subsidies to the Ukrainian industry. Most energy subsidies were provided in the form of low electricity tariff: while, according to World Bank's estimates, full economic costs of producing and delivering electricity to large industrial consumers in Ukraine amount to 3.0 c per kWt-hour, the 2002 average tariff (net of VAT) in metallurgy was only 2.3 c. The

61. It is worth noting that tax compliance in Ukraine improved considerably across the board starting from 2002, reflecting major efforts of the Government to strengthen financial discipline in the economy.

2002 energy subsidies amounted to about 4.7 percent of Ukraine's officially reported metallurgical (ferrous and non-ferrous) exports of US\$5.9 billion.

It is worth noting that we do not have data to estimate allocation of the total energy subsidy among ferrous and non-ferrous metallurgy sub-sectors. While the ferrous metallurgy sector (which is the subject of the analysis in this chapter) shows larger output and sales, it is likely that it receives a somewhat smaller portion of total energy subsidies because the non-ferrous metallurgy sector is much more energy intensive. Still, it may be proper to assume that the implicit energy subsidies to ferrous metallurgy could reach 0.5 percent of GDP a year in the early 2000s.

At the same time, it has to be mentioned that the 2002 situation shows a clear decline in the level of energy subsidization. In 1999, energy subsidies to the sector amounted to an estimated 1.4 percent of GDP. Most of this decline derived from the upward adjustment in the power tariff (from less than 1.6 c in 1999). Gas subsidies to metallurgy have been insignificant. The average gas tariff for metallurgy exceeds 90 percent of the respective LRMC. However, the sector received some additional energy subsidies through depressed coal prices. However, we do not have data to estimate the amount of the latter, so coal subsidies are not reflected in the above aggregates.

The Issue of VAT Refund to Steel Exporters

The problem of timely and accurate VAT refund to exporters has been a major fiscal and governance issue in Ukraine for several years (World Bank 2004). In any event, the matter goes much beyond the problems of steel exports or for that matter of the trade policy. However, it is worth noting that steel producers, as most other leading country's exporters, are seriously affected by delays in VAT refund. It is estimated that at the end of 2003 the total amount of VAT refund due to steel exporters exceeded US\$200 million. While this amount represents a considerable and unnecessary tax on the industry, there is no sign that these delays so far have been critical for the sector's competitiveness. Moreover, there is sufficient indirect evidence that steel exporters (through their affiliated traders) do participate in various schemes to inflate values of VAT refunds. This known fraud with the VAT refund does not make a reform of VAT administration less urgent: the government has to upgrade the system, based on the best international practice, to ensure its transparency, equity and protection from external manipulations. As surveys of Ukrainian exporters confirm, this is an important measure toward a general improvement in the economy-wide business environment. Given that the current arrangements are especially harmful to small and new exporters, which in the existing system do not have sufficient leverage to lobby for VAT refund, sorting out the VAT administration has to be a priority for any future export diversification program the GOU may want to pursue.

Comparative Advantages of Ukrainian Ferrous Metallurgy

The main competitive advantage of Ukrainian metallurgy is due to traditionally low domestic prices on sectoral inputs and energy resources. Until now, it has supported a lower level of unit production costs comparing to OECD countries even considering the higher material (by 5–7 percent) and energy (by 25–30 percent) intensity of production in

Ukraine. Based on 2003 data, the estimated comparative cost advantages with respect to four principal inputs (coke, iron ore, natural gas and electricity) showed that even accounting for relative over-consumption of these resources, total unit costs in Ukraine made up only 87.4 percent of similar costs at average world market prices.

Extra sources of comparative advantages of Ukraine's metallurgy relate to the following factors:

- a Lower labor costs.⁶²
- b Low investment/capital expenses.
- c Low costs related to environmental protection.

Main differences in the aggregated structure of costs in ferrous metallurgies of Ukraine and Germany are shown in Table 4.4.

It should be noted that the above mentioned estimates of the sector's comparative advantages take full account of the significant surge in internal prices on metallurgical inputs in 2003 fueled by the growth of world market prices. Within a year a considerable conversion of global and domestic input prices has taken place and aggregate production costs per one ton of rolled steel increased in Ukraine by 17.3 percent. However, this did not worsen the sector's financial position since the internal and export prices were growing faster than costs. Compared to 2002, the sector's profitability rate rose from 7.5 to 13.5 percent in 2003.

Pricing in the coal industry has been changing the most recently. Ukraine's coal mines traditionally enjoy an explicit government subsidy in an amount of more than US\$0.5 billion a year. These subsidies for a long time have been helping to depress domestic coal prices in Ukraine thus allowing for reduced metal production costs. The situation has started changing, particularly with regard to coking coal. First, the bulk of coal industry subsidies by now are allocated to the mines that extract steam rather than coking coal: in 2003, coking coal producers received less than 10 percent of total subsidies to the industry. Second, exports of Ukrainian coke increased drastically (5.4 times during 1999–2003). That has implied coke shortages on the internal market, expansion of its imports and a consequent alignment of national and global coke prices. In 2003, the internal coke prices grew by nearly 60 percent.

The analysis shows that in general in the next 5–7 years the Ukrainian cast iron and steel sector will manage to retain its main competitive advantages notwithstanding cyclical price fluctuations on the global market. The cost advantages available to the sector at

Table 4.4. Comparative Cost Structure in Ferrous Metallurgies of Ukraine and Germany in 2001 (Percent)

	Ukraine	Germany
Material costs	78.5	59.8
Depreciation charges	4.0	10.0
Payroll costs	6.9	25.2
Spending on social assets and services	2.5	–
Other operational costs	8.1	5.0

Source: *National Metallurgy of Russia* magazine, September–October 2003, p.10.

62. In 2003, the monthly average wage in Ukraine's ferrous metallurgy was about US\$200 while it was nearly US\$500 in Russia, Poland and Brazil (source: www.infmetal.org).

the moment make it relatively resistant to potential external shocks and challenges. The major factors of retaining the sector's competitiveness in the middle run are the following:

- The existence of large vertically-integrated companies that will retain control over the sources of relatively cheap inputs (including iron ore and ferroalloys).
- The existence of a developed raw material base, inherited from the Soviet era, which in the medium term would not require significant extra investments and would ensure low transportation costs, making the sector less vulnerable to the situation in global markets.
- Maintenance of low energy tariffs (compared to the EU) primarily due to the secured access to Russian and Turkmenistan gas that is supplied under long-term contracts.
- Lower investment and payroll costs.
- Higher profitability rate for major steel producers that provides them with an extra safety margin.

Extra (latent) financial reserves existing in the sector are reflected in the high margins of its export operations. This margin also includes a part of revenues that producers prefer to leave outside the country. The comparison of stated export prices and global sale prices shows that the export sale margin currently reaches 20–25 percent of the registered export price.

Table 4.5 shows the principal indicators of the sector's financial performance that have grounded the conclusion on its resistance to potential external shocks.

	1999	2000	2001	2002	2003
Production costs, US\$/t	169.6	150.1	160.9	168.9	202.2
Revenues from sales, US\$/t	174.1	176.0	175.2	181.5	229.5
Pre-tax profits, US\$/t	4.5	25.9	14.3	12.6	27.3
Profitability, percent	2.7	17.3	8.9	7.5	13.5
Internal wholesale prices, net of VAT, US\$/t	261.2	239.3	226.9	215.3	258.8
Export prices, US\$/t	159.7	179.8	175.5	176.7	224.8
World market prices*, in percent to export prices	Expert estimate				124–165
Export sale margin*, in percent to export price	Expert estimate				20–25

*Relates to the prices of principal commodity groups of Ukrainian steel exports.

Source: DEC's estimates on the data from the Ministry of Industrial Policy and State Statistical Agency, and www.meps.co.uk, www.metaltorg.ru.

Medium-Term Prospects

Based on international projections, Ukrainian experts estimate that external conditions for the development of ferrous metallurgy in the middle run will remain favorable. The prices for Ukrainian rolled steel exports are expected to remain at the same high levels through-

out the whole period. While a certain drop in global steel prices seems very possible after 2007, average ferrous metal prices for the period to 2010 are not expected to be lower than their 2003 level.⁶³

In such conditions, the Ukrainian cast iron and steel sector will most likely follow the inertia part based on its current development model. Production capacity will be expanded by only about 5 percent through reconstruction and partial upgrading. Further improvements in capacity utilization will remain the major source of output growth.

Rolled steel output is expected to grow by 11.5 percent (Table 4.6) and steel output by 10.5 percent (Table 4.7). The growth will be driven primarily by increased internal demand. Export volume will remain practically intact. However, there are expectations of significant shifts in the structure of exports toward products with a higher degree of processing that would allow for raising unit export proceeds by 25–30 percent.

By the end of the period the demand on the global market is expected to follow the downward trend, and that will be the time for the Ukrainian ferrous metallurgy sector to start a gradual closing down of its depreciated production units. By that time Ukrainian operators should be able to identify a new model for sector development and they are likely to accumulate the required investment resources to finance the sector-wide restructuring effort that would be needed.

Projected growth is expected to entail a gradual employment reduction (about 10 percent by 2010) and a labor productivity growth in the sector (Table 4.7). In the medium run, labor cuts in the metallurgy sector will not be concentrated and remain mostly local phe-

Table 4.6. Ukraine's Projected Output, Domestic Consumption, Exports and Imports of Rolled Steel in 2004–10
(millions of tons)

	2003	2004 forecast	2005 forecast	2010 forecast	Growth, 2003– 2010, percent
Output	31.4	33.6	34.0	35.0	11.5
Exports,	24.8	26.45	26.5	24.5	-1.2
Including:					
<i>Inputs and Semi-finished goods</i>	10.18	11.0	10.7	7.5	-26.5
<i>flat rolled steel</i>	8.02	8.35	8.5	9.0	12.5
<i>assorted rolled steel</i>	6.34	7.10	7.3	8.0	26.0
Imports	0.80	0.85	0.9	1.0	25.0
Domestic consumption	7.40	8.00	8.4	11.5	49.0

Source: Estimates by the Ukrainian Economical Research and European Integration Policy Institute under the Ministry of Economy.

63. It is worth noting that the recent forecast by the Economist Intelligence Unit is much more conservative. It suggests that global metal prices would start to fall slowly by 2005. An aggregate drop in prices during 2005–08 is estimated at 25 percent, i.e., prices will actually come back to the 2003 level. However, given that 2003 prices were also significantly higher than the average steel prices for the last 10 years, this scenario should not generate major problems for Ukrainian producers either (Source: www.eiu.com).

nomena. The current investment policy of Ukraine's metallurgical enterprises does not imply any considerable changes in labor productivity and, as a rule, it does not entail any significant employment cuts in the sector. The expected capacity reduction will primarily concern individual units within the larger combines, but will not affect entire companies. The metallurgy sector also accounts for a relatively large share of pensioners in the total number of employed. This provides extra room for future smooth restructuring and employment adjustments.

However, the issue of labor force releases in the metallurgy sector could become sharper in the long run, considering the expected cyclical recession on the global steel market and the ultimate need for a deep restructuring in the sector.

	1990	1995	2000	2001	2002	2003	2005 forecast	2010 forecast
Steel output, million tons	52.6	22.3	31.8	33.5	34.5	37.5	40.5	41.0
Growth, percent to previous year	—	-57.6	142.6	105.3	103.0	108.7	108.0	101.2
Number of employed, thousand	206.6	193.4	216.2	216.1	212.0	208.0	198.0	186
Growth, percent to previous year	—	-6.4	11.8	-0.1	-1.9	-1.9	-4.8	-6.1
Labor productivity, tons per person	255	115	147	155	163	180	205	220
Growth, percent to previous year	—	-54.9	127.8	105.4	105.2	110.4	113.9	107.3

Source: CED's estimates on the basis of data from the Ukrainian Annual Statistical Reports.

Conclusions

Ukraine's cast iron and steel sector in the middle run will follow the existing development model that is primarily based on outdated technologies and technical assets. This model will be efficient as long as the level of global steel prices is high, allowing Ukraine to retain its advantages as a lower-cost supplier of low-end products. However, high material and energy intensity of metallurgical products and low labor productivity may threaten the sector's competitiveness in the future.

In the medium term, the ferrous metal sector would not be able to remain a driver for further expansion in overall Ukrainian exports. For the period to 2010 the sector is expected to maintain the current volume of steel exports, while gradually increasing the quality of steel products and unit value of export proceeds. Despite the sector maintaining its leading position in Ukraine's foreign trade, its share in total exports is expected to go down.

The sector's development within the existing model will be impossible by the end of the decade. Ukraine will face the need to pick a new model for the development of its steel sector. In that period the government and the sector's operators will face serious problems

regarding the need to attract large-scale investments to implement in-depth sector-wide restructuring and settle environmental and social problems in the metallurgical regions.

Ukraine's cast iron and steel sector is highly export oriented and its development is strongly influenced by global market trends. Therefore, global integration processes, first of all Ukraine's entry in WTO, will provide the sector with significant potential benefits, such as:

- Reduction of limitations on the access of Ukraine's metallurgy products to principal foreign markets.
- Better opportunities for protecting the interests of Ukrainian producers under WTO procedures.
- Improved possibilities for attracting foreign investments.
- Improvements in the domestic business environment due to stabilization and better transparency of the legal and regulation framework.

Trade liberalization will not threaten Ukrainian producers' operation on the national market as far as they preserve significant cost advantages. At the same time, Ukraine's entry into the WTO will require the limitation and further abolition of specific arrangements that benefit domestic producers, as well as the leveling of competition conditions for national enterprises.

Today's policy of government support for individual industries and enterprises should be replaced by a new industrial policy that would focus on creating incentives for private investments in an environment of equal conditions for all market participants, as well as on creating real sector support mechanisms that would meet WTO requirements. In particular, a new governmental policy in the sector should be based on the following principles:

- Transparent and maximum competitive privatization, including in the coal industry.
- Withdrawal from administrative intervention in market mechanisms (administrative limitation of exports, raw material pricing and transportation tariffs).
- Tariff policy reforms in the energy industry and a gradual transfer to tariffs that are based upon estimates of full costs (LTMC).
- Concentration of budgetary support to the sector for programs that tackle elimination of outdated capacities, implementation of social and environmental measures in vulnerable regions, and financing of research infrastructure projects.

The future competitiveness of Ukrainian metallurgical companies will largely depend upon the rate of restructuring of the existing major operators in the sector, including changes in their corporate management mechanisms. On the one hand, the existing sectoral structure with a limited number of dominant vertically-integrated corporations is currently a source of considerable cost advantages for the sector and provides Ukraine with significant economic and fiscal benefits. On the other hand, it may become a source of non-competitive tendencies and a barrier for sectoral restructuring. The situation has to be monitored closely. As a first step, existing Ukrainian legislation should be amended to take into account the realities of operating large private corporations. At the moment, Ukrainian FIGs remain mostly informal structures, and this makes it complicated to monitor their operations and behavioral patterns. The legislation should allow for legalization of FIGs, which should include introduction of consolidated reporting and taxation arrangements.

Ukraine's Accession to the WTO— Completing the Negotiations and Maximizing the Benefits of Membership

Ukkraine has been seeking membership in the World Trade Organization (WTO) for over a decade and now appears to be reaching the end of accession negotiations. This chapter takes stock of reforms Ukraine has made and identifies the remaining obstacles to accession. It summarizes findings from several recent specialized reports produced by international consultants as part of various ongoing donor assistance programs. It also suggests ways that Ukraine can meet the challenges posed by implementation of WTO agreements so as to maximize the benefits of its membership.

The main messages presented in this chapter are the following:

- Ukraine has introduced a considerable number of new laws that move the country closer to compliance with WTO norms. However, to complete accession negotiations, Ukraine will need to concentrate first on completing remaining legal reforms.
- Passing the remaining legislation will require the direct involvement of the top political leadership of the country. Mobilizing political constituencies behind these legal reforms and providing stronger internal support for the negotiating team are the key ingredients to completing accession negotiations; this is not a problem of inadequate technical assistance.
- Negotiating remaining bilateral market access protocols is a lower priority task at this stage: tariff concessions to trade partners do not compensate for a weak domestic institutional environment.
- Ukraine will benefit from WTO agreements on intellectual property rights, standards, and customs in the long run only if the country accelerates institutional reforms; donor assistance will be critical to support these reforms over time.

The first half of the chapter looks at the accession negotiations, reviewing what has been done to date and what remains to be done. WTO membership is not an end in itself, so the second part addresses institutional reforms needed for Ukraine to benefit economically from WTO membership.

WTO Accession Negotiations

WTO Accession Requirements

What must a country do to join the WTO? The formal requirement is that the candidate country demonstrates that its policies conform to the General Agreement on Tariffs and Trade (GATT) and other WTO agreements. First, the candidate country submits a written application and a complete description of the all policies that affect international economic transactions (the Memorandum of the Foreign Trade Regime). The WTO convenes a working party (made up of all interested WTO members) to consider a new application. This working party then negotiates the terms and conditions of membership with the candidate country; these become the protocol of accession. When the working party is satisfied, it recommends the application to the WTO General Council (the collection of all WTO members). Once approved, the applicant must ratify the protocol of accession within three months.

The salient feature is that new members negotiate the conditions of their membership.⁶⁴ There are no WTO rules specifying universal, objective membership criteria such as, for example, maximum tariff levels or maximum amounts of domestic support to agriculture. Each new member's protocol of accession is different. Nevertheless, some trends in membership requirements have emerged during the WTO's first decade. In general, new WTO members have agreed to:

- Bind all tariff lines at levels close to currently applied rates.
- Bind at zero (permanently eliminate) all “other duties and charges”—taxes, surcharges, fees, and the like imposed on imports.
- Bind at zero all export taxes and any export subsidies on manufactured goods.
- Commit to keeping domestic support to agriculture at or below *de minimis* levels.⁶⁵
- Make binding commitments to provide non-discriminatory access and national treatment in most major service sectors.
- Forego transitional periods for implementing WTO regulatory agreements (for example, TRIPS) that were given to developing and least developed countries in the Uruguay Round.

To some extent, these trends reflect an escalation in the demands that existing WTO members place on candidate countries. Some complain that new members must commit to greater liberalization and internal reforms than existing members agreed to undertake

64. Moreover, only the candidate country makes concessions during accession negotiations.

65. The *de minimis* is a threshold used when calculating levels of trade distorting subsidies, which varies by country. In general, developed countries are to keep the total value of trade-distorting domestic support below five percent of the value of agricultural output, while developing countries commit to a 10 percent *de minimis*. Ukraine is negotiating accession as a developed country.

in past negotiating rounds. For example, most candidate countries are pressured to join the Government Procurement Agreement, a code that is optional for current members.⁶⁶ WTO members have agreed to moderate their demands with respect to least developed country (LDC) candidates. This does not apply to Ukraine, however.

What's Been Done

There are two tracks to the WTO negotiations: (i) legal reforms to ensure conformity with WTO rules, which are negotiated multilaterally through the working party process; and (ii) market access commitments, which take place bilaterally. This section reviews progress made by Ukraine on both fronts.

Ukraine submitted its application to join the GATT in 1993 and its memorandum on its foreign trade regime in 1994. Progress stalled in 1998–99 after several rounds of negotiations. The past three years have seen a renewed commitment by Ukraine to complete the negotiations and reforms necessary for WTO accession. Negotiators have met regularly with the working party and the pace of signing bilateral market access protocols picked up noticeably in 2003.

A draft report of the working party was issued in September 2004.⁶⁷ Once completed, the working party report will contain information about policies Ukraine has undertaken or promised to implement during the course of negotiations. The working party held its thirteenth meeting in September 2004. The next is tentatively scheduled for the first quarter of 2005.

Market Access. Ukraine set import tariff rates fairly low after independence and average rates have remained more or less at the same level during the course of negotiations (see Chapter 2). During the course of accession negotiations Ukraine also eliminated a number of trade barriers, including:

- All quantitative import restrictions on trade in goods except as regards goods affected by safeguard and anti-dumping measures.
- Discriminatory excise taxes on many alcoholic beverages and petroleum products.
- Local content requirements in auto manufacturing.

The Government has gradually increased protection of certain agricultural products during the course of negotiations, however, and it also introduced various export restrictions. These measures have become a source of tension in the negotiations, as discussed below.

66. Signatories to the Government Procurement Agreement (GPA) agree to certain disciplines designed to increase transparency of the process and to expand market access to other signatories (countries that do not sign the GPA do not gain more access to tenders in countries that have signed). Signatories include the EU (all 25 members) and most other OECD countries. Several CIS and Eastern European countries are negotiating accession (Moldova, Bulgaria, Georgia, Kyrgyzstan, and Albania) or are observers to the GPA (Croatia and Armenia), suggesting a willingness to join in the future. The other major countries who are observers or are negotiating accession include China, Taiwan, and Turkey.

67. WTO, "Draft Report of the Working Party on the Accession of Ukraine to the World Trade Organization," report number WT/ACC/SPEC/UKR/rev.1, Geneva: WTO, September 2, 2004. An earlier draft of this appears on the MEEI's website at http://www.me.gov.ua/getfile.php?name=bin1267_1.zip.

Legal Reforms. During the past decade Ukraine has introduced many changes to bring its trade regime into conformity with WTO norms and to accommodate requests of its WTO working party. Ukraine's WTO filings list over 200 existing and draft laws relevant to WTO accession. Below are the highlights of reforms made in several key areas.

Customs. The customs code was recently prepared to bring Ukraine in compliance with the WTO Agreement on Customs Valuation, the TRIPS Agreement, and GATT norms on fees. This new customs code went into effect on January 1, 2004.⁶⁸ Among other things, it eliminates the use of minimum values, establishes fees based on the cost of rendering services, and empowers customs officials to enforce intellectual property rights laws. The Government has been drafting additional amendments to the Customs Code to address several remaining issues, such as, for instance, enforcement of rules of origin.

Intellectual Property Rights. Ukraine has acceded to major international intellectual property rights conventions. Between 1995 and 2003, Ukraine had drafted or adopted 37 laws to establish rights for specific forms of intellectual property (for example, plant varieties, integrated circuit designs, and utility models).⁶⁹ The Government also revised the basic legal codes (civil code, criminal code, customs code, and civil and criminal procedures codes) to enforce intellectual property rights. Ukrainian negotiators report that 100 normative by-laws were adopted to regulate intellectual property rights protection. Finally, the Government has introduced policies that go beyond the literal requirements of TRIPS to satisfy concerns raised by the working party, including licensing, and other controls on trade in optical discs and their components.

Standards. Since 1995, Ukraine has drafted or passed about two dozen laws related to the WTO Agreements on Technical Barriers to Trade (TBT) and on Sanitary and Phytosanitary Measures (SPS). Some laws reformed the institutional structure of the standards regime.⁷⁰ The Law on Accreditation, for example, created an accreditation body that operates independently of conformity assessment and standardization organizations in line with international norms. In addition to administrative reorganization, Ukraine has begun incorporating international (for example, ISO) and Western European standards into Ukrainian standards. The Government is currently working with the United States Agency for International Development (USAID) to review all regulations covered by the SPS Agreement. As of October 2004, new SPS framework laws are in draft form. The European Union's TACIS program has been working with individual testing facilities to help them gain recognition from European accreditors.

Services. Ukraine passed framework laws governing regulation of key service sectors, such as banking, insurance, auditing, and legal services. In 2001, Ukraine passed laws eliminating the 49 percent cap on foreign ownership in various service sectors (such as insurance, telecommunications). Draft laws were prepared to amend the Law on Banks and Banking Activity to permit the establishment of foreign banks' branches in Ukraine and disallow state ownership of commercial banks. Other draft laws are pending in the Rada that would eliminate citizenship requirements in auditing and legal services.

Market Access Offers. Ukraine has signed bilateral market access protocols with 25 WTO members, as of September 2004. These are listed in Table 5.1. Negotiations continue with Australia, China, Dominican Republic, Taiwan, Honduras, Iceland, Japan, Turkey, Moldova,

68. Provisions on fees take effect in January 2005.

69. Estimated based on information reported by Ukraine to the WTO, "Laws and Draft Laws Relevant to Ukraine's Accession to the WTO," Report number WT/ACC/UKR/111/Add. 1/Rev. 1, Geneva: WTO, August 12, 2003.

70. The main examples include the Laws on Accreditation, Standardization, and Conformity Assessment. These were passed as one step toward harmonizing Ukraine's laws with those of the European Union.

Panama, Norway, Kyrgyz Republic, Ecuador, Columbia, and the United States. The table shows that the pace of negotiations picked up sharply in 2003.

Ukraine submitted a consolidated offer on tariffs in 1999, which it revised in 2001 and 2002. These offers incorporate on an MFN basis all commitments made during the bilateral negotiations. The tariff offer promises significant liberalization in ad valorem tariffs. Information provided by the Ministry of Economy and European Integration (MEEI) indicates that the average bound rates will fall from an initial level of 9.04 percent to 6.28 percent over an eight-year transition period. The maximum bound rate will be 10 percent for most manufactured goods and 20 percent for most agricultural products. Tariffs will be bound at ceiling levels close to the currently applied MFN rates in most chapters of the tariff code: 57 out of 96 total chapters will have average bound rates below current average applied rates at the beginning of the eight-year transition period; 74 chapters will have average bound rates below current average applied rates at the end of the transition period. Ten chapters will be bound at zero. The tariff on sugar, the subject of much discussion during working party meetings, will be bound at a ceiling of 50 percent.⁷¹ Ukraine's tariff offer also includes joining 16 of the 19 sectoral initiatives, including in information technology, steel, textile and clothing, chemical harmonization, and non-ferrous metals.

Liberalization will also come through the conversion of specific tariffs on many agricultural products to ad valorem duties. Duty rates will then be reduced substantially. Table 5.2 shows the planned reductions in tariff for certain agricultural products, after converting the current specific tariffs to their ad valorem equivalents.

WTO members reportedly are quite pleased with Ukraine's ser-

Table 5.1. Bilateral Market Access Protocols Signed

2004		
Lithuania	Malaysia	Paraguay
Argentina	Switzerland	
2003		
Brazil	Bulgaria	Cuba
Czech Republic	Estonia	European Union
Hungary	Israel	Poland
Slovak Republic	Thailand	
2002		
Canada	Georgia	India
Latvia	Slovenia	South Korea
Before 2002		
México	New Zealand	Uruguay

Source: Media reports through October 15, 2004.

Table 5.2. Planned Reductions in Agriculture Tariffs

Commodity	Percentage Tariff Reduction
Sunflower seed	90
Sunflower oil	80
Potatoes	67
Sugar	50
Meat	50
Butter	50

Source: Reported by Ukrainian negotiators in WTO report number WT/ACC/UKR/110/Add. 1, October 24, 2002.

71. WTO, "Review of the Latest Achievements in Bilateral Negotiations on Market Access for Goods and Services and Enactment of Legislation," Report number WT/ACC/UKR/109, Geneva: WTO, April 26, 2002.

vices offer. Ukraine submitted its first services offer in February 1997. It has revised this offer several times, most recently in April 2004. Bilateral negotiations on services have been completed with most members. During the course of negotiations, Ukraine has increased the breadth and depth of its services offer, which now makes commitments in 139 out of 155 services subsectors. It includes full market access commitments in key sectors such as banking and telecommunications. Many limits on market access listed in the initial services offer have subsequently been eliminated. For example, the 1997 offer restricted foreign ownership of service providers operating in many communications, insurance, and transport subsectors to 49 percent; in the current offer, a foreign equity cap exists only in news services.

Remaining Roadblocks to Accession

Ukraine has worked quite actively in its pursuit of WTO membership during the past few years, most visibly in the negotiation of bilateral market access protocols. Yet this level of activity has not been matched by concrete progress. A final decision on accession appears to be still some distance away. Thus, it should be admitted that the accession process cannot be completed in 2004 (as was envisioned by the earlier government decision). The next section focuses on steps Ukraine may need to take to reach the end of negotiations.

Discussions with those close to negotiations suggest that WTO members are generally satisfied with Ukraine's market access offers, although a few trade policy measures cause frictions in the negotiations. However, the main issues still outstanding in the negotiations lie elsewhere. WTO members are primarily concerned about more general problems with economic conditions in Ukraine, for example, high transaction costs caused by weak legal institutions, vested interests, corruption, frequent changes in government policies, lack of transparency, and so forth. These do not result from discriminatory trade practices and therefore violate no WTO rules. They do, however, raise the costs for those wanting to export to or invest in Ukraine, making them a trade policy issue for WTO member countries. More importantly for the purposes of this study, they create unnecessary barriers to Ukraine's integration into the world economy. Finally, some complain about what they perceive as a lack of clarity in Ukraine's trade policy. This lessens the credibility of the Government's commitment to implement promises made during accession negotiations.

Market Access Barriers

Ukraine has reportedly addressed most members' concerns about tariffs and other market access barriers. About 95 percent of tariff rates in Ukraine's goods offer have been accepted by other WTO members (OECD 2003). Nevertheless, a few measures continue to attract controversy and pose obstacles to completing accession negotiations. Chief among these are interventions in sugar trade and export duties on metal scrap, hides, and certain agricultural products.

Sugar. The Ukrainian government uses several measures to intervene in sugar markets:⁷²

72. Such policies are not unique to Ukraine, of course.

- The 1999 Law on Regulation of Sugar Production and Sale allows imports of raw sugar only on the condition that all output of refined sugar produced from this imported inputs is subsequently exported.
- A tariff rate quota (TRQ) is imposed on sugar imports: the 125,000 tons of within-quota imports face a relatively low € 30/ton duty and a high € 300/ton duty is levied on any imports in excess of the quota.⁷³ Licenses to import under this quota were auctioned off for € 60/ton.⁷⁴ At current world spot prices, the ad valorem equivalent of the within-quota duty plus license is 38 percent and the above-quota duty is equivalent to a 127 percent ad valorem tariff.⁷⁵
- The Government sets minimum procurement prices on sugar beets and sugar refined from beets in domestic markets.⁷⁶ In WTO filings the Government estimated that price controls on sugar beets represented a subsidy (using the WTO's methodology) that averaged 59 percent of the total value of beet production during 2000–02.⁷⁷

WTO members contest these measures, complaining that they violate rules on subsidies, local content requirements, and national treatment. The government acknowledges the requirement to export all sugar refined from imported cane indirectly violates the Agreement on Agriculture's prohibition on the use of non-tariff measures.⁷⁸ Ukraine's negotiators dispute that other policies violate WTO rules, however, and they defend them based on the need to provide economic support for the domestic sugar industry. Whether or not a given policy is WTO-compliant ultimately depends on the findings of a WTO dispute settlement panel. In the absence of such a ruling on Ukraine's sugar policies, this debate involves pitting one lawyer's interpretation against another's. As a practical matter, this legal debate is not central to either completing the accession negotiations or determining the best economic policy for Ukraine. The combination of trade restrictions and domestic price interventions distorts Ukraine's sugar markets, leading to misallocations of land, labor and capital, and transferring money from a large number of consumers to a small number of sugar producers. Even if there are externalities that prevent a competitive domestic market from emerging or social

73. The within-quota quantity of 125,000 tons represents a small fraction of total domestic demand, which is estimated at 1.8 million tons (*Dow Jones*, October 12, 2004). The GOU recently rejected a proposal to relax the quota during the coming year (*Ukrainian News*, September 15, 2004).

74. *Reuters* September 8, 2004.

75. The International Sugar Organization reports that the closing price of sugar was 8.8 cents/pound on October 13, 2004. (*Dow Jones Commodity Wire*, October 14, 2004). At a dollar/Euro exchange rate of 0.82, this translates into a price of €236 per metric ton. Sugar prices are extremely volatile, however, and the economic impact of a specific duty varies with the price. In May 2004 the world price was 6 cents/pound (International Sugar Organization, "Quarterly Market Outlook," September 2004). The ad valorem equivalent of the quota license and duty on within-quota imports is 56 percent when measured at this world price, and the above-quota duty is equivalent to an ad valorem tariff rate of 186 percent.

76. According to news reports, the minimum price for beets is currently US\$31/ton (*Reuters*, October 14, 2004), and the Government has been buying and selling sugar to stabilize the domestic market price at UAH 2,370/ton, which is around €445/ton at current exchange rates—well above the world price (*Dow Jones Commodity Wire*, October 12, 2004).

77. WTO, "Accession of Ukraine: Checklist of Issues, Addendum," report number WT/ACC/UKR/110/Add.2, WTO: Geneva, June 20, 2003, p. 167.

78. WTO, "Accession of Ukraine: Additional Questions and Replies," Report number WT/ACC/UKR/114, Geneva: WTO, March 17, 2004.

policy objectives that require transferring resources to sugar producers, trade restrictions and price controls are not efficient ways to solve these problems.

Ukraine's tariff offer relaxes the TRQ on sugar, expanding the quota to 260,000 tons/year and setting customs duties at 2 percent on the within-quota imports and at 50 percent on above-quota shipments.⁷⁹ WTO filings indicate that at least one member has asked Ukraine to forego the use of TRQs entirely. WTO rules currently permit existing members to use TRQs on agriculture, although some countries have proposed eliminating them and many candidate countries have agreed not to use them.⁸⁰ Trade economists oppose TRQs because their economic effects are far less transparent than those of a simple tariff and because they require administrative interventions to allocate quota rights which may themselves be costly.

Ukraine's economy would benefit from gradually replacing all existing instruments of protection of the sugar market with those that are more WTO-consistent and create fewer market distortions. The TRQ and non-tariff trade barriers should be replaced with a simple tariff. The minimum price regime should be replaced with other forms of support, such as programs for regional development programs in respective regions, direct income support for farmers that is decoupled from current production levels or prices, and expenditures on environmental protection and agricultural research.

Export Restrictions. Export restrictions represent a second market access dispute. Ukraine employs export taxes, outright bans, minimum prices, and customs fees that act as additional export taxes. In 1996, Ukraine reintroduced export duties on the following agricultural products (after having eliminated them in December 1993):

- *Live cattle and sheep:* ad valorem duties of 50–75 percent with minimum specific duties of € 390–1,500 per ton, depending on the type of animal.
- *Skins or hides of cattle, sheep and pigs:* ad valorem duties of 27–30 percent with minimum specific duties that vary with the type of skin.
- *Flax, sunflower, and false flax seeds:* ad valorem duties of 17 percent.

Ukraine also introduced a € 30/ton export duty on scrap metal on January 1, 2003 (and at times it has maintained a complete ban on exports of various types of scrap metal). In addition, the Government charges a customs clearance fee for scrap metal that is five times higher than similar fees on other exports.⁸¹ Ukraine's export license fees in general come under fire because the fees are set on an ad valorem basis (0.1 percent of the transaction value), which violates the GATT norm that such fees must correspond to the cost of providing a service. Finally, the Government employs minimum indicative prices to simplify calculation of export duties and prevent fraud.⁸² These various export restrictions drive

79. The price of quota licenses must be added to the statutory tariff rate to determine that full level of protection on within-quota imports. The auction price for quota licenses will naturally change as the statutory duty falls and the quota expands.

80. None of the CIS members that have entered the WTO to date (Armenia, Moldova, Georgia, and Kyrgyzstan) employ TRQs, although the record in general on TRQs and accession is more mixed—8 of 18 new members entering through 2003 included TRQs in their goods schedules (Brink, 2003).

81. This fee is scheduled to expire on January 1, 2005.

82. Minimum prices are also used for export of steel and other products subject to anti-dumping duties in importing country markets.

down domestic prices below world prices, favoring domestic users at the expense of foreign buyers.⁸³

Some WTO members, most notably the European Union, complain that Ukraine's export taxes are too high—so high as to be prohibitive in some cases. They have requested that Ukraine eliminate all export duties by the date of accession and bind them at zero (such that commit never to reintroduce them in the future). Ukraine defends these taxes on classical mercantilist grounds—that they discourage raw material exports to encourage more domestic processing. Negotiators justify the export tax on oilseeds, for example, because this reduces the domestic price of seeds and thereby increases domestic production of oils, margarine, and fats. A tax on ferrous metal scrap has a similar effect on steel production. Although this alters domestic prices in favor of domestic manufacturing, it does nothing to help favored industries operate more competitively. Other economic reasons against using export taxes are presented in Chapter 2.

While the GATT does not prescribe export taxes *per se* (any more than it bans import tariffs), their use is the topic of several cases before WTO dispute panels.⁸⁴ For example, the EU has requested consultations (the first stage of the WTO dispute settlement process) with several countries that impose export taxes on animal hides: India (1998), Pakistan (1997), and Argentina (1999). Some of the other CIS countries (for example, Kyrgyzstan) that have joined the WTO agreed to bind export taxes at zero upon accession. Even if Ukraine succeeded in entering the WTO with its export taxes intact, it would remain vulnerable to WTO-legal trade sanctions in the future. One should also note that very few other countries in the world employ export duties. Most that do are the least developed countries. In only one case (Ivory Coast) do export duties represent a significant share of government revenues (13–15 percent during 1997–2001).⁸⁵

Ukraine will need to come to some accommodation with WTO members on these market access issues if it is to gain their approval for WTO accession. One could argue that, apart from *ad valorem* licensing fees, these measures do not violate WTO rules *per se*. Instead these disputes are more akin to standard WTO negotiations over the level of import tariffs: import-competing domestic industries want protection, foreign exporters want protection eliminated, and the Government must weigh political costs of supporting certain domestic producer groups against the economic benefits to the economy as a whole. Sugar is a clear case where politicians need to determine whether helping one domestic interest group is more important than achieving broader economic policy priorities. Does Ukraine's economic future depend critically upon sugar? If so, it must find ways of supporting the development of the sugar industry that do not create frictions with trade partners and minimize costs imposed on consumers.

Support for domestic automobile industry. The Ukrainian Law “On Stimulation of Automobile Production” adopted in 1997 provided domestic automobile producers with a

83. For example, the president of a Ukrainian scrap metal association reported that the Government's export restrictions kept domestic prices at €100/ton, well below the world price of 160 Euro/ton (“Squaring the Circle,” *Metal Bulletin*, November 20, 2003).

84. One should note that taxing exports is no less a departure from free trade than taxing imports. In principle they are even identical: an across-the-board *ad valorem* import tariff is equivalent in all respects to a uniform export tax of the same rate, holding other factors constant and assuming that tax revenue is redistributed to consumers in lump-sum fashion (the Lerner Symmetry Theorem).

85. *World Development Indicators*, 2003.

major package of tax exemptions. The new Law “On Development of Automobile Industry in Ukraine” adopted in March 2004 was expected to bring government policies in the sector in line with WTO norms. However, this did not happen. For the companies in the sector which had been established before 2004, the new Law extended the period of effectiveness of their tax privileges for an additional five years. *De facto*, the Law established a dual investment regime in the sector, which is much less favorable to all potential new entries. Simultaneously, a new amendment to the Law “On the Customs Tariff” was passed that introduced significantly higher customs tariffs on imports of automobiles and parts.

Principal Domestic Reform Issues

WTO members have made it clear that Ukraine’s concessions on market access will not substitute for progress in implementing legal and institutional reforms. The major ones discussed here are standards, intellectual property rights, and agriculture subsidies.⁸⁶

Standards. The domestic standards regime is the set of institutions that arguably least conform to WTO principles. Despite passing new framework laws, Ukraine’s standards regime continues to exhibit many traits inherited from the Soviet GOST system. In practice, standards are set by the state, most existing standards are treated as mandatory requirements, and firms generally must satisfy these requirements through state certification. Mandatory technical specifications substitute for supplier liability laws. They are also used to regulate product quality in Ukraine, a task performed by consumer choice in market economies. The national standards agency views its role as primarily a regulatory enforcer rather than a service provider. It continues to perform many functions that are usually performed by the private sector—both private enterprise and civil society—institutions in market economies. Taken as a whole, the existing standards regime adds to the cost of doing business in Ukraine and hinders the country’s integration into the world economy. This is clearly evident in business surveys (see Chapter 2) and problems with the standards regime have therefore become a negotiating issue for Ukraine’s trade partners.

The official negotiating record contains many complaints by WTO members about overly restrictive technical regulations in Ukraine. A frequent rebuttal is that these regulations are applied to foreign and domestic firms without partiality and are therefore WTO-compliant. This simply hurts both domestic and foreign firms, of course, which is not the sort of national treatment trade negotiators had in mind when they drafted the standards codes. WTO members have voiced complaints about some specific measures as well as the general procedures that are employed in Ukraine. The most common complaints are the following:

- Until recently, all Ukrainian standards were mandatory and Ukraine had no technical regulations and standards in the conventional usage of these terms. (see Box 5.1).
- Risk is not adequately taken into account by the existing system. All agricultural products require certificates of conformity.⁸⁷ All consignments of imported food

86. WTO members have also taken issue with many other internal policies that affect trade. These include issues such as industrial subsidies, trade safeguards procedures, currency convertibility, and the operation of free economic zones.

87. “Agriculture” is defined as goods in Chapters 1–24 of the Harmonized System.

Box 5.1. Technical Regulations versus Standards

“Standards” and “technical regulations” have very precise definitions in WTO agreements. Following international convention, the WTO defines a standard as a “document approved by a recognized body that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory.” A technical regulation “lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory.”

Technical regulations are promulgated by governments. Standards, in contrast, can be developed by any body of experts, and as international standards are generally developed through consensus, they are self-enforcing.

The WTO limits the legitimate use of technical regulations to certain public policy objectives that are unrelated to trade: ensuring national security; the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment. Mandatory technical requirements that have other objectives and restrict trade can be challenged by other WTO members.

products of animal origin must undergo laboratory testing. All imports are subject to radiological testing.

- Multiple agencies require certification or inspection of certain products.⁸⁸
- Measures are not “least trade restrictive.” For example, Cabinet of Ministers Resolution No. 1611 requires that goods subject to mandatory certification be accompanied by the original, state-issued certificates.
- Sanitary standards are too restrictive and not necessarily science-based. WTO members point to a long list of banned food additives and restrictions on dried-egg products, pork, red meat, and poultry as examples.

In general, Ukraine presently does not recognize equivalent regulations of other countries. Instead Ukraine relies solely on mutual recognition agreements (MRAs) as an alternative to local certification. WTO agreements explicitly encourage unilateral recognition of equivalent regulations as an alternative to MRAs.⁸⁹ In recent years many countries have turned to multilateral accreditation arrangements (for example, European Accreditation and International Laboratory Accreditation, due in part to frustration with the lack of success of MRAs as an avenue for facilitating trade. The State Committee of Ukraine on Technical Regulations and Consumer Policy (DSSU) defends its policy of recognizing conformity assessments conducted either locally or under an MRA on the grounds that this is necessary to protect its markets from low quality and unsafe products.

88. Ukrainian negotiators acknowledged this in writing: “Thus, for example, imported food of animal origin was subject to certification by the Ministry of Health and authorization by the State Committee on Standardization, the certificate was checked at the Health Border Point and the product, including collection of a sample, at the Veterinary Border Point, followed by surveillance in the market by the Epidemiological Unit, the Veterinary Service and the Association of Consumers’ Rights.” (WTO, “Draft Report of the Working Party of the Accession of Ukraine to the World Trade Organization,” Report Number WT/ACC/SPEC/UKR/5, Geneva: WTO, March 16, 2004, paragraph 131).

89. See Article 6.1 of the TBT Agreement.

In the absence of an MRA, only Ukrainian residents may conduct conformity assessment in fulfillment of mandatory state standards.⁹⁰ This restriction is inconsistent with Ukraine's services offer (specifically those made in the technical services sector) and WTO agreements.⁹¹ Apart from its importance as an obstacle to WTO accession, this practice reduces the competitiveness of the domestic market for conformity assessment services, thereby raising the cost of doing business in Ukraine, which in turn makes Ukrainian goods less competitive in world markets.

The WTO-mandated enquiry points for the TBT and SPS agreements are not yet fully operational. These entities are expected to notify other WTO members about new regulations and respond to members' comments, and they increase the transparency of the domestic standards regime. WTO members have pressed Ukraine to establish functioning enquiry points by the date of accession. The Government has taken some steps to do so and is receiving some assistance from foreign donors.

Some problems in these areas can be addressed quickly. For example, the MEEI has the authority to shorten the list of goods requiring mandatory inspection.⁹² DSSU reports plans to eliminate several categories of goods from this list.⁹³ However, it will take time to review all SPS and TBT measures and eliminate those objectives that can be achieved in a less trade-restrictive manner (as required by the TBT agreement). USAID is funding a project to review all laws and government measures relevant to the SPS agreement and recommend steps to bring them into compliance. This project is expected to conclude in 2005. The process of reviewing standards relevant to the TBT agreement will take much longer due to the large number of existing mandatory technical specifications inherited from the USSR.

As of September 2004, efforts were underway to consolidate all existing rules governing SPS provisions, which currently appear in over a dozen laws and decrees, into three framework laws—one on veterinary medicine, one on food safety, and a third dealing with plant quarantine. These three would become the only laws governing such issues, and they would incorporate all requirements of the WTO SPS Agreement, including procedural and transparency requirements, and would cover the following areas:

- WTO terminology.
- Harmonization.
- Equivalence in measures.
- Risk assessment and appropriate level of protection.
- Adaptation to regional conditions.
- Transparency—availability of enquiry and notification points.
- Inspection, control and approval procedures.

90. Articles 10 and 12 of the Law on Conformity Assessment.

91. Article 6.4 of the TBT Agreement encourages WTO members to recognize certificates issued by other members' conformity assessment bodies.

92. The latest list of such goods submitted to the WTO working party is 80 pages long. WTO, "Goods Requiring Customs, Sanitary, Veterinary, Phytosanitary, Radiological or Ecological Verification or Certificate of Conformity upon Import or Transit," Report number WT/ACC/UKR/105/Rev. 1, Geneva: WTO, October 16, 2002.

93. These include tractors and agricultural machine engines, electrical machines, cinema and photographic equipment, and an additional 20 products with low consumer risk from other product categories.

The new draft SPS laws provide for the radical reduction in documentation requirements for imported food products, clear delineation of authorities between different government agencies, and streamlined border control procedures.

The Government could take additional steps to demonstrate its commitment to reforming the standards regime and, thereby, increase the momentum of WTO accession. The short-term priority measures are as follows:

- Amend the laws on conformity assessment and accreditation to eliminate the requirement that only Ukrainian firms may conduct conformity assessment in the legally regulated sphere.
- Identify a set of low-risk products for which no Ukrainian conformity assessment certificate will be required if the product has already been tested to international standards in the country of origin (for example, if it bears the EU's mark).
- Establish and maintain a website with draft texts of all proposed technical regulations translated into at least one of the three official WTO languages.

Intellectual Property Rights Protection. The highest profile obstacle to accession at the moment relates to the dispute over the production and export of counterfeit optical discs (CD-ROMs and DVDs with movies, software, and music). Ukraine is allegedly one of the world's leading violators of intellectual property rights in the area of optical media and one of the largest exporters of counterfeit optical discs.⁹⁴ This dubious honor aggravates trade relations with the US, which in 2001 named Ukraine the worst offender on its list of countries employing (what it considers to be) unfair trade practices. As a consequence, the United States revoked Ukraine's access to duty-free treatment under the Generalized System of Preferences (GSP)⁹⁵ in 2001 and imposed punitive customs duties worth \$75 million annually on imports from Ukraine. The United States renewed these sanctions in 2004. It is inconceivable that WTO members will approve Ukraine's membership until this issue has been addressed to their satisfaction.

As noted above, Ukraine has passed many new laws in recent years to bolster intellectual property rights. At the April 2004 working party meeting, several key members praised Ukraine's progress in conforming its laws to the TRIPS agreement. WTO members continue to insist, however, that Ukraine pass revisions to the optical disc licensing law as a condition of WTO accession.⁹⁶ This bill has been held up in the Rada on procedural grounds and it is difficult to predict when the Rada may finally approve it.

Working party members also complain that, in their opinion, enforcement of new IP laws remains weak. Specific problems cited are the following:

94. The US-based International Intellectual Property Alliance (IIPA), an advocacy organization representing copyright industries, estimates that its members have lost US\$200–250 million dollars annually in recent years due to copyright piracy in Ukraine (IIPA, "2004 Special 301 Annual Report," Washington: IIPA, February 13, 2004).

95. The Generalized System of Preferences is a system of non-reciprocal tariff treatment granted by industrial countries to many products from developing countries. Each industrial country sets its own rules on which goods from which countries will qualify for GSP treatment. The United States' GSP program grants duty-free treatment to approximately 4,650 products.

96. "On Introducing Amendments to Certain Legislative Acts of Ukraine," 24 February 2003, No. 3155. While not addressing intellectual property rights per se, the law would help the GOU monitor optical disc production and, by extension, crack down on exports of counterfeit discs.

- Law enforcement agents and judges lack sufficient expertise in intellectual property matters.
- Civil and criminal procedures codes have provisions for ex-parte search and seizure which have never been used for these purposes.
- The Ministry of Health does not validate patents when issuing clearances to manufacture pharmaceuticals.
- Police and customs officials, in practice, require intellectual property rights holders to file a complaint before launching an investigation even though current laws grant police ex-officio authority to initiate intellectual property cases on their own and confiscate counterfeit items.

The Government openly acknowledges many of the shortcomings caused by lack of administrative capacity. The State Department of Intellectual Property reports that it has been working with the EU to train judges, for example. Improving the capacity to manage and enforce new laws will require more technical assistance.

The single most important step Ukraine can take in the short run to facilitate WTO accession is for the Rada to pass the optical disc licensing law. A second important measure would be to revise law enforcement operating procedures to take practical advantage of powers provided by recently adopted intellectual property rights laws.

In the long run, however, the GOU must also pay attention to the commercial dimension of intellectual property. As discussed below, stronger enforcement of intellectual property rights, in and of itself, does not create economic incentives to invest in knowledge creation or new technologies. This is not a legal problem but a commercial problem—one of turning new ideas into marketable products. And this is where Ukraine will ultimately benefit from legal reforms mandated by the TRIPS agreement.

Agricultural Subsidies. Domestic subsidies to agriculture create another source of friction in Ukraine's accession negotiations. On the surface, negotiators are debating the choice of base years to use for computing base levels of the aggregate measure of domestic support for agriculture (AMS).⁹⁷ Ukraine wants to use 1994–96 as the base year; many WTO members argue it should use a more recent period. The WTO Agreement on Agriculture introduced a set of benchmarks for WTO members in 1994–96 at the conclusion of the Uruguay Round, but this did not address how new members were to be treated. The WTO Secretariat's guidelines for accession countries suggest (but does not require) using the three years prior to the commencement of a candidate country's negotiations on agriculture. On these grounds, Ukraine argues that 1994–96 are the appropriate years. WTO members counter that these years were characterized by unusual macroeconomic fluctuations, that recent years are more representative of "normal" economic conditions, and that too much time has elapsed since 1996 to justify using those years as the basis for future subsidy commitments. Table 5.3 shows commitments made by other countries that have joined the WTO since the Uruguay Round. Most countries used base years that were more recent than what Ukraine proposes, but the historical record remains rather mixed on this point.

97. AMS includes tax breaks, price supports, and off-budget assistance targeted at the production of given crops, not just explicit subsidies.

Table 5.3. Agriculture Commitments by New WTO Members, 1995–2003

Member	Accession Year	Base Years	<i>de minimis</i> level	Base AMS exceeds <i>de minimis</i> ?	Reduction commitment
Cambodia	2003 ^a	1998–2000	10 percent	no	
Nepal	2003 ^a	1996–1998	10 percent	no	
Macedonia	2003	1998–2000	5 percent	yes	0 percent
Armenia	2003	1995–1997	10 percent/ 5 percent ^b	no	
Taiwan	2002	1990–1992	5 percent	yes	20 percent
China	2001	1996–1998	8.5 percent	no	
Moldova	2001	1995–1997	5 percent	yes	20 percent
Lithuania	2001	1995–1997	5 percent	yes	20 percent
Croatia	2000	1996–1998	5 percent	yes	20 percent
Oman	2000	1994–1996	10 percent	no	
Albania	2000	1996–1998	5 percent	no	
Georgia	2000	1996–1998	5 percent	no	
Jordan	2000	1994–1996	10 percent	yes	13 percent
Estonia	1999	1995–1997	5 percent	no	
Latvia	1999	1994–1996	8 percent/ 5 percent ^b	no	
Kyrgyzstan	1998	1994–1996	5 percent	no	
Panama	1997	1991–1993	10 percent	no	
Mongolia	1997	n.a.	10 percent	no	
Bulgaria	1996	1986–1988	5 percent	yes	79 percent
Ecuador	1996	n.a.	10 percent	no	

^aDate of accession protocol.

^bArmenia's *de minimis* level is 10 percent through 2008 and 5 percent thereafter; Latvia's *de minimis* was set at 8 percent through 2002 and 5 percent thereafter.

Source: Brink (2003) based on WTO accession protocols. Information on Nepal and Cambodia are taken directly from WTO accession packages.

This is not just an academic debate: new members must commit to reducing support when total AMS exceeds the country's *de minimis* level. The OECD reports that if 1994–96 are the base years, the total AMS is over US\$1 billion, compared to less than US\$100 million when the 1997–99 period is used. Thus, using 1997–99 would cap Ukraine's future agricultural support at a much lower level. The latest calculations submitted to the WTO show that the sum of product-specific AMS and non-product specific AMS was 11 percent of the value of production during the base years, so Ukraine will likely need to negotiate a reduction in support levels as well.⁹⁸

98. WTO, "Accession of Ukraine: Domestic Support and Export Subsidies in the Agricultural Sector, Revision," report number WT/ACC/SPEC/UKR1/Rev.9, Geneva: WTO, April 11, 2004. Total AMS reported in Table DS4 is US\$1.36 billion and the value of agricultural production is US\$12.54 billion.

Ukraine's case for binding subsidies at a high level relies in part on the premise that current support levels are high for transitory reasons: it must make one-time expenses to write off old debts, rebuild infrastructure, complete the process of land reform, and invest in technological modernization. Its negotiators also argue that Ukraine should be permitted to maintain AMS above the *de minimis* for reasons that apply equally to all countries and all times: compensation for seasonal demands for credit, volatility in world commodity prices, and weather-related uncertainty. Finally, negotiators argue that Ukraine should be allowed to retain current AMS levels because they have made large concessions in other areas of agricultural policy—it has offered to bind export subsidies at zero, forgo the right to apply special safeguards, and bind tariffs on important agricultural commodities well below their currently applied rates.

The new Law on State Support of Agriculture in Ukraine was adopted in June 2004. The Law immediately raised several concerns from WTO members who believe that most of the instruments of government support to the sector, which are declared in the Law, are classified by the WTO as subsidies from the so-called “yellow basket”, while members would like to see more progress toward less distortive policies (“green basket”) and general sectoral liberalization. In addition, several clauses of the new Law are in direct contradiction with WTO norms. This includes: (i) Article 3.1 that provides for use of minimum and maximum prices in the process of agricultural exports and imports; and (ii) Article 8.2 that allows the GOU to introduce quotas for imports and exports. Another concern relates to future operations of the new Agrarian Fund, which could become a potential source of considerable market distortions through excessive price and procurement interventions. In addition, the Law did not address an important separate sectoral issue that creates considerable problems for Ukraine's WTO negotiations—abolishing the requirement for obligatory use of domestically grown tobacco by the Ukrainian tobacco industry.

It seems unlikely that Ukraine will be able to enter the WTO without having to commit to reducing AMS. Transition economies entering the WTO in recent years with AMS above *de minimis* had to reduce AMS by twenty percent. Although, as Ukrainian negotiators rightly point out, major industrial countries maintain high levels of subsidies, their unwillingness to commit to reductions at the Cancun Ministerial is precisely what halted progress on the Doha Round negotiations. Policy makers should seek ways to replace current subsidies with a program of support that does not distort production and trade.⁹⁹

Overall, our analysis suggests that agricultural issues could become a major separate sticking point in the remaining negotiations (similar to certain legislative changes). First, the Government tariff offer provides for a major reduction in agricultural protection, and it may apparently need time and a strong political strategy to get sufficient Rada backing for such a proposal. Second, in the past the liberalization in agriculture proved to be difficult. The Rada defeated a bill repealing the law on export duties for hides and live cattle in January 2000. The Cabinet of Ministers rejected a similar measure in April 2002. This calls for the need for a strong awareness campaign related to the role of agriculture in the WTO agenda. However, so far the issue remains quite remote from the core domestic discussions on WTO accession.

99. The development of Ukraine's agricultural sector ultimately depends on successful institutional reforms such as land reform, improved property rights, and the development of rural credit markets. Subsidies will not help resolve these more fundamental problems.

Reaching the End of Negotiations

The negotiating team has made considerable progress with foreign partners. What remains to be done is mostly an internal issue—negotiating the WTO agenda with domestic constituencies, including the Rada and individual interest groups. This is not a technical job, and it requires a major effort at the top political level of the country. In other words, the negotiation team now needs considerable help from the political leadership to push the WTO agenda through the Government and Rada, strengthen inter-agency coordination of government efforts, improve communications, and adopt strategic decisions on capacity building.

Ukraine's first priority should be the legal reform agenda. The Government must move more aggressively with both acceleration of adoption of WTO-compliant laws that are still missing, and enforcement of laws that are already in place. Apart from a few specific trade restrictions, such as sugar tariffs and export taxes, WTO members are reportedly rather satisfied with the pace of bilateral negotiations on market access. In contrast, they remain concerned that liberalization at the border is being derailed by problems in the domestic regulatory environment. This implies that the WTO unit in the MEEI might focus less on negotiating additional bilateral protocols and more on championing domestic reforms.¹⁰⁰

In many cases the primary task is to eliminate objectionable policies. Much has been done to identify which laws need to be revised. A recent USAID-funded assessment of Ukraine's WTO accession lists specific laws that need revision to ensure Ukraine's conformity to WTO norms, and it proposes a timeline for adopting these laws. UEPLAC has also produced analyses of WTO-related legislation. The MEEI should move quickly to ensure that the necessary draft legislation is prepared and ultimately passed. The ministry has some grant funding to conduct additional legal assessments, including one to revise the framework Law on Foreign Economic Activity, as well as of more specialized legislation (for example, on intellectual property rights). It should make every effort to facilitate rapid completion of these assessments.

How can Ukraine accelerate the tempo of legal reform? The first concern must be to focus political will on WTO accession. Many WTO-compliant laws have been blocked and many non-compliant laws have been passed, not because those drafting the laws were unclear on WTO obligations, but because of domestic political considerations. Box 5.2 presents several examples of draft legislation facing problems in the Rada, including the CD-ROM licensing law. If Ukraine is serious about joining the WTO, those advocating accession will need to devote more political capital to this task and communicate its political importance to the Rada and general public more effectively.

Several additional factors impede progress toward WTO accession. In particular, it is clearly held back by insufficient cooperation between the lead government agency—the MEEI—and the other participating agencies, between the GOU and the Rada, and between the public and private sectors. The Interagency Commission on Ukraine's WTO accession reportedly has become moribund.¹⁰¹ While virtually all the controversial points enumer-

100. The WTO Secretariat's guidelines for accession imply that the proper order of negotiations is to first complete the multilateral (legal reform) agenda and only then conclude bilateral market access negotiations: "When the working party has made sufficient progress on principles and policies, parallel bilateral talks begin between the prospective new member and individual countries. They are bilateral because different countries have different trading interests." WTO, "Accession to the World Trade Organization: Procedures for Negotiations under Article XII," Document number WT/ACC/1, Geneva: WTO, March 24, 1995.

101. The Commission was originally established by the Government decision in September 1993. It was later restructured by the Presidential Decree No 619/99 of February 19, 1996.

Box 5.2. Some Pending Policy Issues Related to WTO Accession

Legislation to be Amended	Issue	Current status, as of September 1, 2004
Legislation on establishing and functioning of free economic zones and territories of priority development	Elimination of privileges.	Draft law amendments were worked out at the Ministry of Economy but returned for further elaboration by the Government.
Law on "On Stimulating the Development of Agriculture for the 2001–04 period"	Abolishing the requirement for obligatory use of domestically grown tobacco by the Ukrainian tobacco industry.	New Law "On Foundations of State Agricultural Policy" was adopted in June, 2004 but did not address this issue.
Law on "On Audit"	Abolishing the requirement that auditing activities can be conducted only by persons who are citizen of Ukraine.	Draft Amendments were submitted to Parliament.
Legislation on Principles of delivering health care services	Amending definition of the term "medical services" and "medical care."	Draft amendments were submitted to Parliament.
Law "On Television and Radio Broadcasting"	Increasing the share of foreign capital in the charter capital of television and radio broadcast organizations up to 35 percent.	Draft amendments were approved by Parliament in the 1st reading on November 20, 2003.
Law "On Value-added Tax"	Abolishing VAT privileges for domestic producers.	The draft amendments were approved by Parliament (Law #4000-1). However, the adopted version preserved some sectoral tax privileges (automobile industry, book publishing). The President vetoed the new Law on March 1, 2004. At the same time, the 2004 annual Budget Law suspended VAT privileges to the shipbuilding, automotive and aircraft industries envisioned by the VAT Law.

Legislation regarding foreign trade in optic disks	Strengthening licensing and supervision of export and import of disks for laser reading systems to improve enforcement of the IPR legislation.	Draft amendments were submitted to Parliament.
Legislation on food safety	Strengthening responsibility/control for food safety on the basis of European Directives 85/374/EEC and 2001/95/EEC.	A new package of SPS laws was submitted to the Cabinet of Ministers.
Legislation on government support for domestic automobile industry	Elimination of tax preferences for specific domestic automobile manufacturers.	The new Law “On Development of Automobile Industry of Ukraine” (#1624-IV) was adopted in March 2004. For enterprises which were established before January 1, 2004, the Law extended for an additional five years (till the end of 2008) all the tax privileges introduced by the 1997 Law “On Stimulation of Automobile Production” (#535).
Law “On Export Duty on Ferrous Metal Waste and Scraps”	Reduction in the export duty rate and ultimate elimination of the export duty.	The MEEI submitted to the government a new draft law, which suggests a reduction in the export duty rate from 30 Euro/t to 18 Euro/t and restricts the period of validity of the Law. Besides, an alternative draft Law “On making amendments to the Law of Ukraine” “On Export Duty on Ferrous Metal Waste and Scraps” (#4132) was submitted by MPs to Parliament on Sept. 8, 2003.
<i>Source:</i> Government Decree No. 325-p of May 28, 2003 On Approving an Action Plan to Ensure Ukraine’s Accession to the WTO; MEEI; staff analysis.		

ated above require the attention of more than one government agency, there is ample evidence that agencies affected by WTO accession often do not contribute to the negotiations or do not take into account the results of negotiations. For example, the Government's revenue projections reportedly do not reflect the import tariff reductions that negotiators have already promised.¹⁰² To a large extent, effective interagency coordination also hinges on political will. Currently the MEEI is not getting sufficient political support necessary for efficient mobilization of all government entities to work as a team. This lack of political support to WTO negotiators to a large degree explains the major delays with the resolution of core bottlenecks of the accession process.

Box 5.2 presents the list of the most important pending policy issues related to WTO accession. It contains a sub-sample from the longer list of government tasks outlined in the Government Decree No. 325-? of May 28, 2003 On Approving an Action Plan to Ensure Ukraine's Accession to the WTO. This Decree introduced a deadline of the end of 2003 for completion of all identified actions. As can be seen from Box 5.2, a number of core actions remain incomplete (as of September 2004). Most of this unfinished agenda relates to cases where new legislative proposals have been prepared by the Government, but are pending in the Rada to be debated and voted upon. This indicates that, despite the number of decrees and strongly worded declarations issued at various recent occasions, the Rada does not consider WTO-related issues an overwhelming priority in its day-to-day operations. The attention of the top decision makers in the country is naturally attracted by some other pressing issues, including those related to the proposed constitutional changes and presidential elections. This explains why the pace of Ukraine's accession has been slower recently relative to Russia's, for example.

Information sharing between the GOU and other stakeholders, including the Rada, is also weak. Many key players (for example, business leaders, parliamentarians, and government officials) remain uninformed about both the actual state of Ukraine's WTO negotiations, as well as of the implications—positive or negative—of membership. There are many indications that the MEEI is holding much of the information about WTO negotiations too close to its chest. For example, a Rada member responsible for advancing legislation needed to ensure WTO compliance claimed not to have seen the USAID's comprehensive analysis of Ukraine's legal compliance with WTO rules. In part the existing communication problems reflect the lack of empirical economic analysis conducted on WTO accession. The analysis to be conducted over the next year through a Dutch government's grant should fill some of the current gaps in knowledge.

Furthermore, MEEI's current public awareness efforts operate in only one direction—information flows from the state to the private sector. Discussions with MEEI officials uncovered no institutionalized mechanism for the MEEI to incorporate information from the exporters into the trade policy process. The Government needs to establish institutional mechanisms for regular input by members of the public, including small and medium enterprises and civil society organizations. Doing so will help the Government strengthen the constituency for WTO accession, and also help improve commercial diplomacy in general.

102. Some argue that, in practice, large reductions in many agricultural tariffs will not affect revenue collections either because they are currently set at prohibitive levels or because smugglers currently evade customs authorities. Such claims would be more convincing, however, if backed up by empirical evidence.

Finally, progress is thwarted by a general lack of consistency in Ukraine's trade policy-making, which is related in part to unfocused policy priorities in general. Trade policies in Ukraine change too frequently. The Government has introduced a number of new trade barriers during the course of accession negotiations. Often multiple laws address the same topic but in inconsistent ways.¹⁰³ Ukraine has been pursuing several international integration agendas simultaneously—toward Russia, toward the EU, and toward the world economy generally—that at times appear to conflict with each other (see Chapter 6).

Although capacity constraints within the GOU do exist, additional technical assistance would probably not accelerate the WTO negotiating process. Ukraine already receives assistance to help with negotiations, drafting laws, and public education from several donors:

- The Dutch government has provided a grant to the MEEI to support rewriting trade-related laws.
- DFID provides a variety of assistance to the MEEI on WTO issues.
- The EU provides legal advice through the UEPLAC and technical assistance to several trade-related agencies through TACIS projects.
- USAID conducted a comprehensive legal review of WTO compliance and is funding the revision of SPS laws.
- Other U.S. government agencies are assisting with both WTO negotiations and general development of commercial laws to support a market economy.

The total amount of external assistance ought to be sufficient to support the completion of negotiations. The burden is on the Government to use this assistance more efficiently.¹⁰⁴

In summary, despite the number of Government decrees, new laws, and bilateral protocols in recent years, Ukraine's progress toward membership has been slow. Even if political will is mobilized and cooperation among stakeholders is improved, it will likely take at least twelve to eighteen months to work through the full agenda of legal reforms. The 2004 presidential election understandably takes attention away from foreign trade policy concerns. In addition, many of the necessary reforms are politically sensitive, thus, it may be difficult for the authorities to push for their adoption before the presidential elections. In this case, it would be practical for the GOU to admit that completion of the WTO accession in 2004 is out of reach, and adjust the overall timetable for WTO accession, switching to a later completion date.

Reaping the Benefits of WTO Membership

WTO members will not admit Ukraine into the WTO until its laws comply with WTO rules. Compliance alone does not guarantee economic benefits. This section discusses areas where

103. Conflicts across existing SPS laws have been mentioned and these are being addressed in the new draft framework laws. Some observers also find inconsistencies between IPR provisions in the Civil and Commercial Codes.

104. Assistance has not always been used very efficiently in the past, and implementation of donor-backed programs was slow.

the Government must undertake additional institutional reforms to maximize benefits of membership. It begins with a review of what countries expect to gain from membership.

Countries usually expect to gain four benefits when they join the WTO:

- (i) *Improved market access*: WTO members grant each other MFN access to their markets (trade restrictions apply without discrimination);
- (ii) *External policy anchor*: membership provides discipline to implement trade liberalization and sustain domestic policy reforms;
- (iii) *Access to binding dispute settlement*: members can present disputes before an impartial panel; and
- (iv) *A seat at the table*: WTO members set rules that govern much of world trade.

One must recognize that membership alone will not deliver any better tariff treatment for most Ukrainian products. Most of its current exports enter CIS countries duty-free. Ukraine already enjoys nondiscriminatory (MFN) or better access to markets of WTO members. What will change is that Ukraine's MFN access will become guaranteed and permanent once Ukraine becomes a WTO member.¹⁰⁵ Furthermore, the United States and EU currently impose quotas on Ukrainian steel. These would violate WTO rules if imposed on a WTO member, so these countries will need to either eliminate them once Ukraine joins or replace them with a presumably less onerous safeguard measure. In addition, the United States withdrew GSP and imposed trade sanctions in 2001 in retaliation for optical disc counterfeiting in Ukraine. Since compliance with TRIPS is a condition of membership in the WTO, one could expect the United States to restore GSP to Ukraine once Ukraine joins the WTO. One benefit of membership is that Ukraine will be able to address such unfair trade practices through the WTO's binding dispute resolution process. (Naturally this will not apply to Ukraine's trade disputes with either Belarus or Russia, unless they also join the WTO.)

WTO membership has the potential to lock in Ukraine's post-socialist economic reforms by making it more difficult to reverse both the domestic reforms and the trade liberalization undertaken since independence. Particularly in the case of former centrally planned economies, this irreversibility makes a Government's commitment to liberal economic policies more credible and sends an important signal to market participants. It is also a precondition for accelerating integration with the EU, which some see as ultimately the more important objective of Ukraine's foreign policy.

WTO members establish the rules and institutions that govern much of the world's trade. As a member, Ukraine will have the opportunity to influence these rules and the terms of its access to other WTO members' markets.

What will it take to exploit these benefits? First, Ukraine must first increase its capacity to conduct effective commercial diplomacy. Elements of this were discussed above in the context of completing the accession negotiations. They include improved coordination of trade policy across ministries, better communication between the executive and legislative branches,

105. Guaranteed MFN access to the US market could possibly come earlier than accession: in March 2004, both houses of the U.S. Congress introduced legislation to grant Ukraine permanent MFN treatment. Unfortunately, this draft legislation also contains provisions providing for recourse to special safeguards against Ukraine in the event of import surges (H.R. 3958, Section 5, and S. 2201, Section 5). Similar language appears in draft legislation that would give permanent MFN status to Russia.

and institutionalized public engagement. In addition, the GOU should develop mechanisms through which Ukrainian exporters can report foreign trade barriers so that trade negotiators can address them through the appropriate dispute settlement procedures.

Second, Ukraine will need to preserve the trade liberalization accomplished during the accession process. Once Ukraine is a member, any backsliding on its commitments will open the door to sanctions from WTO members. Reforms to integrate Ukraine into the world economy must not end once the WTO accession protocol is agreed and signed.

Finally, Ukraine will need to undertake substantial administrative and institutional improvements to benefit from several WTO regulatory obligations. The most significant of these are WTO codes on intellectual property rights, standards, and customs. The rest of this section focuses on these implementation requirements.

Living with the TRIPS Agreement

The TRIPS Agreement embodies the intellectual property rights rules that evolved during the last several hundred years in market economies. The agreement presupposes the existence of a state apparatus to administer these intellectual property rights and adjudicate disputes. It also presupposes the existence of market institutions that give commercial value to intellectual property rights, such as venture capital markets, copyright collection societies, networks that connect inventors to entrepreneurs, and the like. When these preconditions are satisfied, implementing the TRIPS Agreement encourages investment in knowledge-intensive industries and greater integration into the world economy. When they are not met, as is the case in most transition and developing countries, a government must first devote time and money to implementing the agreement, and the initial economic effect is primarily the transfer of rents to companies in industrial countries.¹⁰⁶ The fact that the U.S.-imposed trade sanctions on Ukraine over weak intellectual property rights enforcement reveals the economic importance of these transfers. In the longer term, implementation of the TRIPS is critical for realization of Ukraine's high-tech aspirations that call for accelerated development of knowledge-intensive sectors in the economy.

For these reasons, the TRIPS Agreement can cause economic harm to Ukraine if compliance is not supplemented with additional institution building. During negotiations to date, the GOU has focused on approving and enforcing laws protecting intellectual property. These measures address the diplomatic problem of protecting intellectual property owned by foreign companies. In and of themselves, the new laws will not stimulate new investment into research and creativity-intensive industries. Net benefits from TRIPS compliance will come only if these new property rights laws are matched by the development of institutions that help rights owners earn money from their rights. This will require first increasing the Government's capacity to process patents and copyrights, enforce laws, adjudicate disputes, educate rights-holders, and so on. Department of Intellectual Property officials reported that they have been working with a number of other Government agencies (Customs, Interior, Justice, etc.) to establish specialized bodies to handle intellectual property issues, for

106. In this sense multilateral property rights harmonization differs fundamentally from multilateral tariff liberalization: for absent market failures, the latter increases total welfare while the former transfers rents from one country to another.

example, laboratories for testing suspected counterfeit products. They pointed to weaknesses in the judicial system as a major obstacle, citing the need to establish local patent courts in all oblasts of Ukraine, as well as a supreme appeals court. The department is working with NGOs to train judges, but more technical assistance is needed in this area. Table 5.4 below shows the administrative start-up costs of intellectual property projects funded by the World Bank in Mexico, Indonesia and Turkey that one might take as examples of what Ukraine can expect to spend to complete introduction of world-class intellectual property protection.¹⁰⁷

Country	Project Components	Cost	Duration
Mexico	Train patent office staff	\$32.1 million	1992–96
	Automate patent office procedures		
Indonesia	Draft new copyright laws and regulations	\$14.7 million	1997–2003
Turkey	Draft new patent laws	\$19.3 million	1997–present
	Reorganize patent office		
	Public education campaign		

Sources: World Bank project documents.

Even if Ukraine could enforce intellectual property rights to the satisfaction of WTO members, its economy at the moment lacks many of the complementary institutions that give commercial value to legal intellectual property rights. These institutions include venture capital markets, autonomous copyright collection societies,¹⁰⁸ educational institutions teaching intellectual property law and management, information networks linking inventors with investors, agents who represent inventors and creators, and so on. These are not institutions that the Government can create with the stroke of a pen. The state can—and should—play an important facilitating role, however, through market-friendly investment policies, educational policies, and other measures. In addition, these institutions must be embedded in an environment of the rule of law and Government regulations conducive to market entry. Building those institutions will take time and cost money.

Institutional Reform for TBT and SPS

It is estimated that eighty percent of world trade is affected by technical regulations and standards.¹⁰⁹ Product standards are generally designed to solve information and coordination

107. These are components of World Bank projects that also contained much larger components to fund industrial research and development.

108. Collection societies channel payments from copyright users to copyright owners in decentralized markets. Private sector performance rights organizations (PROs) in the entertainment industry are the most visible examples of such organizations, but they also exist in other copyright industries. It appears that the only collection society in Ukraine is a government entity (Ukraine Agency for Copyright and Related Rights). The Government should investigate what is needed for private sector PROs to enter this market and affiliate with international bodies.

109. This estimate is frequently cited in press releases by the US National Institutes for Standards and Technology. See for example NIST99-18 (December 2, 1999), available at <http://www.nist.gov/public-affairs/releases/n99-18.htm>, and NIST's *Technology at a Glance* (Fall 2002).

problems that often arise in decentralized markets. In established market economies, some technical specifications are set and enforced directly by Governments, typically as part of broader public health and safety regulations (and military procurement). State-managed mandatory standards represent the minority of standards in most market economies, however. The overwhelming majority of standards are set and enforced solely within the private sector—by scientific organizations, trade associations, and private laboratories. Adherence to such standards is generally voluntary.¹¹⁰ The state's role is limited to indirect activities (such as handling contractual disputes or enforcing truthful advertising laws). This limited state involvement in standards reduces the scope for rent-seeking and allows standards to enhance the efficiency of the private sector.

Although technical regulations and standards are supposed to increase economic welfare, they can easily be manipulated to serve as trade barriers. They are the grounds for many of the trade disputes taken to the WTO. Technical barriers to trade are far worse than traditional protectionist policies (such as import tariffs, quotas, or export taxes) since firms must devote real resources and skilled personnel to satisfying a standard. The Uruguay Round introduced GATT disciplines on such regulations through TBT and SPS Agreements.

TBT Agreement. The goal of the TBT agreement is to reduce the adverse effects that industrial product standards can have on international trade. The TBT agreement requires that WTO members commit to applying technical regulations fairly and transparently: regulations must not discriminate by country of origin, foreign products must be treated no less favorably than domestic ones, and members must notify others of proposed regulatory changes, allowing other WTO members the opportunity to comment. The agreement encourages harmonization of regulations across countries—members are supposed to adopt international standards wherever possible.¹¹¹ It also exhorts governments to adopt technical regulations that impose the least possible restrictions on international trade, though in practice it appears that the WTO standards agreements are legitimizing more strict standards.

WTO rules require liberalizing technical regulations only as they apply to imports. From the perspective of a transition economy, a sensible implementation of the TBT agreement affects more than imports, however: it should also facilitate exports and reduce costs of using standards in the domestic market. Standards are particularly important in production of technologically sophisticated goods. Building a certification system that is recognized by other countries will increase Ukraine's competitiveness in world markets.

What has Ukraine accomplished thus far and what remains to be done? The GOU has publicly committed itself to harmonizing its technical standards regime with that of the EU. These were outlined above in this chapter. Several years ago the Rada passed a number of new laws governing accreditation, standardization and conformity assessment. These need additional revision. In 2002, the Government formally separated the accreditation agency from the state committee overseeing standardization and certification. This body is now seeking to join international accreditation arrangements as one step toward gaining recognition in the EU for tests conducted in Ukrainian laboratories.

110. For example, software programmers are entirely free to write HTML code (for websites) that do not fully conform with the current HTML standard, as set by members of the World Wide Web Consortium, and post them on the world wide web. Doing so limits the usability of the product, of course.

111. The WTO itself does not set these standards. A large number of other bodies are involved in establishing standards.

Some of the measures needed to implement the TBT agreement are in place, but more remains to be done to create a standards regime that will help markets work more efficiently. Work is needed in all areas: standards harmonization, certification, organizational restructuring, and improved legal environment.

Standards Harmonization. The process of standards harmonization works far too slowly.¹¹² The Government is committed to adopting 500 international standards a year to implement its PCA commitments. As of October 2004, Ukraine has adopted 1,950 national standards harmonized with European and international standards. At this pace it will take more than a decade to complete this part of the harmonization process. When confronted with this same problem, a number of the new EU members in central and eastern Europe adopted an accelerated process of harmonization: international standards were accepted as national standards “as-is”—in their original language and without revision. Given that local standards generally should not differ fundamentally from international standards, this procedure could be an effective way for Ukraine to economize on scarce administrative resources. Some in Ukraine advocate this approach because it also prevents translation errors from being incorporated into local statutes (a problem that has occurred in the past in Ukraine). The stock of official standards continues to include 18,750 GOST standards from the Soviet Union. DSSU reports that these are being gradually abolished. Given the dynamic nature of international markets, accelerating the retirement of GOST standards would facilitate Ukraine’s integration into the world economy.

Conformity Assessment. While the GOU is in the process of harmonizing the *content* of its technical standards with those of international standards, it must also reform the *process* by which manufacturers comply with those standards to gain the full economic benefits of standards harmonization. Ukraine’s present technical standards regime relies almost entirely on mandatory certification—virtually all products are obliged to meet technical specifications set by the Government and, furthermore, to employ third-party testing to show that the product does in fact comply with the standards.¹¹³ In contrast, the vast majority of standards in the United States and EU are voluntary.¹¹⁴ The GOU must take care that, in the process of standards harmonization, it does not transform the body of voluntary international standards into mandatory technical regulations.

The provision of conformity assessment services is plagued by monopolization. The absence of market competition is pervasive in many post-socialist economies, and the market for conformity assessment services (testing and certification) in Ukraine is no exception. The Government is attempting to address one pathology of monopolies—higher prices—by establishing a committee that will regulate the level of fees that providers charge companies for testing and certification. This is only a short-run solution, however. In the long run, greater competition is needed through the entry of new providers. To some extent,

112. Box 6.4 in the next Chapter discusses the recent delays in implementation of the EU’s “New Approach” technical regulatory regime.

113. The Government has been reducing the scope of mandatory certification as part of WTO accession negotiations.

114. The biggest exception to this generalization involves military procurement specifications, which represent the bulk of mandatory standards in the US (National Research Council, 1995).

entry is hampered by restrictions on foreign conformity assessment service providers in the Law on Conformity Assessment, as was discussed earlier.

Accreditation. The flip side of recognizing foreign conformity assessment providers is gaining recognition by other countries of Ukrainian testing results. The National Accreditation Agency of Ukraine (NAAU) has been working to join International Laboratory Accreditation Center (ILAC), a multilateral accreditation institution. Membership will help Ukrainian laboratories that are NAAU-accredited to gain recognition in markets of other ILAC members (and vice versa). The German accreditation agency has been providing technical assistance to NAAU to prepare for ILAC membership. TACIS is funding efforts to improve facilities at some key food processing and toy testing laboratories, a prerequisite to their gaining accreditation from EU accreditation agencies.

Organizational Reform. In market economies the different responsibilities for managing the standards regime are spread across many different organizations, some private and some public. Ukraine seems to be moving in the opposite direction: the DSSU is accumulating more new functions than it is shedding. Although the accreditation function was transferred from DSSU to NAAU in 2002, the DSSU has expanded its mission into new directions, such as intellectual property rights enforcement. Consumer rights are now an important theme of its work. And it still maintains responsibility for overseeing conformity assessment services. A more sensible approach would be to divide rather than join: the Government should separate regulatory responsibilities from advice, extension, and advocacy. Where possible, it should move responsibilities to civil society and private enterprise. For example, the standards development process need not be conducted by a government agency at all. Certainly it should be independent of regulatory agencies or other bodies of executive power.

The organizational responsibility for notifying new regulations to WTO members merits special attention. WTO filings report that notifications under the TBT Agreement will be handled by DSSU's National Information Center. The organization has plans to post translations of draft technical regulations on its website in line with WTO requirements, but as recently as October 2004, attempts to find more than translations of the basic laws on the website were unsuccessful. More recently, the MEEI has indicated that a unified TBT-SPS enquiry point will be established in the MEEI, which in turn will liaise with the DSSU and other technical agencies. Where it is housed is perhaps less important than how its mission is defined. The enquiry point should be designed to provide two-way notification. It should be designed from the ground up as an institution that channels other countries' notifications to the business and technical community in Ukraine, and not solely to respond to other countries' requests for information. The trade team at the MEEI should then incorporate feedback from the private sector into its commercial diplomacy.¹¹⁵

Technical Assistance. Building a market-oriented industrial standards regime will require more than the harmonization exercises taking place in the context of WTO accession and PCA implementation. Both public and private sector investment will be needed. Donors

115. Two mechanisms that might serve as useful models are the US government's "Report a Trade Barrier" website and its "Export Alert" e-mail distribution system for TBT and SPS notifications that other countries submit to the WTO. These are at <http://www.tcc.mac.doc.gov/> and <http://ts.nist.gov/ts/htdocs/210/ncsci/export-alert.htm>.

can contribute to institutional reform through technical assistance and lending programs. Table 5.5 below lists some measures undertaken in World Bank-funded standards development projects during the 1990s in Turkey, Russia, and Indonesia. These give some indication of the scale of funding that could be required.

Country	Project	Cost (US\$)	Duration
Turkey I	Construct facilities, procure equipment and train staff at metrology and quality campus	\$74.2 million	1991–97
	Reorganize management of standards institute		
	Establish independent accreditation organization		
Indonesia	ISO9000 (quality management) extension services	\$5 million	1995–2001
Russia	Establish WTO enquiry point	\$34 million	1996–99
	Harmonize standards		
	Gain international accreditation		
Turkey II	Procure metrology equipment	\$42.5 million	1999–present
	Reorganize management of metrology institute		

Source: World Bank project documents.

SPS Agreement. Most, if not all, countries have laws governing food, plant and animal hygiene, and just as many countries accuse others of applying such laws to protect domestic producers rather than public health. The Uruguay Round introduced new rules to impose disciplines on national laws in those areas. As with other WTO agreements, the SPS agreement requires WTO members to apply their laws transparently, without discrimination between different exporting countries, and treating imported products no less favorably than domestic products. According to accounts of Ukraine’s accession negotiations, WTO members frequently complain about onerous existing government regulations (e.g., rules on meat inspections). The response is typically that these meet conditions of national treatment, transparency, and nondiscrimination and are therefore WTO-compliant. As with technical regulations, this is “fairness” that hurts foreign and domestic firms alike, and is not the sort of national treatment that those drafting the SPS agreement had in mind. In addition to the standard clauses on transparency and fairness, the SPS agreement also requires that members should:

- Base their regulations on principles of “sound science” and existing international standards.¹¹⁶
- Introduce hazard control and risk-assessment procedures.
- Recognize the concept of disease and pest-free areas.

116. The WTO does not set these standards, but instead recognizes rules established by the Codex Alimentarius Commission, the International Office of Epizootics and the International Plant Protection Convention.

- Write SPS rules that impede trade flows to the minimum extent possible (without sacrificing national health objectives).
- Establish enquiry points and notify other WTO members about proposed new regulations.

These points imply the need for governments to devote legal, administrative, and scientific resources to rewriting laws, establishing new regulatory oversight bodies, outfitting laboratories and pest control facilities, and expanding agricultural extension activities. One should not infer from these comments that the SPS agreement is onerous, but rather that implementing it is not a cost-free exercise.

On its surface, the SPS agreement appears to favor developing countries (especially food exporters) at the expense of richer countries, where consumers have most aggressively introduced restrictive food safety laws—the agreement seemingly blocks importing countries from imposing arbitrary and capricious food safety rules at the border. In practice, however, the SPS agreement seems to be contributing to a “race to the top” in food safety regulations.¹¹⁷ The agreement explicitly recognizes certain international agreements establishing food safety rules, which generally codify the generally stricter standards developed by OECD countries. Those standards are presumed to be already SPS-compliant, while other countries face the burden of proving that their standards are also compliant. Meeting importing countries’ standards requires exporting countries to upgrade their systems for disease control and prevention. The administrative cost of improving a SPS regime obviously depends on the nature of a country’s agricultural industries and exposure to pests. World Bank projects in developing countries to eradicate diseases after they’ve broken out have consumed hundreds of millions of dollars. Argentina spent US\$150 million per year during the early 1990s to eliminate foot and mouth disease and thereby enable the ranchers to export fresh beef to the United States and Western Europe.¹¹⁸ Algeria spent US\$112 million in 1988–90 to fight a plague of locusts (World Bank 1993). Preventing future outbreaks is somewhat less expensive, and involves improving quarantine facilities, vaccination programs, capacity building, improving veterinary and agricultural extension services, and public education campaigns.

In Ukraine, USAID is currently funding a project to revise laws relevant to the SPS agreement, harmonize all Ukrainian SPS measures with international standards, and ensure compliance with WTO norms. TACIS has a SPS project that will help create an information center and introduce hazard analysis and critical control point systems. Compliance with international trade rules is the first step toward integration into world food products markets. It must be supplemented with improvements in the general agriculture and food-processing supply chain.

Modernization of Customs and Border Processing. WTO rules place two main requirements on member countries’ customs practices. First, members must value imports according to the price paid or payable for the good in the market, rather than establishing non-market reference prices. Second, apart from ordinary customs duties, any fees, charges, etc. that a member levies on imports or exports—including customs clearance fees—must reflect the

117. See for example Otsuki et al. (2001a and 2001b).

118. “Beef Exports Are Back,” *IDBAmerica* (August 1997). This “elimination” was short-lived—trade was halted a few years later when foot-and-mouth disease resurfaced in Argentina.

Government's cost of providing the relevant service. Ukraine's new customs code (described earlier) establishes the legal basis for compliance with these requirements.

Slow clearance and other institutional problems appear to impose greater barriers to trade than non-compliance with WTO rules. Delayed clearance increases the costs of conducting international trade—time is money—and prevents Ukrainian producers from integrating into international supply chains where just-in-time inventory management, rapid replenishment, and other modern supply management techniques are prevalent. In many countries, slow clearance enables inspectors to extort bribes from traders. In Ukraine, according to State Customs Service (SCS) officials, if all paperwork for all agencies (not just customs) conducting border clearance is in order, clearance can take one day. If not, it may take several weeks. Contrast this with clearance statistics of 50–100 minutes for most border points in Southeastern Europe, as reported by the South East Europe Trade and Transport Facilitation Project. Clearance times have dropped to around 30 minutes at many of these posts.¹¹⁹

SCS officials acknowledged problems with slow clearance, identified several contributing factors, and described the following measures the SCS is taking to speed up border processing and customs clearance:

- The practice of physically inspecting all shipments drives up clearance times. The SCS has established a risk analysis unit to lay the groundwork for more selective physical inspections.
- Currently at least six government agencies may need to conduct clearances at the border. In addition to inspections by the border guard and the SCS, the State Tax Administration, DSSU, Ministry of Health, Ministry of Agriculture, and the veterinary inspector may need to clear shipments. The SCS proposed centralizing all control procedures under the SCS, but was rebuffed by the other agencies. The SCS is preparing a new proposal to at least allow it to conduct a unified clearance check for low-risk goods.
- The SCS lacks the information technology infrastructure to automate clearances. In addition, existing laws restrict its authority to conduct post-clearance audits of traders, thereby, acting as a de facto barrier to fuller automation of clearance procedures. SCS officials said they are unable to address these legislative reforms.

More general progress with civil service reforms may also be necessary, including improved personnel management, hiring practices, training, and pay scales. Civil service reform is often an important ingredient in successful customs modernization programs. Pay levels reported by SCS officials seem lower than in some other CIS countries, though perhaps higher than in some other Ukrainian government agencies.

Both the United States and the EU have been providing training for customs valuation as part of WTO-related assistance. In addition, both recently started large assistance projects related to customs and border clearance, which could be summarized as following:¹²⁰

119. See <http://www.seerecon.org/ttfse>. This comparison of clearance times should be taken as only a rough estimate as the calculation of total clearance times is quite sensitive to the methodology used.

120. Investments in infrastructure improvements alone do not, in and of themselves, lead to quicker clearance. Customs experts note that simply changing the traffic flow pattern, without necessarily investing any money in physical infrastructure, often brings the largest reductions in clearance times.

- Last July TACIS signed a two-year, €2 million project (called “Customs-7”) to provide technical assistance for the modernization of Ukraine’s customs service.¹²¹ In November 2003, the European Commission promised to spend €16.5 million to improve the physical infrastructure of border posts in Yahotyn, Rava-Ruska and Uzhhorod, and bring those posts into conformity with EU standards.¹²²
- The United States recently began working on the regional trade and transport facilitation project for GUUAM countries, modeled after the project in Southeastern Europe. The SCS reportedly requested US\$40 million from the U.S. for customs modernization.
- In addition, customs authorities in CIS countries recently signed a customs cooperation agreement and pledged to both simplify and harmonize clearance procedures in member countries.

Conclusions

This review of Ukraine’s WTO accession reveals that much has already been done in the name of WTO accession. The Government has passed hundreds of new laws and written thousands of pages in response to questions from WTO members about its trade policies. These do not yet add up to a protocol of accession, but the end appears to be in sight. To bring negotiations to a successful conclusion, the Government will need, first of all, to concentrate on the domestic reform agenda: negotiating the WTO agenda with domestic constituencies, including Rada and individual interest groups. Legal analyses have been conducted. A roadmap for legal reforms is with the MEEI. What remains is to mobilize the political will behind successful passage of these laws. If Ukraine is serious about joining the WTO, the top country leadership advocating accession will need to devote political capital to this task and communicate its political importance to the Rada and general public more effectively. This legal agenda should take precedence over bilateral market access negotiations—generous tariff concessions will not compensate for a weak legal environment. The trade agenda will also need higher priority in the legislative program of the Rada.

Priority measures to accelerate WTO membership include the following:

- Rewriting the Law on Foreign Economic Activity.
- Eliminating all non-tariff interventions in the sugar market.
- Reducing/eliminating export taxes.
- Shortening the list of goods requiring mandatory certification or inspection.
- Passing amendments to the CD-ROM import licensing law.
- Passing amendments to the law on the automobile industry.

The Government has to improve its intra-agency cooperation with respect to resolving the pending issues of the WTO agenda. The MEEI needs to get additional political support from top government officials for efficient mobilization of all government entities to

121. *European Report* (July 19, 2003).

122. *BBC Monitoring: Ukraine and Baltics* (November 17, 2003).

work as a team. Stronger engagement of the private sector in both domestic policy dialogue and commercial diplomacy abroad is also desirable. There is a need to advance and expand public discussions on the role of agricultural issues in the WTO accession process.

Even if the political will is mobilized and cooperation among stakeholders is improved, experts suggest it will likely take at least another twelve months to work through the full agenda of legal reforms. The GOU should be realistic and adjust the overall timetable for WTO accession accordingly. But delaying accession at this stage would cause Ukraine to forego an important opportunity to integrate into the world economy. All around the world, countries are making concerted efforts to open their markets and reap the benefits of a more open international economy.

Full legal compliance with WTO rules will satisfy WTO members, but will not automatically yield benefits for the Ukrainian economy. To take advantage of dispute settlement mechanisms available to WTO members, the MEEI will first need to enhance its capacity to conduct commercial diplomacy. More effective public engagement and better inter-agency coordination will help the MEEI address foreign countries' unfair trade barriers. More importantly, the Government will need to undertake significant institutional reforms to implement WTO regulatory rules in ways that facilitate integration into the world economy. Customs modernization and standards reform will likely yield the biggest payoffs.

WTO accession and addressing the post-WTO accession agenda are critically dependent upon availability of relevant international expertise. Currently the GOU has access to a broad range of donor-funded sources of technical expertise, but it is not always using this assistance efficiently. More technical assistance may be needed over the next several years, but the Government will have to upgrade its capability to channel donors' programs toward the critical components of its own agenda and avoid delays in the implementation of assistance programs.

Medium-Term Priorities for Trade Integration Strategy¹²³

The objective of this Chapter is to discuss some fundamental principles of the Ukrainian trade policy and develop recommendations that would help the government prioritize its medium-term integration strategy. At the moment, there remain considerable inconsistencies in Ukraine's trade strategy. A leading example is an adoption of the two strongly worded declarations in support of both "European Choice of Ukraine" and the "Single Economic Space." These inconsistencies are confusing for Ukrainian business people and trade partners, and they complicate the process of attaining of Ukraine's strategic goals. Some other examples of such inconsistencies are as follows:

- Signing specific declarations within the framework of the Single Economic Space (SES) could be interpreted as an intention to establish a customs union with its CIS partners. Harmonization of external tariffs with other members of such a customs union before completing the WTO accession process poses the risk of re-negotiating the conditions of accession.
- There could be a better balance between pursuing overarching political objectives of the integration processes with the EU and immediate practical steps toward trade integration. Political integration with the EU (EU membership) can only be considered in the long-term perspective. This does not ignore the fact that at the moment Ukraine has a unique opportunity to accelerate its economic integration with Europe by pushing the idea of a free trade agreement with the EU, without linking this agreement to the issue of EU membership. However, the current pace of the trade integration process with the EU appears to have slowed down considerably.

123. This Chapter is largely based on the background paper prepared by Dr. Igor Burakovsky (IER).

- Government's WTO inspirations and its non-market are inconsistent with often WTO-inconsistent approaches to a resolution of specific sectoral problems in the real sector by introducing administrative restrictions on market mechanisms, providing implicit subsidies to local producers, and being weak in limiting the influence of sectoral interests on government policies.
- Declarations on strengthening economic integration with both the EU and Russia are accompanied by a considerable number of ongoing trade disputes. In several cases, in particular with respect to Ukraine-Russia trade, short-term economic gains from the contingency measures introduced are quite insignificant and are not worth the damage of souring trade relations. Such micro trade wars bring about considerable political damage and inflate the ambitions of sectoral lobbyists. They also bring longer-term economic losses by reducing domestic competition.
- Inconsistencies are also noticeable at a more technical level. For instance, Ukraine committed itself to adopting EU technical directives and standards, but at the same time it drags out this process by maintaining a regime largely based on mandatory GOST standards.

Given the prevailing sentiments in the EU after the 2004 enlargement, it may be difficult for Ukraine to secure a firm commitment regarding its full EU membership in the near future. Under the circumstances, Ukraine needs to formulate a trade policy strategy which anticipates a fairly protracted interim period leading up to EU accession. In particular, a clear and realistic government strategy is important to help private sector participants adjust their expectations and shift from waiting to investing mode of operations. It is also important for Ukraine's international partners: WTO members reportedly complain that the lack of a coherent strategy renders Ukraine's policy commitments less than fully credible. This chapter intends to suggest several principles for such a strategy.

Trade Integration with the EU: Follow Pragmatic Approach Toward Attaining Realistic Goals

Ukraine had long ago declared a strategic goal for European integration, meaning full membership in the EU.¹²⁴ Since the early 1990s, prospects of EU membership (full political integration) played an important role in speeding up economic reforms in the countries of Central and Eastern Europe (CEEC). This Chapter argues that in Ukraine's specific political and economic circumstances, the path toward European integration will be quite different, but nevertheless it could be equally beneficial for the country. It seems practical for Ukraine to attempt to accelerate its economic integration with the EU while leaving the issue of EU membership to be resolved somewhat later. A free trade agreement with the EU, which would *inter alia* provide for some improvement in market access for Ukrainian agricultural products, should be a medium-term benchmark for the strategy. EU membership should be viewed as a long-term anchor for institutional and structural reforms in Ukraine, while the immediate and more practical agenda is WTO accession.

124. Both Timmerman (2003) and Najder (2003) argue that the Ukrainian desire to join the EU has been primarily of a declarative nature, and it was not supported by a coherent set of policies.

The basis of the longer-term trade strategy for Ukraine could be based on its strategic advantage—location between two much larger economic entities, EU and Russia. Moreover, it is likely that for the foreseeable future, Ukraine would have lower labor costs than its neighbors. Ukraine's policy priority should be an efficient utilization of this advantage by positioning itself as a potentially:

- Low cost platform to produce goods and services for both CIS and CEE markets.
- Natural bridge between EU and Russia/Central Asia, i.e., performing as a reliable transit country.
- Location with low regulatory costs, good proximity to major markets, and preferential market access to its larger neighbors.

Economic policies to support this longer-term strategy would require an adjustment in the following directions:

- Ensuring a stronger stability/predictability of government policy that would make Ukraine's partners comfortable about their longer-term choices related to Ukraine.
- Making a major push for free trade arrangements in both directions (East and West), but without requesting partners to make sensitive political commitments (such as EU membership).
- Improving the domestic business environment and expanding an inflow of European FDI.
- Upgrading domestic institutions for export and investment promotion, including the launch of a broad communication campaign to improve Ukraine's investment image as an attractive location for business and investment.

With some simplification, one may claim that there are two dimensions to Ukraine's economic integration into the EU: (i) regulatory integration, which aims at accelerating changes in the legal and regulatory environments to make them consistent with those in the EU; and (ii) day-to-day business integration, which aims at making EU companies comfortable with doing business in Ukraine in terms of a level playing field, enforcement regime, quality of business services, etc. From this perspective, real progress along these two dimensions over the last few years has been rather uneven: the government paid more attention to regulatory upgrades, and was less concerned about the remaining weaknesses in the business environment.¹²⁵ Such an imbalance has to be addressed now: drastic improvements in the business environment would make European businesses a major Ukrainian lobbyist for further integration with the EU.

Moreover, in the medium term a delay with obtaining EU membership could be beneficial for Ukraine's economic prospects, because of a number of reasons, such as:

- It would provide a good opportunity for Ukraine to learn from the experience of its neighbors that joined EU in 2004, and if needed to make adjustments to the admission strategy.

125. In March 2004, the Ukrainian Parliament adopted the Law on National Program of Ukraine's Legislation Conversion to that of the EU. According to the law, a major part of the new draft legislation in Ukraine has to be mandatorily subjected to expertise to check its consistency with *Acquis Communautaire*.

- Likewise, it would allow for delaying the introduction of some portions of EU regulations, especially social and labor regulations, which potentially could be costly for the private sector. Because Ukraine has a much lower income level than both the EU-15 and new EU members, it has to be more cautious about the risk of over-burdening the economy with regulations that are inconsistent (and unaffordable) with its current income level.
- As mentioned above, it would provide a window of opportunity for Ukraine to position itself as a low cost economy in close proximity to major markets, but without the EU regulatory burden.

Ukraine signed the Partnership and Cooperation Agreement (PCA) with the EU in the summer of 1994, but the Agreement went into force only in March 1998. As discussed in Chapter 3, Ukraine has received limited trade benefits from the Agreement so far. And the track record of the PCA implementation has been mixed. On the one hand, as mentioned earlier and in line with its PCA commitments, the Government implemented a number of steps to liberalize its trade, especially after 1999. On the other hand, EU experts have identified a number of remaining violations of the PCA, such as quantitative limitations on exports and imports, discriminating advantages to specific local producers, excessive certification charges for imports, etc. (Schneider 2001).

The basic approach to its relations with Ukraine was laid down in the EU's Common Strategy of 1999 (Box 6.1). The 2004 enlargement of the EU triggered a new interest toward clarifying both the prospects and framework of cooperation between the EU and Ukraine. The EU has announced the European Neighborhood policy initiative, and it also has been developing new instruments of cooperation such as an Action Plan. It is possible that the EU would offer Ukraine an *enhanced agreement* that would go beyond the current PCA. Ukraine must fully utilize the potential benefits of these initiatives. Moreover, since these initiatives are not well specified yet, the GOU has a chance to develop its position in advance, which should include both "wish list" requests, as well as specific concessions the government is willing to make.

Box 6.1. EU Common Strategy toward Ukraine

The EU Common Strategy was adopted in December 1999 at the Helsinki European Council. It covers a period of four years. The Strategy aims at developing a strategic partnership between the EU and Ukraine on the basis of the PCA, while acknowledging Ukraine's European aspirations and welcoming the country's European choice. At the same time this document says nothing about Ukraine's potential EU membership. The strategy sets four principal goals:

- To support the democratic and economic transition process in Ukraine.
- To meet common challenges of the European continent (stability and security in Europe, environment protection, energy and nuclear safety).
- To strengthen co-operation between the EU and Ukraine in the context of enlargement; assist Ukraine's integration into the European and world economy.
- To enhance co-operation in the field of Justice and Home Affairs.

Source: EUROPEAN COUNCIL COMMON STRATEGY of 11 December 1999 on Ukraine
http://www.europa.eu.int/comm/external_relations/ukraine/intro/#2

For Ukraine, the President's Strategy for European Integration of 1998 has repeatedly been confirmed at various levels (See also AHT, 2003). Ukraine has officially declared its intention to become an EU member, while the EU so far has only acknowledged Ukraine's European aspirations. The EU does not consider Ukraine as a prospective EU member at least in the medium run, but it is ready (with some reservations) to discuss the possibility of establishing a free trade zone (Box 6.2).

Box 6.2. Acknowledgement and Aspirations: EU and Ukraine Positions on Strategic Perspectives of Mutual Cooperation

EU's Position:

The EU acknowledges Ukraine's European aspirations and welcomes Ukraine's pro-European choice. The EU remains firmly committed to working with Ukraine at national, regional and local levels, in order to support a successful political and economic transformation in Ukraine, which will facilitate Ukraine's further rapprochement with the EU. The EU and its Member States offer to share with Ukraine their various experiences in building modern political, economic, social and administrative structures, fully recognising that the main responsibility for Ukraine's future lies with Ukraine itself.

The EU is also prepared to examine the circumstances which might, in addition to the World Trade Organisation (WTO) accession, allow for the future establishment of an EU-Ukraine Free Trade Area, as foreseen in the PCA.

Ukraine's Position:

Ukraine's gaining membership with the EU is a prospective foreign policy goal.

Strategy and timetable for achieving this goal:

2003–04: Sign an associated membership agreement with the EU and conduct talks on a free trade zone.

2004–07: Ukraine is to follow all necessary procedures needed to implement the associated membership agreement and become an associate member of the EU.

2005–07: Ukraine is to set up a customs union with the EU.

2007–11: Ukraine is to meet all the requirements for EU membership.

Source: EUROPEAN COUNCIL COMMON STRATEGY of December 11, 1999 on Ukraine (1999/877/CFSP)// Official Journal of the European Communities 23. 12. 1999 L 331. Resolution of the Verkhovna Rada, "On principal directions in Ukraine's foreign policy," 1993. "The European Choice," Annual Presidential Address to the Verkhovna Rada, May 31, 2002.

An important pre-condition for negotiating an FTA with the EU is Ukraine's WTO accession. As argued elsewhere in this report, completion of the WTO accession process (based primarily on commitments that are EU-consistent) is currently the best option available for Ukraine's policy to accelerate its European integration. Establishing a trade-compatible business climate for foreign investors in Ukraine has more potential for improving access to European markets than opportunities associated with obtaining additional trade preferences from the EU. Two other major issues in Ukraine-EU trade relations (lack of the market economy status for Ukraine and EU safeguard measures against Ukraine) have also to be resolved as part of the WTO accession process.

Market economy status. Ukraine does not have market economy status either in the EU or the United States. This status is important for antidumping investigations in both markets,

since non-market economies are discriminated against in the course of such investigations. The United States also places limits on MFN treatment extended to imports from countries labeled as non-market economies.¹²⁶ At present, the EU classifies Ukraine as a “country in transition,” which means that individual companies subject to anti-dumping investigations can request to be treated as if Ukraine were a market economy.¹²⁷ In October 2000, the EU Council of Ministers passed a decision granting *market economy enterprise* status for particular Ukrainian firms that can substantiate that they operate under market economy conditions.¹²⁸

The European Commission cites two significant unresolved issues hindering the granting of market economy status to Ukraine: (i) bankruptcy legislation, and (ii) state intervention in the price-setting mechanism. The EU believes that current Ukrainian legislation blocks initiating bankruptcy procedures for certain state-owned enterprises under circumstances that are not clearly defined by law and therefore could be interpreted too liberally. There is also a concern that so-called “city-forming enterprises” are protected from the bankruptcy law, and as such they may potentially be able to export while technically being bankrupt.

The EU Commission also believes that the state continues its market-distorting interventions in pricing of specific commodities, such as fertilizers and metals. Both complaints are valid, and the GOU has to prepare a reasonable compromise in the context of its WTO negotiations to appease EU concerns.

EU representatives and others frequently argue that gaining market economy status would not appreciably change Ukraine’s access to the EU market, since this classification affects only anti-dumping investigations and since the EU imposes anti-dumping duties on fewer than ten products from Ukraine. These products collectively make up a small fraction of Ukraine’s total exports to the EU. While true, the continued classification of Ukraine as something other than a normal market economy, despite the extensive economic reforms undertaken in the past decade, nevertheless has more than symbolic importance. It seriously hurts Ukraine’s investment image and causes a chilling effect on foreign companies’ willingness to invest in Ukraine and do business with their Ukrainian counterparts.

Trade protection measures against Ukraine. The safeguard measures against Ukraine are described in some detail in Chapter 3. In the medium run, the EU is likely to continue the application of quotas on steel imports from Ukraine. However, after the accession of CEEC into the EU in May 2004, the quotas have been revised upwards taking into account the achieved level of Ukrainian exports to CEE. Anyway, the analysis presented in Chapter 3 reveals that the existing trade protection measures do not appear to constitute a major constraint for Ukrainian exports to the EU.

126. The U.S. President must issue an annual waiver to renew MFN treatment. Bills have been introduced to give Ukraine a permanent waiver, but none have been passed.

127. Other “countries in transition” are Albania, Armenia, China, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Mongolia, and Vietnam. The EU applies the more restrictive classification of “non market economy” to Azerbaijan, Belarus, North Korea, Tajikistan, and Turkmenistan. Russia achieved market economy status in 2002.

128. Later in 2001, the EU recognized the market economy status of two Ukrainian enterprises, JSC Azot (Cherkassy) and JSC Concern Stirol (Gorlovka). COMMISSION REGULATION (EC) No 1497/2001 of 20 July 2001. Overall, seven Ukrainian firms have requested this status, according to communications with EU officials.

Trade Integration with the CIS: Expand Cooperation Based on WTO Principles

As a member of the CIS, Ukraine has free trade agreements with all other eleven former Soviet republics. Although the CIS was established in 1991, and the Plurilateral Agreement on the Establishment of the Free Trade Area was signed by all CIS countries (except Turkmenistan) in 1994, this framework agreement has never been ratified by all signatories. As a result, the FTA in the CIS has been established through a web of bilateral trade agreements among its members.

Overall, available evidence suggests that the CIS free trade area generates a lot of intra-bloc trade (see Freinkman, Polyakov, and Revenco 2004 for a quantitative analysis of intra-CIS trade). Due to its common economic and political past, CIS members trade more among each other than it would be expected from economies at this income level and other fundamentals. Moreover, this “excessive” intra-bloc trade is not trade diverting because it does not reduce the trade flows between the CIS members and the rest of the world.

Table 6.1 presents Ukraine's bilateral free trade agreements in effect today. All of them are with the other CIS members except for Macedonia, whose FTA is plagued by extensive exemptions from the free trade regime and does not have much significance for Ukraine's trade. The wording of the signed bilateral FTAs is rather similar. They stipulate import duty-free trade in all goods (while allowing for unspecified potential exemptions) and free transit of goods through the signatories' territories.

The exemptions from the free trade regime are introduced in the protocols to the bilateral free trade agreements. These protocols are considered inseparable parts of the agreements and are defined by bilateral trade committees, which meet on an annual basis. Exempted products are subject to MFN tariff rates. These exemptions can be non-symmetric, i.e., in the same trade dyad each partner can exclude different products. Introduced exemptions are normally accompanied by a schedule to eliminate them. Although there is an agreement to eliminate about 90 percent of existing exemptions between 2004 and 2009, the last portion of exemptions are not planned to disappear before 2012.

The free trade agreements stipulate the possibility of contingent protection—temporary protection, antidumping measures, and safeguard measures. Temporary quantitative restrictions for imports or exports can be introduced unilaterally (normally for up to two years) in cases of an acute shortage of the goods in question on the internal markets, large deficits in the balance of payments, realized or potential injury for domestic producers, and/or as re-export control measures. The laws on antidumping and safeguards in Russia, Ukraine, and most other CIS members (those who have enacted such laws) are in line with WTO rules. The problem, however, lies in their application, which is basically unilateral, with little recourse provided to the targeted country.

Contingent protection measures are most pronounced in Russo-Ukrainian trade, in which reciprocal protection measures have been plaguing bilateral trade relations for years (see Box 6.3).

While the list of discriminated products looks impressive, it covers only a fraction of both actual and potential bilateral trade. According to the Russian Ministry of Economic Development and Trade, the aggregate estimate of the damage these restrictions impose on respective countries is relatively small: Russia loses around US\$100 million a year because of Ukrainian restrictions, and Ukraine loses around US\$150 million a year. Russia's damage is

Table 6.1. Bilateral Free Trade Arrangements Signed and Ratified by Ukraine

Country	Date	Exemptions from free trade
Armenia	October 7, 1994	None
Azerbaijan	July 28, 1995	None
Belarus	December 17, 1992	<p>White sugar; horned cattle undergrowth, cows, bulls, others cattle, live sheep, horned cattle hides, sheep or lamb hides, pig hides.</p> <p>In 2002, Ukraine unilaterally excluded from the free trade regime: Sugar made of sugar-cane or sugar-beet, chemically pure sucrose, in solid state; other kinds of sugar including chemically pure lactose, maltose, glucose and fructose, in solid state; sugar syrups without aromatic substances or dyes; artificial honey, mixed or non-mixed with natural honey; caramel sugar and molasses.</p>
Georgia	January 9, 1995	In 2004, Ukraine unilaterally excluded from the free trade regime: Sugar and sugar syrups.
Kazakhstan	September 17, 1994	<p>Live horned cattle (undergrowth), cows, bulls, others cattle, live sheep, horned cattle hides, sheep or lamb hides, pig hides;</p> <p>Alcoholic and non-alcoholic beverages;</p> <p>Tobacco and tobacco substitutes (industrial).</p>
Kyrgyzstan	May 26, 1995	None
Moldova	August 29, 1995	<p>In 2001, Ukraine unilaterally excluded from the free trade regime: Sugar made of sugar-cane or sugar-beet, chemically pure sucrose, in solid state; other kinds of sugar including chemically pure lactose, maltose, glucose and fructose, in solid state; sugar syrups without aromatic substances or dyes; artificial honey, mixed or non-mixed with natural honey; caramel sugar and molasses.</p> <p>In 2004, Ukraine unilaterally excluded from the free trade regime: Sugar and sugar syrups, seeds of sugar-beet.</p>
Russian Federation	June 24, 1993	<p>Exported from Russia to Ukraine: white sugar; confectionery (including white chocolate) without cocoa: white chocolate, boiled candies with or without filling, caramel and similar goods in different forms; chocolate and other cocoa inclusive food substances with or without filling, sweet cookie and wafers; cigars, cigars with cut tips, cigarillos, and cigarettes made of tobacco or tobacco substitutes.</p> <p>Exported from Ukraine to Russia: white sugar, non-denatured ethyl alcohol with alcohol no less than 80 percent proof, denatured ethyl alcohol and alcoholic drinks of any proof, non-denatured ethyl alcohol less than 80 percent proof, cigars, cigars with cut tips, cigarillos, and cigarettes made of tobacco or tobacco substitutes.</p> <p>In 2004, Ukraine unilaterally excluded from the free trade regime: Sugar syrups.</p>

(continued)

Table 6.1. Bilateral Free Trade Arrangements Signed and Ratified by Ukraine (Continued)

Country	Date	Exemptions from free trade
Tajikistan	July 6, 2001	None
Turkmenistan	November 5, 1994	None
Uzbekistan	December 29, 1994	<p>In 1994, the parties signed a Protocol on exemptions from the free trade regime:</p> <p>Live horned cattle (undergrowth), cows, bulls, others cattle, live sheep, horned cattle hides, sheep or lamb hides, pig hides.</p> <p>Precious metal ores and concentrates, precious metals in colloidal state, organic and inorganic compounds of precious metals.</p> <p>Non-processed and semi-processed precious stones and metals.</p> <p>Waste and scrap of precious metals, waste and scrap of metals with additions of precious metals.</p> <p>The same Protocol contains the list of exemptions from free trade regime unilaterally applied by Uzbekistan:</p> <p>Export: Non-ferrous metals, rolled non-ferrous metals, non-ferrous metals waste and scrap; Crude oil, gas condensate, petrol of different types, gas-oil (diesel oil); Cotton fiber; Precious metals, precious metals alloys and products, waste and scrap of precious metals, natural precious stones and products from precious stones, waste and powder and recuperator of natural precious stones, pearls and pearls products, amber and amber products.</p> <p>Import: Drugs, toxins, narcotics and psychotropics, chemical herbicides.</p>
Macedonia	January 18, 2001	<p>Ten year transition period to implement the free trade regime</p> <p>FTA covers HS commodity groups 1–24 (agricultural goods) and 25–97 (industrial goods)</p> <p>Exemptions: mannitol, sorbitol, other aromatic mixtures of substances and mixtures, casein for textile fiber production and industrial purposes except producing foodstuff or forage, albumin and albumin derivatives, dextrin and other modified types of starch, fixing agents and dye meant for ink fixing, natural cork, disheveled or unbleached cotton, raw or processed flax other than spun including tow and waste, raw or processed cannabis sativa including tow and waste.</p>

Source: IER.

Box 6.3. Russo-Ukrainian Reciprocal Trade Protection Measures

Here are some recent salvos of the protracted trade confrontation between Russia and Ukraine. In 1999, Ukraine imposed special quotas on electric filaments, artificial furs, and worsted canvas, and, in 2000, on some polyurethane products. The same year, it replaced the quota on electric bulbs with an anti-dumping tariff of 97.5 percent for a period of five years. Russia immediately responded with anti-dumping tariffs on Ukrainian metal pipes. In 2001, after bilateral negotiations, Russian antidumping measures on pipes were lifted but replaced with negotiated quotas. In 2002, Ukraine imposed an anti-dumping tariff of 59.4 percent on crossing pieces. The same year it threatened to impose tariff quotas on a variety of Russian products from the textile and chemical industries if Russia re-introduced a special tariff on Ukrainian metal pipes. In 2002–04, Russia introduced safeguard tariffs on Ukrainian zinc, steel, rolled ferrous metal products, armature, ball bearings, caramel, cocoa-containing candies and confectionery products, corn starch, fire-bricks, baking soda, electric bulbs, syringes, and quotas on pipes and poultry products. Ukraine introduced safeguard tariffs on cars with an engine capacity of 1,000–1,500 cm³ (the majority of Russian-produced cars are in this category), matches, railway switches, and biscuits, and quotas on syringes, baking soda, and Portland cement. These measures are in effect as of mid-2004.

equivalent to about 3.5 percent of its 2003 non-energy exports to Ukraine, and Ukraine's damage is equivalent to 3.5 percent of its exports to Russia¹²⁹.

However, some impacts of these micro trade wars can be detected in bilateral trade. For instance, in 2001, Russia experienced a fall in machinery exports to Ukraine due to the imposition of a quota on car imports. In the same year, Ukraine experienced a dive in its metal products exports to Russia due to a quota on pipes. However, the negative impacts of these measures had been overcome by 2003, when both export flows exceeded their pre-2001 levels.

Nevertheless, the frequent application of contingent protection brings unnecessary uncertainty to CIS trade. Moreover, there is no established mechanism in the CIS which would govern dispute resolution cases and provide for some protection of exporters' rights. In addition, the competition policy within the bloc remains largely unregulated. As a result, current CIS trade could be legally affected by possible export subsidies of different types. Adhering to WTO disciplines (in regulating both dispute resolution and export subsidization) would help to resolve acrid issues of contingent protection.

Another sour issue of Russo-Ukrainian trade relations until recently has been Russia's continued application of VAT on its exports of oil and gas to the CIS. Despite its general switch to a destination principle in taxation of foreign trade within the CIS, Russia preserved the old arrangements for its main fuel exports due to obvious fiscal reasons. In order to lower domestic energy prices, Ukraine decided to avoid double VAT taxation of fuel and it waived VAT on imports of these products, foregoing considerable amounts in potential tax revenues. Such direct VAT losses are estimated to be close to on average US\$650 million a year (1.5 percent of Ukrainian GDP). While some portion of this loss was ultimately recovered through

129. Other CIS countries also occasionally resort to trade safeguard measures. For instance, Kazakhstan used temporary protection measures from 1999 to 2000 on cement, metal pipes, agricultural products and foods. These measures were caused by weakened Kazakh trade competitiveness due to a relative appreciation of the Kazakh tenge vis-à-vis the currencies of its main trading partners in the CIS (due to the 1998 Russia crisis) and were lifted soon after the depreciation of the tenge.

taxation of domestic energy users, net fiscal costs remained considerable due to various leakages in the system.¹³⁰ However, the goal of keeping domestic prices on energy products in Ukraine low has been generally achieved. For instance, in the summer of 2004, the price of gasoline in Ukraine was only 10 percent higher than in Moscow (55 US cents versus 50 US cents per liter of grade A95). In the summer of 2004, Russia announced this export tax would be eliminated in early 2005, thus removing a major bilateral trade problem.

CIS members' trade benefits from rather liberal rules of origin introduced by the bloc. The basic criterion of sufficient processing is a change in tariff heading. According to this rule, a product is considered to be of CIS origin if it is fully produced in the CIS country or, when imports are used in its production, if the designation of the product is different from the designation of the inputs according the 4-digit Harmonized System classification.¹³¹ Two other rules are *ad valorem* (50 percent value added in the free trade area) and technological requirements (specified technological operations performed in the free trade area). The *ad valorem* rule allows for the full cumulation of origin among all 12 CIS countries and, hence, all materials originating in the CIS area can be included to satisfy requirements concerning sufficient domestic processing. These rules of origin do not seem overly restrictive, although the 50-percent value added requirement appears quite demanding.

CIS members also recognize each other's standards according to their 1992 Mutual Recognition Agreement (amended in 2000). The Agreement established the Interstate Council on Standards, Metrology, and Certification, which develops a system of harmonized (mutually recognized) standards. The harmonized set of standards is, however, only a part of the national standards systems of each of the CIS members. The reciprocal recognition applies only to interstate standards, but does not cover national standards. Because most members introduce new national standards on an *ad hoc* basis, this leads to problems with mutual recognition.

As discussed in Chapter 4 of this report, Ukraine, together with Russia and other CIS members, faces a monumental task of the harmonization of standards with international norms. The process of harmonization is under way in all these countries, albeit at a different pace. It is important to ensure that common CIS standards do not act as a drag in this harmonization effort. The Interstate Council on Standards should reform the interstate CIS standards system in accordance with WTO guidelines and international standards systems.

At the same time, there are two main problems with the existing bilateral trade agreements in the CIS:

- A lack of permanency of the existing free trade agreements. Potential exemptions from the free trade regime create a degree of uncertainty with respect to future market access.
- The general weakness of mechanisms and rules to support the development of intra-bloc trade affairs. This includes lack of a transparent mechanism of dispute resolution with respect to potential contingency measures.

A number of CIS and bilateral agreements on transit have been largely ineffective and failed to bring about free transit in the region, despite the fact that many of these agreements

130. It is worth noting that, because of its limited effect on the real sector, full economic costs of this taxation to Ukraine are considerably lower than its fiscal costs.

131. This is the default principle. However, a number of goods are exempted from this rule.

provide for national treatment of CIS transportation companies. The principle of transit freedom is upheld in the above-mentioned FTAs, as well as in specialized CIS agreements, such as Agreement on Transit through the Territories of CIS members (1997), Agreement on Common Transport Policies in the CIS (1997), the Agreement on Transport Tariffs in the CIS (1997), and others. However, these agreements in their current form are more like political statements rather than practical implementation arrangements. Ukraine has not been providing a reliable and free transit corridor for its neighbors so far. The history of transit disputes with and complaints by Moldova and Russia has been quite long and expansive. The Ukrainian Government's policy on transport tariff regulation (especially, on railways and pipelines) maintains the protection of the domestic market as one of its main goals.

Customs regulations in the CIS create yet another barrier for the flow of trade in the region. Despite Customs cooperation agreements within the CIS and a number of bilateral agreements, transit countries do not always recognize the seals and documents of transiting countries. Moreover, transit countries tend to create extra hurdles in customs clearance, often in violation of the existing agreements. These hurdles include mandatory high-cost customs conveying, insurance, and other high fees.

While many existing agreements in the CIS do not operate properly, there is a clear tendency within the CIS to propose new, ever more complex, schemes of cooperation. The new Agreement on the Single Economic Space (SES) has recently initiated a new integration effort. The SES includes the four largest out of twelve CIS members (Russia, Ukraine, Kazakhstan, and Belarus). The declared intentions of contracting parties are very ambitious and present a mixture of different elements belonging to different types of regional integration arrangements, such as free trade zone without exceptions and limitations, a Customs Union, and even an economic and monetary union.¹³² International experience suggests that the process of regional integration has its own logic of transition from one integration stage to another: Free Trade Area → Customs Union → Common Market → Economic and Monetary Union → Political Union. At this point, it is important for SES partners to sequence properly the proposed integration efforts.

It is worth noting that there is a fundamental contradiction between Ukraine's aspirations to join the EU (which among other things is a customs union on its own) and the language of signed SES declarations that suggests a future formation of the customs and monetary union. Ukraine's membership in two customs unions simultaneously could be possible only if these two regional blocks merge. Thus, in the longer term, simultaneous economic integration into the EU and the SES does not represent a sustainable strategy. However, in the medium term, Ukraine could and should pursue its free trade agenda in both directions (EU and SES) in parallel.

Improving the functioning of the existing free trade zone in the CIS should be the first priority¹³³ at least due to the following reasons:

132. Polese (2003) argues that the establishment of SES is driven primarily by political, but not economic considerations.

133. According to Ukrainian President Kuchma, "Our position has remained unchanged: completing the creation of full scale free trade zone without exemptions and restrictions is a priority task within the context of Single Economic Space formation." President's Speech at the meeting of the Heads of States that signed the Agreement on SES formation, March 24, 2004. <http://www.president.gov.ua/activity/zayavinterv/performance/256167180.html>

- A free trade zone is much easier to implement than a customs union. At the same time, the free trade zone would not hamper the process of WTO accession.
- All SES contracting parties had already signed bilateral free trade agreements and the plurilateral free trade agreement. Thus, there is a good foundation to build upon.

Future transition from a free trade area to a customs union (and to higher integration arrangements) would depend primarily upon experience gained and mutual trust among the partners. These pre-conditions have still to be met because so far the free trade zone in the CIS has not been working properly. A heavy political flavor of integration discussions and earlier multiple failures to accelerate real integration within the CIS neither strengthen mutual trust nor help to make a discussion of complex integration issues more constructive. Yet it is too early to judge whether the SES initiative will be more successful than similar politically motivated attempts in the past (from the CIS Customs Union to EURASEC and to Russia-Belarus union state).

After individual CIS members join the WTO, it would help them to make the operations of their regional trade bloc more predictable and generally more efficient. WTO membership is important as a tool for establishing the rule-based behavior of CIS countries. At of now, the CIS bloc lacks some basic features of a multilateral trade integration unit, as defined by the WTO. Bringing WTO principles and disciplines to the rescue would strengthen intra-CIS trade links. In addition, harmonization of the regulatory regimes through the WTO would bring the regulatory environments of Ukraine and its CIS partners closer.

It is clear that Ukraine needs to preserve and further develop mutually beneficial links with the CIS countries in order to secure market access for Ukrainian products and the supply of critically important inputs (especially energy and other resources). At the same time, enhancing CIS cooperation must not prevent Ukraine from further integration into the world economy, WTO accession, and European integration. From this perspective, it is important for Ukraine to avoid specific commitments within the SES initiative, which potentially could become a barrier for its completion of WTO accession. In particular, the following points are worth noting:

- While improving free trade arrangements in the CIS is clearly in Ukraine's interests, harmonizing external tariff with the members of the proposed customs union could become a major problem with the WTO accession process because it may require re-starting negotiations on the tariff offer. (It is unlikely that a future common tariff in the potential Customs Union¹³⁴ would be identical to the one proposed by Ukraine in its WTO bid.) Moreover, so far Russia has been following a much more protectionist strategy (which in part reflects the peculiarities of its industrial structure) than Ukraine. It is questionable that under the circumstances aligning its tariff structure with Russia is in Ukraine's longer-term interests, if the latter is serious about its European integration.
- It is also difficult to find justification for a proposed strategy that would require the close coordination of WTO accession among SES partners. Such coordination, given

134. It is easy to predict that reaching a compromise on a common external tariff would be a major stumbling block for SES members and this could put at risk the entire SES project.

existing coordination problems in the CIS, poses the risk of considerable delays in decision making. Each partner should continue its WTO bid at the pace it considers appropriate for its situation. What would be sufficient as a safeguard measure is signing a separate agreement among SES partners, under which those who enter the WTO first would avoid imposing new policy requirements on others.

Strengthening Institutional Framework for Trade Policy Formulation

Trade-related institutions are critically important for the success of Ukraine's integration aspirations and advancing the trade reform agenda. The mere complexity of trade policymaking and implementation requires an institutional framework with clearly defined responsibilities, strong coordination mechanisms and efficient communication channels with the main non-government stakeholders and the general public.

Currently, such a framework in Ukraine remains under-developed. As was discussed in Chapter 5, it is affected by: (i) weak intra-agency coordination, (ii) insufficiency of the mandate of the Ministry of Economy and European Integration (MEEI), the primary agency responsible for trade policy, for effective control of sectoral interests, and (iii) inadequate participation of other main stakeholders, primarily Rada and the private sector, in elaboration of trade policies.

The central responsibility for coordinating trade policy in Ukraine belongs to the MEEI, although other ministries have their own trade departments. Within the MEEI, the Department for Multilateral Economic Cooperation (MEC) plays the central role in formulating overall national trade policy and designing the mechanisms of its implementation. It is responsible for preparing policy proposals to the government and for final approval of documents submitted by Ukraine to the WTO Secretariat. According to the Government Decree, all draft laws on economic and regulatory matters have to be checked by the MEC for their conformity with WTO Agreements before they can be submitted by the Government to Rada.

However, in practice inter-agency coordination remains rather weak and is rather formal in nature. While the establishment of the Inter-Agency Commission on Ukraine's WTO accession, chaired by the deputy Prime Minister, was an adequate approach toward resolving problems of coordination, so far, the commission has not been able to operate efficiently. This issue requires immediate attention.

At the same time, government procedures are not sufficiently flexible, which often becomes a major barrier for timely resolution of relatively simple problems (see Box 6.4). Individual ministries and governmental agencies often try to conduct their own "sectoral trade policies" that are not necessarily consistent with Ukraine's international obligations. Moreover, some sectoral ministries, such as e.g., the Ministry for Agricultural Policy and the Ministry for Industrial Policy, instead of formulating government policies for the sector in question, often lobby for policies that *represent* sectoral interests. There is also a simplistic view of trade policy coordination as mere bargaining among different interests in the government and the business community.

At the same time, the MEEI does not share information about the status of WTO negotiations and the real stumbling blocks on the way to accession. Many key players (e.g., business leaders, parliamentarians, and government officials) remain uninformed about both the

actual state of Ukraine's accession process, as well as the implications—positive or negative—of membership. In part, unavailability of up-to-date information to the general public narrows public support for trade reforms. It generally weakens the position of the WTO negotiating team in its dialogue with sectoral groups and other opponents.

A major problem of trade-related institutional arrangements in Ukraine derives from the government capture—close interlinks between specific business interests and the government (not unlike in other post-Soviet countries). Many leading businessmen have been elected to Rada and directly represent their business interests in Parliament. At the same time, government officials directly or indirectly pursue their own business interests. Overall, specific business interests are well organized and have proved capable of passing new legislation in Rada, which benefit them directly, without much consultation with the Government.

Box 6.4. Adoption of the EU Technical Regulations

As part of its commitments under the PCA, Ukraine agreed to implement the EU's "New Approach" technical regulatory regime. An important part of this commitment relates to the approval of 11 government regulations that would give certain EU Council directives the status of domestic Ukrainian regulations. These are Ukraine's first true "technical regulations": they impose only very general health or safety requirements and give businesses considerable flexibility in how they demonstrate compliance. They therefore serve as important milestone in a broader program of standards reform. For this reason, adoption of these regulations was also selected as a benchmark for the government's PAL II program, supported by the World Bank.

These regulations are little more than translations of EC directives. (Direct translation and adoption of EU technical regulations and standards was exactly the procedure that several central European countries employed to meet EU accession deadlines.) Thus, one could expect that adopting them in Ukraine should be a quick and simple process. In reality, however, the government's approach to their adoption was the same as if they were brand-new regulations: they were circulated to all affected ministries and technical bodies for comment and revision, and then were sent to the Cabinet of Ministers for more review and final approval. After the changes in the Cabinet in late 2002, the whole process had to start over again. By December 2003, only one out of the 11 regulations had been approved.

During the PAL II negotiations, the World Bank team argued that the standard approval process was not relevant in this case and that GOU needed to employ a special fast-track procedure. At the end of 2003, the head of the State Committee on technical regulations (DSSU) finally received authority from the Cabinet of Ministers to approve the new technical regulations on his own, without having to send them up to the Cabinet. He signed off on 10 remaining regulations on December 31, 2003. It is worth noting that it took more than four additional months for regulations to get registered by the Ministry of Justice and thus become effective.

The DSSU should use its new authority and current momentum to quickly approve all the remaining regulations that correspond to the EU New Approach technical directives (about 20 of them). It appears realistic to target the middle of 2005 as a completion date for this task.

These institutional deficiencies lead to a number of problems in trade policy formulation and implementation. One is the widespread practice of granting privileges to trade and economic actors, such as the direct and indirect support of specific sectors (see other Chapters of this report for examples of such practices). In the past, important WTO-compliant laws were blocked by coalitions of sectoral interests, and WTO supporters in the government were not able either to directly prevail over this opposition or to find a workable compromise on the matter.

In the future, WTO disciplines could serve as a remedy against unrestrained protectionist pressures. Thus WTO accession should be viewed as both an instrument of integrating Ukraine into a multilateral trade system and a way of locking the country's policies on the path of trade reforms.

The system of trade policy elaboration in Ukraine should be gradually reformed with the goal of making it more efficient, expedient, flexible, and transparent. A new system should be based on the following broad principles¹³⁵:

- Establishing a clear, internally coherent and well articulated trade strategy that is closely integrated with the overall economic strategy of the country. The strategy has to have a longer-term view of the country's development priorities and integration prospects.
- Setting efficient mechanisms of intra-governmental trade policy coordination to be conducted through the existing Inter-Agency Commission chaired by the Deputy Prime Minister, but the Government has to review and upgrade its operational procedures and mandate. The Commission has also to operate as a "gatekeeper" capable of stopping policy decisions that are non-compliant with WTO provisions, and more generally enforce prioritization of strategic integration objectives over specific sectoral development goals.
- Setting efficient mechanisms for consultations among key stakeholders, such as government, business community and civil society. The consultative process should become automatic and transparent. A more formalized model of consultations in the "Government-business associations" format has yet to be developed to replace the existing informal lobbying through mostly personal and informal relations.
- Strengthening mechanisms for collection, dissemination, and analysis of trade and trade-related information. Economic agents today are often not well aware of global trends in their respective areas, which sometimes leads to biased perceptions of trade liberalization policies.
- Formation of trade supporting institutions, including think tanks, consulting companies, government entities responsible for trade facilitation, etc., fostering a networks of trade experts in different fields.

WTO accession would require considerable changes to the method by which the government runs its daily business. It is important for the GOU to appreciate in advance a scope of forthcoming changes and start necessary preparation without much delay. Some of the important tasks that require urgent attention are the following:

- The government has to develop a coherent longer-term framework to harmonize its real sector policies that up to now have been largely developed either sector-by-sector (various programs of development of agriculture, metallurgy, and so forth) or driven by external commitments. In particular, the existing Concept of Industrial Policy (adopted in 1996 and amended in 2000) has to be revised to make its policy principles and instruments compatible with WTO requirements. This document

135. See for example OECD (2001) for the principles of establishing a modern framework for trade policy development and implementation.

- should become a set of clear guidelines for governmental agencies with respect to the preparation of specific sectoral programs. The same recommendation is relevant to the Program of Export Stimulation adopted by the Cabinet of Ministers on October 26, 2001, as well as to a number of sector-specific government development programs.
- In line with the WTO Agreement on Subsidies and Countervailing Measures, the GOU will have to reconsider its current policy of supporting specific groups of domestic producers. It has to prepare a special Law “On State Subsidies,” which would incorporate the basic principles of the effective allocation of state support such as accountability, transparency, adequate institutions, and limited scope and duration of state aid.¹³⁶
 - WTO membership will require financing relatively large investments in modernization and harmonization of various institutions involved in the conduct of trade and investment policies. The GOU has to develop estimates for such incremental costs related to WTO commitments and take them into account while developing medium-term budget expenditure projections.
 - Ukraine needs to develop an effective notification system for WTO members on Ukraine’s legislation, trade policies and practices. This obligation will provide additional transparency in the system.
 - After WTO accession, the GOU will have to publish a set of documents carefully explaining to other stakeholders and the general public Ukraine’s commitments and their implications for future policy-making.

Conclusions

The institutional framework for trade policy elaboration and implementation in Ukraine requires considerable reforms aimed at strengthening intra-Governmental coordination and more efficient control of sectoral and group interests.

Ukraine needs to formulate a realistic trade policy strategy which anticipates a fairly protracted period of economic development outside of the EU. This should not preclude Ukraine from pushing aggressively the agenda of economic integration with the EU. Ukraine should fully utilize potential benefits of the new EU neighborhood initiatives. It also has to be prepared to negotiate a FTA with the EU and remove the main stumbling block on the way to such negotiations—non-membership in WTO.

Completing WTO accession should be considered as an overriding policy priority for Ukraine, which has to dominate over specific interests of particular sectoral and business groups. WTO accession must be viewed not just as an instrument of global integration, but also as a tool of advancing domestic economic reforms. Further delays with WTO accession may mean that Ukraine would miss the existing chance of accelerating its economic integration with the EU.

As a member of the CIS, Ukraine benefits from the free trade area, the mutual recognition of standards, and generally non-restrictive rules of origin. However, the existing arrangements within the CIS trade bloc are deficient: (i) free trade agreements lack stability, (ii) potential exemptions from the free trade regime create a degree of uncertainty with respect

136. The Antimonopoly Committee of Ukraine has already proposed the draft Law “On State Support.”

to future market access, and (iii) a weak mechanism for dispute resolution has a stifling effect on trade; and free transit and efficient customs cooperation have not been achieved.

The CIS clearly needs further reform to address the deficiencies in the bloc setup and operations. CIS countries should introduce WTO-style principles and disciplines in their intra-bloc affairs independently of their joining the WTO. The harmonization of the regulatory regimes in the CIS should be WTO and EU-compatible.

The success of the new SES initiative is so far impossible to assess. It may repeat the fate of the earlier multiple failed integration efforts within the CIS, but could also bring improvements into the operation of the trading bloc, albeit for a small number of participants. At this point, it is important for SES partners to accept the mutually agreed core integration measures and adequately sequence their efforts. It is in Ukraine's interests to improve efficiency of the free trade zone in the CIS, but entering into a new customs union may have a detrimental effect on its long-term interests, including deeper integration with the EU.

Statistical Annex

	1997	1998	1999	2000	2001	2002	2003
Table A1. Foreign Trade Statistics' Sources: A Comparison							
Export of goods, US\$ mil.							
SSC (FOB)	14232	12637	11582	14573	16265	17957	23080
NBU (FOB)	15418	13699	13189	15722	17091	18669	23739
DOTS	14232	12637	11582	14579	16126	17872	—
WITS	14217	12637	11582	14573	16265	17927	—
Difference between sources							
NBU—SSC	1186	1062	1607	1149	826	712	659
DOTS—SSC	0	0	0	6	-139	-85	—
WITS—SSC	-15	0	0	0	0	-30	—
Export of goods, %GDP							
SSC (FOB)	28.4	30.2	36.7	46.6	42.8	42.4	46.8
NBU (FOB)	30.7	32.7	41.8	50.3	45.0	44.1	48.1
DOTS	28.4	30.2	36.7	46.6	42.4	42.2	—
WITS	28.4	30.2	36.7	46.6	42.8	42.3	—
Difference between sources							
NBU—SSC	2.4	2.5	5.1	3.7	2.2	1.7	1.3
DOTS—SSC	0.0	0.0	0.0	0.0	-0.4	-0.2	—
WITS—SSC	0.0	0.0	0.0	0.0	0.0	-0.1	—
Import of goods, US\$ mil.							
SSC (CIF)	-17128	-14676	-11846	-13956	-15777	-16977	-23021
NBU (FOB)	-19623	-16283	-12945	-14943	-16893	-17959	-24008
DOTS	-17113.8	-14675.5	-11844.3	-13954.7	-15694.4	-16800.2	—
WITS	-17124.9	-14676	-11846.1	-13956	-15775.1	-16975.9	—
Difference between sources							
NBU—SSC	-2495	-1607	-1099	-987	-1116	-982	-987
DOTS—SSC	14	1	2	1	83	177	—
WITS—SSC	3	0	0	0	2	1	—
Import of goods, %GDP							
SSC (FOB)	-34.2	-35.0	-37.5	-44.6	-41.5	-40.1	-46.6
NBU (FOB)	-39.1	-38.9	-41.0	-47.8	-44.4	-42.4	-48.6
DOTS	-34.1	-35.0	-37.5	-44.6	-41.3	-39.7	—
WITS	-34.2	-35.0	-37.5	-44.6	-41.5	-40.1	—
Difference between sources							
NBU—SSC	-5.0	-3.8	-3.5	-3.2	-2.9	-2.3	-2.0
DOTS—SSC	0.0	0.0	0.0	0.0	0.2	0.4	—
WITS—SSC	0.0	0.0	0.0	0.0	0.0	0.0	—

Source: SSC; NBU; DOTS; WITS.

	1997	1998	1999	2000**	2001	2002	2003
Current account*	-1335	-1296	932	1237	1402	3173	2891
Trade balance	-1536	-1207	1095	1331	613	1857	1288
<i>Export of goods and services*</i>	20355	17621	16332	19278	21086	23351	28953
<i>Import of goods and services</i>	21891	18828	15237	-17947	20473	21494	27665
Merchandise trade balance	-4205	-2584	-482	535	198	710	-269
Merchandise exports*	15418	13699	12463	15478	17091	18669	23739
Merchandise imports	19623	16283	12945	-14943	16893	17959	24008
Balance of trade in services	2669	1377	1577	796	415	1147	1557
Export of services	4937	3922	3869	3800	3995	4682	5214
Import of services	-2268	-2545	-2292	-3004	-3580	-3535	-3657
Net income	-644	-871	-869	-942	-667	-606	-581
Net current transfers	845	782	706	848	1456	1922	2184
Capital and financial operations account	1413	-993	-163	-516	-188	-1050	247
Capital account	0	-3	-10	-8	3	15	-17
Financial account	1413	-990	-153	-508	-191	-1065	264
Direct investment	581	747	489	594	769	698	1411
Portfolio investment	1603	-1031	-86	-201	-866	-1716	-922
Other investment	-771	-706	-556	-901	-94	-47	-225
Medium-term and long-term	-65	-567	-463	-154	-306	124	418
Guaranteed	-324	-760	-272	-424	-538	-367	-363
<i>Received</i>	545	358	157	109	165	118	140
<i>repaid (schedule)**</i>	-869	-1118	-429	-533	-703	-485	-503
non-guaranteed	259	193	-191	270	232	491	781
Short-term capital	-706	-139	-93	-747	212	-171	-643
Errors and omissions	-785	-810	-954	-150	-231	-885	-953
Balance	-707	-3099	-185	571	983	1238	2185
Financing	707	3099	185	-571	-983	-1238	-2185
Reserve actives	-383	1324	-283	-398	-1606	-1045	-2045
Net use of IMF credits	285	275	78	-604	-79	-191	-215
<i>Used</i>	285	381	635	245	375	0	0
<i>Repaid</i>	0	-106	-557	-849	-454	-191	-215
Exclusive financing	805	1500	390	431	702	-2	75
Government debt	805	1418	390	70	310	0	75
Restructuring	0	82	0	0	244	333	282
Indebtedness	0	0	0	361	148	-335	-282
("+" = accumulation, "-" = repayment)							

*Without value of goods given to Russia for repayment of debts:

In 1999 the value was equal to \$mIn 726 according to the agreement on the Black Sea fleet.

In 2000 the value was equal to \$mIn 274 in exchange for debt of NAK "Naftogaz Ukrainy" owed to JSC "Gazprom."

**In 2000 without mutual settlement of state external debt of Ukraine according to the agreement between Ukraine's and Russia's governments signed on May 28, 1997.

Source: NBU.

Table A3. Merchandise Trade Balance, Exports and Imports of Ukraine in 1990–1994
(\$ mil.)

	1990	1991	1992	1993	1994	1994–1990 change
Trade Balance	–3655	–14419	–663	–1916	–763	2892
Exports, Total	78336	58098	11262	11969	12105	–66231
Inter-FSU Exports	64947	49598	5262	5669	7457	–57490
Exports to ROW	13389	8500	6000	6300	4648	–8741
Imports	81991	72517	11925	13885	12868	–69123
Inter-FSU Imports	66083	61217	6425	9185	8521	–57562
Imports to ROW	15908	11300	5500	4700	4347	–11561
% change						
Trade Balance		294.5	–95.4	189.0	–60.2	–79.1
Exports		–25.8	–80.6	6.3	1.1	–84.5
Inter-FSU Exports		–23.6	–89.4	7.7	31.5	–88.5
Exports to ROW	–2.8	–36.5	–29.4	5.0	–26.2	–65.3
Imports		–11.6	–83.6	16.4	–7.3	–84.3
Inter-FSU Imports		–7.4	–89.5	43.0	–7.2	–87.1
Imports to ROW	8.6	–29.0	–51.3	–14.5	–7.5	–72.7
% share						
Exports	100	100	100	100	100	
Inter-FSU Exports	82.9	85.4	46.7	47.4	61.6	–21.3
Exports to ROW	17.1	14.6	53.3	52.6	38.4	21.3
Imports	100	100	100	100	100	
Inter-FSU Imports	80.6	84.4	53.9	66.2	66.2	–14.4
Imports to ROW	19.4	15.6	46.1	33.8	33.8	14.4

*Inter-republican trade is estimated at official / commercial exchange rate.

Source: *Foreign Trade Statistics in the USSR and Successor States*, edited by M. Belkindas and O. Ivanova; WITS, COMTRADE (1995).

Table A4. Geographic Structure of Merchandise Exports in 1996–2003
(Percent)

	1996	1997	1998	1999	2000	2001	2002	2003	2003– 1996 change	2003– 1999 change
Total, \$ million	14400.8	14231.9	12637.4	10332.7	14572.6	16264.7	17957.1	23080.2		
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
CIS	51.4	39.2	33.3	27.7	30.9	28.7	24.4	26.2	–25.2	–1.5
Belarus	5.0	5.8	4.3	3.0	1.9	1.5	1.5	1.5	–3.5	–1.5
Kazakhstan	0.6	0.7	0.7	0.4	0.5	0.7	1.1	1.3	0.7	0.9
Moldova	1.7	2.1	1.4	1.0	1.2	1.7	1.7	2.1	0.5	1.1
Russia	38.7	26.2	23.0	20.4	24.1	22.6	17.8	18.7	–20.0	–1.8
Turkmenistan	1.9	1.2	1.0	0.8	1.0	0.7	0.6	0.8	–1.1	0.0
Uzbekistan	1.2	1.7	1.1	0.7	0.8	0.7	0.4	0.4	–0.9	–0.3
ROW	48.6	60.8	66.7	72.3	69.1	71.3	75.6	73.8	25.2	1.5
Europe	22.2	24.2	29.8	36.7	30.0	32.4	36.3	39.7	17.5	3.0
EU	11.1	12.3	16.8	20.5	16.2	17.3	19.7	19.8	8.7	–0.7
Austria	0.7	0.8	1.1	0.9	1.1	1.1	1.3	1.1	0.4	0.2
Belgium	0.5	0.6	0.7	1.4	0.7	0.5	0.7	0.6	0.1	–0.8
Denmark	0.0	0.1	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.1
Finland	0.2	0.3	0.2	0.1	0.2	0.2	0.2	0.1	0.0	0.0
France	0.8	0.7	0.9	0.6	0.8	0.6	0.6	0.7	–0.1	0.1
Germany	2.9	4.0	5.1	4.0	5.1	3.3	4.2	6.2	3.2	2.1

(continued)

Table A4. Geographic Structure of Merchandise Exports in 1996–2003 (*Continued*)
(Percent)

	1996	1997	1998	1999	2000	2001	2002	2003	2003– 1996 change	2003– 1999 change
Great Britain	0.9	0.6	0.9	0.8	0.9	1.8	3.0	1.3	0.4	0.5
Greece	0.7	0.6	0.5	0.6	0.3	0.8	0.6	0.7	0.0	0.0
Ireland	0.4	0.2	0.7	1.7	0.2	0.0	0.0	0.0	–0.4	–1.7
Italy	2.4	2.8	4.4	3.2	4.4	3.8	4.6	5.5	3.1	2.3
Luxembourg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Netherlands	0.7	0.9	0.9	0.6	0.9	2.0	1.6	2.1	1.4	1.5
Portugal	0.1	0.1	0.1	0.1	0.1	0.6	0.5	0.2	0.1	0.1
Spain	0.6	0.8	1.0	0.8	1.1	2.2	2.1	0.9	0.3	0.1
Sweden	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1
EU Accession	9.9	10.0	10.8	8.2	11.4	12.2	12.5	14.3	4.5	6.2
Cyprus	0.3	0.3	0.8	0.3	1.2	1.8	1.1	1.2	0.9	0.9
Czech Republic	1.0	1.2	1.4	1.0	1.3	1.2	1.0	0.9	–0.1	–0.1
Estonia	0.4	0.3	0.4	0.4	0.4	0.3	0.5	1.6	1.2	1.2
Hungary	2.6	2.2	2.1	1.9	2.2	2.1	2.9	3.7	1.1	1.8
Latvia	0.5	0.6	0.6	0.4	1.1	1.5	1.3	1.2	0.6	0.7

Lithuania	0.9	0.7	0.8	0.6	0.6	0.9	1.1	1.0	0.1	0.4
Malta	0.0	0.0	0.2	0.2	0.0	0.1	0.1	0.1	0.1	-0.1
Poland	2.5	2.7	2.5	1.9	2.9	2.2	2.8	3.3	0.8	1.4
Slovakia	1.6	2.0	1.9	1.4	1.6	1.2	1.6	1.3	-0.3	-0.1
Slovenia	0.1	0.0	0.1	0.1	0.1	0.9	0.1	0.1	0.0	0.0
Bulgaria	1.0	1.1	1.6	2.1	2.6	1.8	1.5	1.4	0.5	-0.6
Romania	1.1	1.0	1.3	0.4	1.1	1.2	1.9	2.2	1.1	1.7
Asia	18.8	26.9	23.7	22.7	23.6	24.4	28.2	23.4	4.6	0.7
China	5.3	7.7	5.8	5.6	4.3	1.8	3.9	4.3	-1.0	-1.3
Turkey	2.8	4.7	5.5	4.8	6.0	4.3	6.9	3.9	1.1	-0.9
Africa	1.5	3.3	4.4	4.5	5.0	3.9	5.9	5.4	4.0	0.9
Egypt	0.7	1.3	1.5	1.3	1.5	1.0	1.8	1.3	0.6	0.0
America	4.2	4.6	6.8	4.5	8.4	6.2	5.2	5.3	1.1	0.8
USA	2.6	2.1	4.0	2.9	5.0	3.5	2.9	3.1	0.5	0.2
Australia and Oceania	0.1	0.1	0.1	0.3	0.0	0.0	0.0	0.0	-0.1	-0.3

Source: SSC.

Table A5. Geographic Structure of Merchandise Imports in 1996–2003
(Percent)

	1996	1997	1998	1999	2000	2001	2002	2003	Change (1996– 2003)	Change (1999– 2003)
Total, US\$ million	17603	17128	14676	10385	13956	15775	16977	23021		
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
CIS	63.5	57.7	53.8	57.8	57.6	56.0	52.8	50.0	–13.5	–7.8
Belarus	2.2	2.3	2.4	2.9	4.3	2.6	1.5	1.5	–0.7	–1.4
Kazakhstan	1.4	2.4	2.4	1.3	3.0	4.2	2.3	2.1	0.8	0.8
Moldova	0.4	0.4	0.3	0.2	0.3	0.4	0.3	0.2	–0.2	0.0
Russia	50.1	45.8	48.1	48.0	41.7	36.9	37.2	37.6	–12.5	–10.5
Turkmenistan	8.8	5.7	0.0	4.6	6.8	10.5	11.1	7.6	–1.2	3.0
Uzbekistan	0.3	0.7	0.2	0.3	1.3	1.2	0.2	0.7	0.4	0.4
ROW	36.5	42.3	46.2	42.2	42.4	44.0	47.2	50.0	13.5	7.8
Europe	24.8	29.5	31.5	34.2	29.3	30.2	33.9	35.5	10.6	1.3
EU	15.4	19.4	21.6	23.1	20.6	21.7	23.8	25.2	9.8	2.1
Austria	1.0	1.3	1.3	0.5	1.3	1.3	1.3	1.4	0.4	0.9
Belgium	0.7	0.6	0.9	0.4	1.0	1.0	1.1	1.0	0.3	0.6
Denmark	0.4	0.6	0.5	0.2	0.5	0.2	0.6	0.7	0.3	0.5
Finland	0.9	0.7	0.8	0.2	0.7	0.8	1.0	1.3	0.4	1.1
France	0.8	1.8	2.0	0.5	1.7	1.9	2.1	2.3	1.5	1.8
Germany	6.1	7.6	8.6	2.1	8.1	3.4	9.8	9.9	3.8	7.8
Great Britain	1.1	1.4	1.4	0.3	1.5	0.4	1.5	2.5	1.3	2.1
Greece	0.3	0.4	0.2	0.2	0.3	1.1	0.2	0.2	–0.1	0.0
Ireland	0.3	0.3	0.3	0.1	0.2	0.5	0.1	0.1	–0.2	0.0

Italy	1.9	2.3	2.8	0.9	2.5	1.1	2.7	2.8	0.9	1.9
Luxembourg	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1
Netherlands	1.1	1.1	1.1	0.3	1.1	0.3	1.3	1.2	0.1	0.9
Portugal	0.0	0.0	0.0	0.0	0.1	2.0	0.1	0.1	0.1	0.1
Spain	0.3	0.5	0.5	0.2	0.7	0.2	0.6	0.7	0.3	0.5
Sweden	0.3	0.8	1.0	0.3	1.1	1.1	1.3	1.1	0.8	0.8
EU Accession	7.4	9.6	10.3	10.1	7.5	6.1	8.1	8.5	1.1	-1.5
Cyprus	0.1	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.0	0.0
Czech Republic	0.9	1.3	1.4	0.3	1.2	1.3	1.3	1.4	0.4	1.1
Estonia	0.2	0.4	0.7	0.5	0.3	0.4	0.3	0.3	0.1	-0.2
Hungary	0.3	1.2	1.3	0.3	1.2	1.1	1.1	1.2	0.9	0.9
Latvia	0.5	0.5	0.3	0.4	0.3	0.2	0.2	0.2	-0.3	-0.2
Lithuania	0.9	1.4	1.6	0.7	1.0	0.7	0.7	0.6	-0.3	-0.1
Malta	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Poland	2.9	3.2	3.3	0.6	2.2	1.1	3.2	3.5	0.6	2.9
Slovakia	0.2	1.2	1.2	0.3	0.9	0.9	0.8	0.9	0.7	0.6
Slovenia	1.4	0.3	0.4	0.1	0.2	0.3	0.4	0.4	-1.0	0.3
Bulgaria	0.7	0.9	0.7	0.2	0.4	0.4	0.3	0.3	-0.5	0.0
Romania	0.5	0.5	0.3	0.1	0.3	0.1	0.2	0.2	-0.3	0.1
Asia	3.8	4.9	6.0	4.5	6.0	6.2	6.9	8.6	4.8	4.0
Africa	0.8	0.8	0.8	0.4	1.0	1.3	1.0	1.1	0.3	0.7
America	5.3	4.7	5.1	1.2	4.2	4.7	5.0	4.7	-0.6	3.4
USA	3.2	3.8	4.0	0.8	2.6	2.9	2.8	2.2	-1.1	1.4
Australia and Oceania	0.1	0.1	0.1	0.0	0.4	0.3	0.3	0.2	0.1	0.2

Source: SSC.

Table A6. Geographic Structure of Net Merchandise Exports in 1996–2003
(\$ mil.)

	1996	1997	1998	1999	2000	2001	2002	2003	Change (1996– 2003)	Change (1999– 2003)
Total	-3203	-2896	-2038	-53	617	490	980	59	3262	112
CIS	-3771	-4294	-3695	-3147	-3542	-4157	-4591	-5460	-1689	-2313
Belarus	338	434	195	2	-330	-163	-2	-3	-341	-6
Kazakhstan	-153	-310	-256	-93	-336	-549	-183	-186	-33	-93
Moldova	165	221	129	84	141	210	246	429	264	345
Russia	-3239	-4115	-4159	-2873	-2309	-2134	-3128	-4334	-1095	-1461
Turkmenistan	-1267	-796	120	-397	-798	-1548	-1773	-1569	-302	-1172
Uzbekistan	118	110	110	40	-64	-84	40	-77	-195	-117
ROW	568	1398	1657	3094	4159	4646	5571	5519	4951	2425
Europe	-1181	-1603	-860	243	289	505	765	990	2171	747
EU	-1106	-1573	-1051	-280	-527	-612	-508	-1240	-133	-959
Austria	-74	-117	-59	43	-21	-28	13	-66	8	-109
Belgium	-46	-20	-53	106	-28	-72	-66	-90	-44	-196
Denmark	-61	-90	-39	-3	-43	-1	-65	-94	-32	-91
Finland	-133	-83	-89	-8	-72	-89	-137	-268	-135	-260
Denmark	-30	-211	-181	11	-124	-193	-235	-373	-342	-383
Germany	-647	-740	-625	204	-393	-6	-903	-850	-203	-1054
Great Britain	-65	-145	-97	49	-65	226	274	-255	-189	-304
Greece	37	16	26	47	10	-56	65	105	68	59
Ireland	12	-18	45	161	1	-74	-23	-22	-34	-183
Italy	3	-5	142	240	293	447	367	623	621	383

Luxembourg	-11	1	-1	2	-8	-2	-8	-11	0	-13
Netherlands	-98	-72	-44	29	-9	279	71	201	299	171
Portugal	8	12	13	11	12	-219	73	28	20	18
Spain	33	32	51	61	63	334	271	58	24	-3
Sweden	-33	-133	-141	-23	-142	-152	-203	-226	-193	-203
EU Accession	116	-216	-141	-201	610	1023	869	1351	1236	1552
Cyprus	24	25	91	21	147	291	184	255	231	234
Czech Republic	-21	-46	-37	74	26	-9	-50	-98	-77	-172
Estonia	15	-29	-45	-11	9	-12	35	296	281	307
Hungary	323	121	69	166	162	165	336	580	257	414
Latvia	-15	-4	32	-1	123	215	200	210	225	211
Lithuania	-25	-140	-138	-11	-52	31	76	101	126	112
Malta	-5	0	27	18	4	4	20	26	31	8
Poland	-148	-170	-173	135	105	192	-31	-39	109	-174
Slovakia	196	75	75	111	107	53	156	88	-107	-22
Slovenia	-229	-48	-42	-1	-21	92	-57	-69	161	-68
Bulgaria	11	1	105	187	322	233	216	266	255	79
Romania	77	62	113	35	116	174	309	451	374	416
Asia	-531	-682	-674	-259	-449	-672	-897	-1646	-1114	-1387
Africa	19	12	42	9	28	-11	160	249	229	239
America	1780	3031	2242	2220	2857	3229	4211	4329	2549	2109
USA	-360	-178	-28	379	371	183	582	752	1113	373
Australia and Oceania	574	631	845	459	1163	961	885	1166	592	706

Source: SSC.

Commodity Structure in HS (1996–2003)

	HS code	1996	1997	1998	1999	2000	2001	2002	2003	2003– 1996 change	2003– 1999 change
Total, US\$ million		14401	14232	12637	10333	14573	16265	17957	23080		
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Agricultural produce	01–15	11.4	7.8	8.3	9.6	6.7	8.4	10.3	7.9	–3.5	–1.7
Food	16–24	9.7	4.8	2.6	2.6	2.8	2.8	3.0	3.9	–5.8	1.3
Mineral products	25–27	8.6	9.0	9.2	10.1	9.6	10.8	12.5	15.2	6.5	5.0
Chemicals	28–38	11.6	10.6	10.1	9.3	10.6	9.1	7.8	8.4	–3.2	–0.9
Wood and pulp&paper	44–49	0.4	0.4	0.8	1.3	1.5	1.4	1.6	1.7	1.4	0.4
Textile and apparel	50–63	2.7	3.2	4.0	3.9	3.7	3.8	3.6	3.3	0.7	–0.6
Ferrous metals and ferroproducts	72–73	30.7	38.3	38.4	37.2	39.0	33.3	33.0	33.8	3.1	–3.3
Non-ferrous metals	74–83	2.3	3.2	3.8	5.0	5.4	8.1	6.7	3.0	0.7	–2.0
Machinery and equipment	84–85	9.8	9.6	8.7	7.8	9.3	10.5	9.8	10.1	0.3	2.3
Vehicles	86–89	4.4	3.8	4.9	3.6	3.0	3.4	3.8	4.3	–0.1	0.7
Other		8.3	9.3	9.2	9.5	8.5	8.5	7.8	8.4	0.1	–1.2

Source: SSC.

Table A8. Growth Rates of Merchandise Exports by Commodity Groups in 1997–2003
(Percent)

	HS code	1997	1998	1999	2000	2001	2002	2003	<i>average change rate</i>	<i>min change rate</i>	<i>max change rate</i>
Total		-1.2	-11.2	-18.2	41.0	11.6	10.4	28.5	7.0	-18.2	41.0
Agricultural commodities	01–15	-32.4	-6.0	-5.3	-1.8	41.0	34.2	-0.8	1.5	-32.4	41.0
Food	16–24	-51.0	-51.7	-18.7	49.5	11.8	21.3	65.5	-6.1	-51.7	65.5
Mineral products	25–27	3.1	-9.3	-10.1	33.8	25.0	28.3	55.9	15.9	-10.1	55.9
Chemicals	28–38	-10.2	-15.0	-24.6	60.0	-4.1	-5.5	39.1	2.1	-24.6	60.0
Wood and pulp&paper	44–49	10.4	63.7	38.2	57.0	5.7	26.0	38.2	32.6	5.7	63.7
Textile and apparel	50–63	17.5	11.5	-20.1	34.1	14.2	6.6	16.9	10.4	-20.1	34.1
Ferrous metals and ferroproducts	72–73	26.6	-11.1	-20.8	48.1	-4.8	9.6	31.7	8.4	-20.8	48.1
Non-ferrous metals	74–83	33.4	7.9	6.1	51.9	67.3	-8.6	-42.2	10.8	-42.2	67.3
Machinery and equipment	84–85	-2.6	-19.4	-26.9	68.1	26.2	2.6	32.3	7.4	-26.9	68.1
Vehicles	86–89	-15.0	14.2	-39.7	17.8	25.3	25.6	42.8	6.4	-39.7	42.8

Source: SSC.

	HS code	1997	1998	1999	2000	2001	2002	2003	1996– 2003	1999– 2003
Total, % change		–1.2	–11.2	–18.2	41.0	11.6	10.4	28.5	60.3	82.6
Agricultural produce	01–15	–3.7	–0.5	–0.4	–0.2	2.7	2.9	–0.1	0.6	5.0
Food	16–24	–5.0	–2.5	–0.5	1.3	0.3	0.6	2.0	–3.9	3.7
Mineral products	25–27	0.3	–0.8	–0.9	3.4	2.4	3.0	7.0	15.0	15.7
Chemicals	28–38	–1.2	–1.6	–2.5	5.6	–0.4	–0.5	3.0	2.2	5.1
Wood and pulp&paper	44–49	0.0	0.3	0.3	0.8	0.1	0.4	0.6	2.5	2.2
Textile and apparel	50–63	0.5	0.4	–0.8	1.3	0.5	0.2	0.6	2.8	1.9
Ferrous metals and ferroproducts	72–73	8.2	–4.2	–8.0	17.9	–1.9	3.2	10.5	25.6	21.3
Non-ferrous metals	74–83	0.8	0.3	0.2	2.6	3.6	–0.7	–2.8	3.9	2.8
Machinery and equipment	84–85	–0.3	–1.9	–2.3	5.3	2.4	0.3	3.2	6.7	9.0
Vehicles	86–89	–0.7	0.5	–1.9	0.6	0.8	0.9	1.6	1.8	1.9
Other		–0.1	–1.1	–1.4	2.4	1.0	0.1	2.9	3.0	5.2

Source: SSC.

Table A10. Contributions to Exports Growth by Commodity Groups in 1997–2003
(Percent Share of Change)

	HS code	1997	1998	1999	2000	2001	2002	2003	1996– 2003	1999– 2003
Total		100	100	100	100	100	100	100	100	100
Agricultural produce	01–15	315	4	2	0	24	28	0	1	6
Food	16–24	424	22	3	3	3	6	7	–6	5
Mineral products	25–27	–23	7	5	8	21	29	24	25	19
Chemicals	28–38	101	14	14	14	–4	–5	11	4	6
Wood and pulp&paper	44–49	–3	–2	–2	2	1	4	2	4	3
Textile and apparel	50–63	–40	–3	4	3	5	2	2	5	2
Ferrous metals and ferroproducts	72–73	–696	38	44	44	–16	31	37	42	26
Non-ferrous metals	74–83	–67	–2	–1	6	31	–7	–10	6	3
Machinery and equipment	84–85	22	17	13	13	21	3	11	11	11
Vehicles	86–89	56	–5	11	2	7	8	6	3	2
Other		11	10	7	6	9	1	10	5	17

Source: SSC.

	HS code	1996	1997	1998	1999	2000	2001	2002	2003	2003–1996 change	2003–1999 change
Total, US\$ million		17603	17128	14676	10385	13956	15775	16977	23021		
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Agricultural produce	01–15	3.4	2.3	3.4	3.5	3.4	3.4	2.8	4.7	1.3	1.2
Food	16–24	4.8	2.9	3.8	3.7	3.2	3.7	3.8	4.8	0.0	1.1
Mineral products	25–27	49.9	47.6	43.1	48.3	46.9	42.6	41.5	36.8	–13.1	–11.4
Gas	2711	35.7	32.1	26.7	29.6	26.1	21.8	21.4	13.9	–21.9	–15.8
Oil and oil products	2709, 2710	9.8	12.1	14.0	13.6	16.6	19.1	19.8	18.3	8.5	4.6
Chemicals	28–38	5.8	7.3	6.8	6.6	6.4	7.1	8.1	7.7	1.9	1.1
Wood and pulp&paper	44–49	2.9	2.9	3.2	3.4	3.1	3.9	4.5	4.1	1.2	0.7
Textile and apparel	50–63	2.8	2.9	3.7	3.9	4.0	4.1	4.0	3.7	0.9	–0.2
Ferrous metals and ferroproducts	72–73	2.5	3.5	3.8	2.3	3.6	4.1	3.8	4.3	1.8	2.0
Non-ferrous metals	74–83	2.0	0.4	0.5	1.2	1.3	1.1	0.9	0.9	–1.1	–0.3
Machinery and equipment	84–85	13.7	15.2	15.6	12.5	13.9	15.1	14.7	15.1	1.4	2.6
Vehicles	86–89	3.2	5.0	6.0	4.6	3.6	4.7	6.0	8.1	4.9	3.5
Other		8.9	10.1	10.1	10.7	10.1	9.8	9.8	0.8	–0.3	

Source: SSC.

Table A12. Growth Rates of Merchandise Imports by Commodity Groups in 1997–2003
(Percent Change)

	HS code	1997	1998	1999	2000	2001	2002	2003	<i>average change rate</i>	<i>min change rate</i>	<i>max change rate</i>
Total		-2.7	-14.3	-29.2	34.4	13.0	7.6	35.6	3.9	-29.2	35.6
Agricultural produce	01–15	-33.7	25.6	-28.1	30.5	14.2	-11.6	127.2	8.7	-33.7	127.2
Food	16–24	-41.0	10.3	-30.2	14.2	34.3	8.5	71.5	3.8	-41.0	71.5
Mineral products	25–27	-7.2	-22.5	-20.7	30.5	2.8	4.8	20.3	-0.5	-22.5	30.5
Gas	2711	-12.8	-30.0	-7.9	2.1	-1.3	7.1	-9.4	-8.2	-30.0	7.1
Oil and oil products	2709, 2710	16.6	-16.1	-8.4	38.9	10.4	7.8	34.2	12.1	-16.1	38.9
Chemicals	28–38	21.1	-19.9	-31.5	31.7	25.5	22.0	28.8	8.1	-31.5	31.7
Wood and pulp&paper	44–49	-2.3	-5.4	-24.5	22.1	40.1	25.5	23.8	9.2	-24.5	40.1
Textile and apparel	50–63	-0.9	10.2	-25.1	38.0	15.5	4.0	26.6	8.0	-25.1	38.0
Ferrous metals and ferroproducts	72–73	-12.0	-10.0	-53.9	131.8	23.8	2.4	71.7	2.0	-53.9	131.8
Non-ferrous metals	74–83	-25.6	-0.6	-26.9	47.4	22.2	-27.2	23.7	-1.9	-27.2	47.4
Machinery and equipment	84–85	7.8	-12.0	-43.0	49.2	22.5	5.2	39.0	5.4	-43.0	49.2
Vehicles	86–89	50.9	3.1	-46.2	5.4	48.1	36.9	83.5	18.5	-46.2	83.5

Source: SSC.

	HS code	1997	1998	1999	2000	2001	2002	2003	1996– 2003	1999– 2003
Total, % change		-2.7	-14.3	-29.2	34.4	13.0	7.6	35.6	30.8	56.9
Agricultural produce	01–15	-1.1	0.6	-1.0	1.1	0.5	-0.4	3.5	-0.4	3.7
Food	16–24	-2.0	0.3	-1.1	0.5	1.1	0.3	2.7	-0.9	3.5
Mineral products	25–27	-3.6	-10.7	-8.9	14.7	1.3	2.0	8.4	-7.0	17.1
Gas	2711	-4.6	-9.6	-2.1	0.6	-0.3	1.5	-2.0	-14.0	-2.3
Oil and oil products	2709, 2710	1.6	-2.0	-1.2	5.3	1.7	1.5	6.8	7.1	14.7
Chemicals	28–38	1.2	-1.4	-2.1	2.1	1.6	1.6	2.3	2.9	5.5
Wood and pulp&paper	44–49	-0.1	-0.2	-0.8	0.8	1.3	1.0	1.1	2.0	3.3
Textile and apparel	50–63	0.0	0.3	-0.9	1.5	0.6	0.2	1.1	1.6	2.4
Ferrous metals and ferroproducts	72–73	-0.3	-0.4	-2.0	3.0	0.9	0.1	2.8	1.2	4.6
Non-ferrous metals	74–83	-0.5	0.0	-0.1	0.6	0.3	-0.3	0.2	-0.1	0.6
Machinery and equipment	84–85	1.1	-1.8	-6.7	6.2	3.1	0.8	5.8	2.2	8.9
Vehicles	86–89	1.7	0.2	-2.8	0.3	1.7	1.7	5.0	2.7	5.9
Other		3.9	10.4	0.6	-2.1	-0.8	-2.4	-2.0	33.6	-6.6

Source: SSC.

	HS code	1997	1998	1999	2000	2001	2002	2003	1996– 2003	1999– 2003
Total		100	100	100	100	100	100	100	100	100
Agricultural produce	01–15	43	–4	3	3	4	–5	10	–1	7
Food	16–24	73	–2	4	2	8	4	8	–3	6
Mineral products	25–27	132	75	31	43	10	27	24	–23	30
Gas	2711	170	67	7	2	–3	20	–6	–46	–4
Oil and oil products	2709, 2710	–60	14	4	15	13	20	19	23	26
Chemicals	28–38	–45	10	7	6	13	21	7	9	10
Wood and pulp&paper	44–49	2	1	3	2	10	13	3	6	6
Textile and apparel	50–63	1	–2	3	4	5	2	3	5	4
Ferrous metals and ferroproducts	72–73	11	2	7	9	7	1	8	4	8
Non-ferrous metals	74–83	19	0	0	2	2	–4	1	0	1
Machinery and equipment	84–85	–39	13	23	18	24	10	16	7	16
Vehicles	86–89	–61	–1	10	1	13	23	14	9	10
Other		–145	–72	–2	–6	–6	–32	–6	109	–20

Source: SSC.

	HS code	1996	1997	1998	1999	2000	2001	2002	2003
Total		-3203	-2896	-2038	-53	617	490	980	59
Agricultural produce	01–15	1047	716	548	634	506	838	1369	753
Food	16–24	554	186	-220	-116	-37	-140	-94	-195
Mineral products	25–27	-7537	-6870	-5157	-3965	-5140	-4976	-4802	-4979
Oil and oil products	2711	-5947	-5185	-3671	-2821	-3258	-2822	-2701	-1038
Gas	2709, 2710	-1649	-1950	-1961	-1336	-2185	-2866	-3174	-2884
Chemicals	28–38	649	263	284	282	644	352	22	171
Wood and pulp&paper	44–49	-456	-439	-373	-218	-219	-381	-477	-548
Textile and apparel	50–63	-113	-42	-40	-5	-22	-33	-18	-87
Ferrous metals and ferroproducts	72–73	3984	4852	4292	3605	5186	4764	5276	6821
Non-ferrous metals	74–83	-13	387	415	393	601	1136	1038	483
Machinery and equipment	84–85	-1001	-1225	-1180	-493	-583	-664	-743	-1152
Vehicles	86–89	65	-321	-270	-106	-66	-197	-332	-890
Other		-732	-1165	-945	-508	-834	-1176	-1701	-4685

Source: SSC.

Commodity Structure in SITC (1996–2002)

	SITC code	1996	1997	1998	1999	2000	2001	2002
Total, US\$ million		14400.3	14217.5	12637.4	11581.6	14572.6	16264.7	17927.4
Food products	(0+1+22+4)	2731.0	1730.8	1342.3	1390.2	1338.9	1777.6	2340.7
Agricultural Materials	(2–22–26–27–28)	130.5	136.3	130.4	180.6	242.0	239.7	316.6
Textiles fibers	(26)	13.3	9.4	7.5	5.8	4.0	3.0	7.6
Ores, minerals & metals	(27+28+68)	1174.4	1477.9	1584.4	1479.5	2058.4	1698.1	1546.1
Energy	(3)	648.2	614.4	521.1	701.6	811.1	1188.5	1647.9
Manufacturing	(5 to 8–67–68)	5321.1	4799.2	4290.9	3474.2	4609.6	5846.5	6394.6
Iron & steel	(67)	4213.6	5099.7	4435.1	3929.2	5161.0	5195.0	5468.0
Other		168.3	349.7	325.7	420.5	347.6	316.2	206.0

Source: WITS; COMTRADE.

Table A17. Commodity Structure of Merchandise Exports in 1996–2002
(Percent)

	SITC code	1996	1997	1998	1999	2000	2001	2002	2002–1996 change	2002–1999 change
Total, US\$ million		14400.3	14217.5	12637.4	11581.6	14572.6	16264.7	17927.4		
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Food products	(0+1+22+4)	19.0	12.2	10.6	12.0	9.2	10.9	13.1	–5.9	1.1
Agricultural Materials	(2–22–26–27–28)	0.9	1.0	1.0	1.6	1.7	1.5	1.8	0.9	0.2
Textiles fibers	(26)	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Ores, minerals & metals	(27+28+68)	8.2	10.4	12.5	12.8	14.1	10.4	8.6	0.5	–4.2
Energy	(3)	4.5	4.3	4.1	6.1	5.6	7.3	9.2	4.7	3.1
Manufacturing	(5 to 8–67–68)	37.0	33.8	34.0	30.0	31.6	35.9	35.7	–1.3	5.7
Iron & steel	(67)	29.3	35.9	35.1	33.9	35.4	31.9	30.5	1.2	–3.4
Other		1.2	2.5	2.6	3.6	2.4	1.9	1.1	0.0	–2.5

Source: WITS; COMTRADE.

Table A18. Growth Rates of Merchandise Exports by Commodity Groups in 1997–2002
(Percent)

	SITC code	1997	1998	1999	2000	2001	2002	<i>Average change rate</i>	<i>min change rate</i>	<i>max change rate</i>
Total		-1.3	-11.1	-8.4	25.8	11.6	10.2	3.7	-11.1	25.8
Food products	(0+1+22+4)	-36.6	-22.4	3.6	-3.7	32.8	31.7	-2.5	-36.6	32.8
Agricultural Materials	(2-22-26-27-28)	4.5	-4.3	38.5	34.0	-0.9	32.1	15.9	-4.3	38.5
Textiles fibers	(26)	-29.1	-20.0	-23.4	-31.1	-23.3	149.7	-8.8	-31.1	149.7
Ores, minerals & metals	(27+28+68)	25.8	7.2	-6.6	39.1	-17.5	-8.9	4.7	-17.5	39.1
Energy	(3)	-5.2	-15.2	34.6	15.6	46.5	38.7	16.8	-15.2	46.5
Manufacturing	(5 to 8-67-68)	-9.8	-10.6	-19.0	32.7	26.8	9.4	3.1	-19.0	32.7
Iron & steel	(67)	21.0	-13.0	-11.4	31.4	0.7	5.3	4.4	-13.0	31.4
Other		107.8	-6.8	29.1	-17.4	-9.0	-34.9	3.4	-34.9	107.8

Source: WITS; COMTRADE.

	SITC code	1997	1998	1999	2000	2001	2002	1996–2002	1999–2002
Total, % change		-1.3	-11.1	-8.4	25.8	11.6	10.2	24.5	41.9
Food products	(0+1+22+4)	-6.9	-2.7	0.4	-0.4	3.0	3.5	-3.6	6.5
Agricultural Materials	(2–22–26–27–28)	0.0	0.0	0.4	0.5	0.0	0.5	1.4	1.4
Textiles fibers	(26)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ores, minerals & metals	(27+28+68)	2.1	0.7	-0.8	5.0	-2.5	-0.9	3.5	0.6
Energy	(3)	-0.2	-0.7	1.4	0.9	2.6	2.8	7.0	8.0
Manufacturing	(5 to 8–67–68)	-3.6	-3.6	-6.5	9.8	8.5	3.4	7.0	15.2
Iron & steel	(67)	6.2	-4.7	-4.0	10.6	0.2	1.7	9.5	8.2
Other		1.3	-0.2	0.8	-0.6	-0.2	-0.7	0.3	-0.8

Source: WITS; COMTRADE.

	SITC code	1997	1998	1999	2000	2001	2002	1996–2002	1999–2002
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Food products	(0+1+22+4)	547.2	24.6	-4.5	-1.7	25.9	33.9	-14.7	15.5
Agricultural Materials	(2–22–26–27–28)	-3.2	0.4	-4.8	2.1	-0.1	4.6	5.7	3.3
Textiles fibers	(26)	2.1	0.1	0.2	-0.1	-0.1	0.3	-0.2	0.0
Ores, minerals & metals	(27+28+68)	-166.1	-6.7	9.9	19.4	-21.3	-9.1	14.3	1.4
Energy	(3)	18.5	5.9	-17.1	3.7	22.3	27.6	28.8	19.1
Manufacturing	(5 to 8–67–68)	285.5	32.2	77.4	38.0	73.1	33.0	28.7	36.3
Iron & steel	(67)	-484.8	42.1	47.9	41.2	2.0	16.4	38.9	19.7
Other		-99.2	1.5	-9.0	-2.4	-1.9	-6.6	1.2	-1.9

Source: WITS; COMTRADE.

	SITC code	1996	1997	1998	1999	2000	2001	2002
Total, US\$ million		17602.9	17124.9	14676.0	11846.1	13956.0	15775.1	16975.9
Food products	(0+1+22+4)	1384.1	866.5	1022.5	879.0	881.3	1097.0	1081.8
Agricultural Materials	(2–22–26–27–28)	388.7	293.6	237.0	163.7	160.0	177.4	152.6
Textiles fibers	(26)	33.0	37.5	48.6	33.0	48.6	62.8	70.8
Ores, minerals & metals	(27+28+68)	549.8	501.0	545.5	515.2	751.9	694.3	582.1
Energy	(3)	8413.0	7812.1	5947.7	5223.3	6007.7	6265.6	6664.5
Manufacturing	(5 to 8–67–68)	6337.9	7052.0	6411.5	4673.0	5428.4	6860.0	7830.2
Iron & steel	(67)	334.7	261.4	243.8	124.2	298.2	365.0	368.2
Other		161.7	300.6	219.4	234.9	379.8	253.0	225.6

Source: WITS; COMTRADE.

	SITC code	1996	1997	1998	1999	2000	2001	2002	2002–1996 change	2002–1999 change
Total, US\$ million		17602.9	17124.9	14676.0	11846.1	13956.0	15775.1	16975.9		
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Food products	(0+1+22+4)	7.9	5.1	7.0	7.4	6.3	7.0	6.4	–1.5	–1.0
Agricultural Materials	(2–22–26–27–28)	2.2	1.7	1.6	1.4	1.1	1.1	0.9	–1.3	–0.5
Textiles fibers	(26)	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.2	0.1
Ores, minerals & metals	(27+28+68)	3.1	2.9	3.7	4.3	5.4	4.4	3.4	0.3	–0.9
Energy	(3)	47.8	45.6	40.5	44.1	43.0	39.7	39.3	–8.5	–4.8
Manufacturing	(5 to 8–67–68)	36.0	41.2	43.7	39.4	38.9	43.5	46.1	10.1	6.7
Iron & steel	(67)	1.9	1.5	1.7	1.0	2.1	2.3	2.2	0.3	1.1
Other		0.9	1.8	1.5	2.0	2.7	1.6	1.3	0.4	–0.7

Source: WITS; COMTRADE.

Table A23. Growth Rates of Merchandise Imports by Commodity Groups in 1997–2002
(Percent)

		1997	1998	1999	2000	2001	2002	<i>average change rate</i>	<i>min change rate</i>	<i>max change rate</i>
Total		-2.7	-14.3	-19.3	17.8	13.0	7.6	-0.6	-19.3	17.8
Food products	(0+1+22+4)	-37.4	18.0	-14.0	0.3	24.5	-1.4	-4.0	-37.4	24.5
Agricultural Materials	(2-22-26-27-28)	-24.5	-19.3	-30.9	-2.3	10.9	-14.0	-14.4	-30.9	10.9
Textiles fibers	(26)	13.6	29.4	-32.1	47.3	29.3	12.7	13.6	-32.1	47.3
Ores, minerals & metals	(27+28+68)	-8.9	8.9	-5.6	46.0	-7.7	-16.2	1.0	-16.2	46.0
Energy	(3)	-7.1	-23.9	-12.2	15.0	4.3	6.4	-3.8	-23.9	15.0
Manufacturing	(5 to 8-67-68)	11.3	-9.1	-27.1	16.2	26.4	14.1	3.6	-27.1	26.4
Iron & steel	(67)	-21.9	-6.7	-49.1	140.1	22.4	0.9	1.6	-49.1	140.1
Other		85.9	-27.0	7.0	61.7	-33.4	-10.8	5.7	-33.4	85.9

Source: WITS; COMTRADE.

Table A24. Contributions to Imports Growth by Commodity Groups in 1997–2002
(Percent Change)

	SITC code	1997	1998	1999	2000	2001	2002	1996– 2002	1999– 2002
Total, % change		-2.7	-14.3	-19.3	17.8	13.0	7.6	-3.6	15.7
Food products	(0+1+22+4)	-2.9	0.9	-1.0	0.0	1.5	-0.1	-1.6	0.5
Agricultural Materials	(2–22–26– 27–28)	-0.5	-0.3	-0.5	0.0	0.1	-0.2	-1.4	-0.6
Textiles fibers	(26)	0.0	0.1	-0.1	0.1	0.1	0.1	0.3	0.2
Ores, minerals & metals	(27+28+68)	-0.3	0.3	-0.2	2.0	-0.4	-0.7	0.6	0.6
Energy	(3)	-3.4	-10.9	-4.9	6.6	1.8	2.5	-8.9	5.8
Manufacturing	(5 to 8– 67–68)	4.1	-3.7	-11.8	6.4	10.3	6.2	9.9	9.8
Iron & steel	(67)	-0.4	-0.1	-0.8	1.5	0.5	0.0	0.6	1.1
Other		0.8	-0.5	0.1	1.2	-0.9	-0.2	0.5	0.2

Source: WITS; COMTRADE.

Table A25. Contributions to Imports Growth by Commodity Groups in 1997–2002
(Share of Percent Change)

	SITC code	1997	1998	1999	2000	2001	2002	1996– 2002	1996– 2002
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Food products	(0+1+22+4)	108.3	-6.4	5.1	0.1	11.9	-1.3	44.7	3.0
Agricultural Materials	(2–22–26– 27–28)	19.9	2.3	2.6	-0.2	1.0	-2.1	40.1	-3.6
Textiles fibers	(26)	-0.9	-0.5	0.6	0.7	0.8	0.7	-7.5	1.1
Ores, minerals & metals	(27+28+68)	10.2	-1.8	1.1	11.2	-3.2	-9.3	-17.6	4.1
Energy	(3)	125.7	76.1	25.6	37.2	14.2	33.2	249.9	37.3
Manufacturing	(5 to 8–67–68)	-149.4	26.2	61.4	35.8	78.7	80.8	-278.9	62.2
Iron & steel	(67)	15.3	0.7	4.2	8.2	3.7	0.3	-17.4	7.3
Other		-29.1	3.3	-0.5	6.9	-7.0	-2.3	-15.4	1.5

Source: WITS; COMTRADE.

Table A26. Commodity Structure of Merchandise Exports in 1996–2002
(Percent)

	SITC code	1996	1997	1998	1999	2000	2001	2002	2002– 1996 change	2002– 1999 change
Total, US\$ million		14400.3	14217.5	12637.4	11581.6	14572.6	16264.7	17927.4		
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Food and live animals	0	14.8	8.8	7.2	9.3	5.6	8.1	10.4	–4.4	1.1
Beverages and tobacco	1	1.3	0.7	0.5	0.7	0.7	0.6	0.6	–0.7	–0.1
Crude materials, inedible, except fuels	2	9.1	11.6	13.1	11.7	12.7	9.1	8.0	–1.1	–3.7
Fuels, lubricants, etc	3	4.3	4.2	4.1	6.1	5.5	7.3	9.2	4.8	3.1
Animal and vegetable oils, fats, wax	4	1.3	0.8	1.0	1.0	1.6	1.4	1.9	0.6	0.9
Chemicals, related products	5	12.8	10.0	9.3	8.4	9.0	8.6	7.7	–5.1	–0.6
Manufactured goods	6	37.3	44.0	43.8	43.1	45.6	44.2	42.3	5.0	–0.8
Machines, transport equipment	7	14.1	13.2	13.6	11.4	12.3	13.9	13.9	–0.3	2.4
Miscellaneous manufactures articles	8	3.7	4.1	4.8	4.7	4.5	5.0	4.9	1.2	0.1
Goods not classified by kind	9	1.2	2.5	2.6	3.6	2.4	1.9	1.1	0.0	–2.5

Source: WITS; COMTRADE.

Table A27. Growth Rates of Merchandise Exports by Commodity Groups in 1997–2002
(Percent)

	SITC code	1997	1998	1999	2000	2001	2002	<i>average change rate</i>	<i>min change rate</i>	<i>max change rate</i>
Total		-1.3	-11.1	-8.4	25.8	11.6	10.2	3.7	-11.1	25.8
Food and live animals	0	-41.4	-26.8	17.0	-24.3	63.0	41.0	-2.2	-41.4	63.0
Beverages and tobacco	1	-51.0	-28.5	16.5	34.8	-12.4	17.9	-9.0	-51.0	34.8
Crude materials, inedible, except fuels	2	25.8	0.3	-18.0	36.2	-20.3	-3.0	1.4	-20.3	36.2
Fuels, lubricants, etc	3	-3.6	-13.8	34.8	15.2	46.9	38.7	17.5	-13.8	46.9
Animal and vegetable oils, fats, wax	4	-33.6	8.8	-14.0	113.5	-6.2	51.9	11.2	-33.6	113.5
Chemicals, related products	5	-22.9	-17.8	-17.2	35.4	6.5	-1.0	-4.7	-22.9	35.4
Manufactured goods	6	16.5	-11.6	-9.7	33.0	8.1	5.6	5.9	-11.6	33.0
Machines, transport equipment	7	-7.6	-8.9	-22.6	35.4	26.0	9.9	3.4	-22.6	35.4
Miscellaneous manufactures articles	8	10.2	3.3	-9.6	20.2	22.0	8.6	8.6	-9.6	22.0
Goods not classified by kind	9	107.8	-6.8	29.1	-17.4	-9.0	-34.9	3.4	-34.9	107.8

Source: WITS; COMTRADE.

	SITC code	1997	1998	1999	2000	2001	2002	1996– 2002	1999– 2002
Total, % change		-1.3	-11.1	-8.4	25.8	11.6	10.2	24.5	41.9
Food and live animals	0	-6.1	-2.4	1.2	-2.3	3.5	3.3	-3.0	5.8
Beverages and tobacco	1	-0.7	-0.2	0.1	0.2	-0.1	0.1	-0.5	0.3
Crude materials, inedible, except fuels	2	2.4	0.0	-2.4	4.2	-2.6	-0.3	1.2	-1.1
Fuels, lubricants, etc	3	-0.2	-0.6	1.4	0.9	2.6	2.8	7.2	8.0
Animal and vegetable oils, fats, wax	4	-0.4	0.1	-0.1	1.1	-0.1	0.7	1.2	1.6
Chemicals, related products	5	-2.9	-1.8	-1.6	3.0	0.6	-0.1	-2.9	1.8
Manufactured goods	6	6.2	-5.1	-4.2	14.2	3.7	2.5	17.1	16.3
Machines, transport equipment	7	-1.1	-1.2	-3.1	4.1	3.2	1.4	3.2	5.5
Miscellaneous manufactures articles	8	0.4	0.1	-0.5	1.0	1.0	0.4	2.5	1.9
Goods not classified by kind	9	1.3	-0.2	0.8	-0.6	-0.2	-0.7	0.3	-0.8

Source: WITS; COMTRADE.

	SITC code	1997	1998	1999	2000	2001	2002	1996– 2002	1999– 2002
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Food and live animals	0	483.6	21.2	-14.8	-8.7	30.2	32.6	-12.2	14.0
Beverages and tobacco	1	53.1	1.7	-1.0	0.9	-0.8	1.0	-2.2	0.8
Crude materials, inedible, except fuels	2	-185.2	-0.3	28.3	16.5	-22.2	-2.6	5.1	-2.6
Fuels, lubricants, etc	3	12.4	5.3	-17.1	3.6	22.4	27.6	29.4	19.1
Animal and vegetable oils, fats, wax	4	33.2	-0.7	1.7	4.3	-0.9	7.0	5.0	3.8
Chemicals, related products	5	231.5	16.0	19.1	11.5	5.1	-0.8	-11.9	4.4
Manufactured goods	6	-484.9	45.9	50.6	55.1	31.9	24.2	69.9	38.8
Machines, transport equipment	7	85.2	10.6	36.7	15.7	27.6	13.5	12.9	13.2
Miscellaneous manufactures articles	8	-29.8	-1.2	5.5	3.7	8.6	4.2	10.0	4.6
Goods not classified by kind	9	-99.2	1.5	-9.0	-2.4	-1.9	-6.6	1.2	-1.9

Source: WITS; COMTRADE.

Table A30. Commodity Structure of Merchandise Imports in 1996–2002
(Percent)

	SITC code	1996	1997	1998	1999	2000	2001	2002	2002– 1996 change	2002– 1999 change
Total, US\$ million		17602.9	17124.9	14676.0	11846.1	13956.0	15775.1	16975.9		
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Food and live animals	0	6.1	3.3	4.3	5.2	4.6	5.2	4.4	–1.8	–0.8
Beverages and tobacco	1	1.4	1.4	2.0	1.6	1.3	1.2	1.4	0.0	–0.2
Crude materials, inedible, except fuels	2	4.7	4.1	4.8	5.1	5.5	4.6	3.7	–1.0	–1.4
Fuels, lubricants, etc	3	47.8	45.6	40.5	44.0	43.0	39.6	39.2	–8.6	–4.8
Animal and vegetable oils, fats, wax	4	0.2	0.2	0.4	0.5	0.3	0.4	0.5	0.3	0.0
Chemicals, related products	5	6.7	8.4	8.3	8.6	8.8	9.4	10.6	3.8	2.0
Manufactured goods	6	11.4	10.7	12.1	11.3	12.8	14.0	13.8	2.4	2.5
Machines, transport equipment	7	17.0	20.3	21.8	17.6	17.5	19.8	20.8	3.7	3.2
Miscellaneous manufactures articles	8	3.8	4.3	4.3	4.2	3.6	4.1	4.3	0.5	0.1
Goods not classified by kind	9	0.9	1.8	1.5	2.0	2.7	1.6	1.3	0.4	–0.7

Source: WITS; COMTRADE.

Table A31. Growth Rates of Merchandise Imports by Commodity Groups in 1997–2002
(Percent)

	SITC code	1997	1998	1999	2000	2001	2002	<i>average change rate</i>	<i>min change rate</i>	<i>max change rate</i>
Total		-2.7	-14.3	-19.3	17.8	13.0	7.6	-0.6	-19.3	17.8
Food and live animals	0	-48.1	12.7	-3.1	4.6	26.7	-8.4	-6.0	-48.1	26.7
Beverages and tobacco	1	0.4	19.9	-36.7	-1.9	7.7	19.3	-0.7	-36.7	19.9
Crude materials, inedible, except fuels	2	-14.7	-0.2	-13.7	26.2	-5.1	-12.8	-4.3	-14.7	26.2
Fuels, lubricants, etc	3	-7.1	-23.9	-12.2	15.0	4.3	6.4	-3.8	-23.9	15.0
Animal and vegetable oils, fats, wax	4	3.9	75.7	-2.4	-26.4	57.7	28.3	17.7	-26.4	75.7
Chemicals, related products	5	21.4	-14.9	-16.8	20.1	21.1	21.1	7.2	-16.8	21.4
Manufactured goods	6	-8.7	-3.1	-24.7	33.5	24.2	5.9	2.7	-24.7	33.5
Machines, transport equipment	7	15.9	-7.8	-35.0	17.4	28.0	12.6	2.7	-35.0	28.0
Miscellaneous manufactures articles	8	9.5	-14.1	-20.5	-0.6	29.0	14.6	1.6	-20.5	29.0
Goods not classified by kind	9	85.9	-27.0	7.1	61.7	-33.4	-10.9	5.7	-33.4	85.9

Source: WITS; COMTRADE.

**Table A32. Contributions to Imports Growth by Commodity Groups in 1997–2002
(Percent Change)**

	SITC code	1997	1998	1999	2000	2001	2002	1996– 2002	1999– 2002
Total, % change		-2.7	-14.3	-19.3	17.8	13.0	7.6	-3.6	-0.9
Food and live animals	0	-3.0	0.4	-0.1	0.2	1.2	-0.4	-1.7	1.3
Beverages and tobacco	1	0.0	0.3	-0.7	0.0	0.1	0.2	-0.1	-0.1
Crude materials, inedible, except fuels	2	-0.7	0.0	-0.7	1.3	-0.3	-0.6	-0.9	-0.2
Fuels, lubricants, etc	3	-3.4	-10.9	-5.0	6.6	1.8	2.5	-8.9	-5.7
Animal and vegetable oils, fats, wax	4	0.0	0.1	0.0	-0.1	0.2	0.1	0.3	0.3
Chemicals, related products	5	1.4	-1.3	-1.4	1.7	1.8	2.0	4.4	2.9
Manufactured goods	6	-1.0	-0.3	-3.0	3.8	3.1	0.8	3.3	4.3
Machines, transport equipment	7	2.7	-1.6	-7.6	3.1	4.9	2.5	3.5	0.7
Miscellaneous manufactures articles	8	0.4	-0.6	-0.9	0.0	1.0	0.6	0.5	0.1
Goods not classified by kind	9	0.8	-0.5	0.1	1.2	-0.9	-0.2	0.5	-0.2

Source: WITS; COMTRADE.

**Table A33. Contributions to Imports Growth by Commodity Groups in 1997–2002
(Share of Percent Change)**

	SITC code	1997	1998	1999	2000	2001	2002	1996– 2002	1999– 2002
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Food and live animals	0	108.7	-2.9	0.7	1.3	9.4	-5.7	46.9	-151.8
Beverages and tobacco	1	-0.2	-2.0	3.8	-0.2	0.8	3.1	3.9	16.7
Crude materials, inedible, except fuels	2	25.4	0.0	3.4	7.5	-2.2	-7.8	25.1	23.6
Fuels, lubricants, etc	3	125.4	76.2	25.7	37.2	14.1	33.3	250.8	657.9
Animal and vegetable oils, fats, wax	4	-0.3	-1.0	0.1	-0.7	1.4	1.6	-8.8	-35.4
Chemicals, related products	5	-53.1	8.8	7.3	9.7	14.2	26.1	-122.4	-330.6
Manufactured goods	6	36.3	2.3	15.4	21.2	23.8	10.9	-92.4	-496.6
Machines, transport equipment	7	-99.9	11.1	39.6	17.2	37.7	33.0	-97.7	-85.6
Miscellaneous manufactures articles	8	-13.3	4.2	4.5	-0.1	7.9	7.8	-13.2	-12.4
Goods not classified by kind	9	-29.0	3.3	-0.5	6.9	-7.0	-2.3	-15.3	27.8

Source: WITS; COMTRADE.

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
00	Live animals	1.5	0.4	0.0	0.1	0.3	0.1	0.2
01	Meat and meat preparations	2.6	2.9	1.9	2.0	2.0	1.3	1.5
02	Dairy products and birds' eggs	2.2	1.3	0.9	1.0	2.1	3.2	1.6
03	Fish, crustaceans, mollusks, preparations thereof	0.6	0.7	0.5	0.5	0.2	0.2	0.2
04	Cereals and cereal preparations	3.1	1.4	2.6	4.6	1.2	3.3	5.9
05	Vegetables and fruit	0.4	0.4	0.4	0.4	0.4	0.4	0.5
06	Sugar, sugar preparations and honey	12.7	6.6	2.8	3.2	3.2	1.9	2.5
07	Coffee, tea, cocoa, spices, manufactures thereof	0.2	0.3	0.3	0.6	1.0	1.5	1.5
08	Feeding stuff for animals, not incl. unmil. cereals	1.0	0.3	0.4	0.5	0.9	1.0	1.2
09	Miscel. edible products and preparations	0.4	0.1	0.1	0.1	0.1	0.3	0.3
11	Beverages	1.6	0.7	0.4	0.2	0.3	0.5	0.5
12	Tobacco and tobacco manufactures	0.5	0.4	0.5	1.3	1.6	0.7	0.8
21	Hides, skins and furskins, raw	3.4	3.5	1.9	2.3	1.9	1.5	2.7
22	Oil seeds and oleaginous fruit	5.1	5.8	6.2	4.5	5.3	3.2	0.5
23	Crude rubber (including synthetic and reclaimed)	0.0	0.0	0.1	0.1	0.3	0.1	0.0
24	Cork and wood	0.4	0.5	1.1	2.0	2.3	2.1	2.3
25	Pulp and waste paper	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	Textile fibres (except wool tops) and their wastes	0.2	0.1	0.2	0.2	0.1	0.1	0.1
27	Crude fertilizers and crude materials (excl. coal)	3.0	3.4	3.6	3.3	3.5	3.6	3.7
28	Metalliferous ores and metal scrap	6.7	8.7	11.0	10.9	10.9	7.5	6.5
29	Crude animal and vegetable materials, n.e.s.	0.4	0.4	0.4	0.3	0.4	0.4	0.4
32	Coal, coke and briquettes	1.7	1.7	1.7	2.2	2.5	2.8	2.3
33	Petroleum, petroleum products and related materials	0.4	0.3	0.4	0.7	0.4	0.7	1.1
34	Gas, natural and manufactured	0.5	0.8	0.5	0.6	0.9	0.5	0.7
35	Electric current	4.3	7.7	7.2	4.5	3.8	2.4	2.2
41	Animal oils and fats	0.2	0.5	0.3	0.1	0.3	0.3	0.2
42	Fixed vegetable oils and fats	3.3	2.0	2.3	2.7	6.6	5.5	5.8
43	Animal-vegetable oils-fats, processed, and waxes	0.6	0.6	0.6	0.5	0.4	0.3	0.1
51	Organic chemicals	1.5	0.9	0.6	0.5	0.6	0.6	0.6

(continued)

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
52	Inorganic chemicals	4.3	3.9	4.1	4.1	3.9	3.5	2.6
53	Dyeing, tanning and coloring materials	1.0	0.8	0.9	1.1	1.3	1.3	0.8
54	Medicinal and pharmaceutical products	0.3	0.4	0.3	0.1	0.2	0.1	0.1
55	Essential oils & perfume mat.; toilet-cleansing mat	0.4	0.2	0.3	0.2	0.3	0.2	0.2
56	Fertilizers, manufactured	11.5	10.3	8.6	9.2	11.7	9.0	10.6
57	Explosives and pyrotechnic products	1.1	2.6	0.8	0.4	1.9	0.7	2.5
58	Artif. Resins, plastic mat., cellulose esters/ethers	0.3	0.2	0.3	0.2	0.2	0.3	0.3
59	Chemical materials and products, n.e.s.	0.7	0.7	0.8	0.8	0.9	0.9	0.7
61	Leather, leather manuf., n.e.s. and dressed furskig	0.9	1.4	1.8	1.8	1.8	1.7	1.7
62	Rubber manufactures, n.e.s.	2.6	2.7	2.2	1.4	1.5	1.1	0.7
63	Cork and wood manufactures (excl. furniture)	0.2	0.1	0.2	0.3	0.4	0.5	0.5
64	Paper, paperboard, artic. of paper, paper-pulp/board	0.4	0.4	0.5	0.6	0.7	0.9	0.8
65	Textile yarn, fabrics, made-upart., related products	0.2	0.3	0.3	0.3	0.3	0.3	0.4
66	Non-metallic mineral manufactures, n.e.s.	0.6	0.5	0.5	0.4	0.4	0.4	0.4
67	Iron and steel	5.0	6.3	6.2	7.1	7.3	6.8	6.3
68	Non-ferrous metals	0.9	0.9	1.3	2.1	2.4	2.1	1.6
69	Manufactures of metal, n.e.s.	0.6	0.5	0.4	0.3	0.5	1.7	2.2
71	Power generating machinery and equipment	0.8	0.7	0.8	0.5	0.7	0.7	1.0
72	Machinery specialized for particular industries	0.6	0.5	0.4	0.5	0.4	0.7	0.4
73	Metalworking machinery	0.9	0.9	0.8	0.9	1.1	1.5	1.6
74	General industrial machinery & equipment, and parts	0.5	0.6	0.5	0.5	0.7	0.8	0.7
75	Office machines & automatic data processing equip.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76	Telecommunications & sound recording apparatus	0.1	0.1	0.1	0.2	0.1	0.1	0.1
77	Electrical machinery, apparatus & appliances n.e.s.	0.3	0.3	0.2	0.2	0.3	0.2	0.3
78	Road vehicles (incl. air cushion vehicles)	0.2	0.1	0.1	0.1	0.1	0.1	0.1

(continued)

Table A34. Export Specialization Indices in 1996–2002, 2-digit SITC level (Continued)

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
79	Other transport equipment	1.1	0.9	1.2	0.9	0.7	0.8	1.0
81	Sanitary, plumbing, heating and lighting fixtures	0.7	0.6	0.6	0.4	0.3	0.3	0.3
82	Furniture and parts thereof	0.2	0.2	0.2	0.2	0.3	0.3	0.3
83	Travel goods, handbags and similar containers	0.0	0.0	0.1	0.1	0.1	0.1	0.1
84	Articles of apparel and clothing accessories	0.6	0.7	0.9	0.9	1.0	1.0	0.9
85	Footwear	0.5	0.4	0.5	0.6	0.6	0.6	0.5
87	Professional, scientific & controlling instruments	0.2	0.2	0.3	0.2	0.2	0.2	0.3
88	Photographic apparatus, optical goods, watches	0.0	0.0	0.0	0.0	0.0	0.0	0.1
89	Miscellaneous manufactured articles, n.e.s.	0.1	0.2	0.1	0.1	0.1	0.2	0.2
93	UN Special Code	0.5	0.9	0.9	1.4	0.9	0.7	0.4
94	Animals, live, zoo animals, dogs, cats etc.	0.1	0.2	0.2	0.2	0.2	0.2	0.1

Source: WITS; COMTRADE.

**Table A35. Export Specialization Indices in 1996–2002, Exports to CIS,
2-digit SITC level**

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
00	Live animals	5.9	5.6	0.5	2.6	4.4	2.1	2.7
01	Meat and meat preparations	5.4	5.2	4.7	6.1	6.7	4.4	4.6
02	Dairy products and birds' eggs	4.9	4.8	1.9	2.6	3.5	4.1	2.8
03	Fish, crustaceans, mollusks, preparations thereof	1.8	1.5	1.0	1.3	0.6	0.5	0.3
04	Cereals and cereal preparations	3.5	1.7	3.0	4.5	1.6	3.3	3.4
05	Vegetables and fruit	1.9	2.2	1.6	1.6	1.7	2.1	2.3
06	Sugar, sugar preparations and honey	5.5	5.5	2.7	3.2	3.5	2.6	2.3
07	Coffee, tea, cocoa, spices, manufactures thereof	1.0	1.4	1.8	3.0	3.8	4.1	3.6
08	Feeding stuff for animals, not incl. unmil. cereals	5.7	3.3	3.1	4.1	5.6	5.1	5.0
09	Miscel. edible products and preparations	2.9	1.2	0.6	1.0	0.5	1.1	1.2
11	Beverages	2.1	1.0	0.8	0.6	0.8	1.1	1.0
12	Tobacco and tobacco manufactures	1.7	1.6	1.6	2.8	4.0	1.9	1.7
21	Hides, skins and furskins, raw	1.1	1.1	0.5	0.9	1.1	1.3	1.8
22	Oil seeds and oleaginous fruit	2.5	3.9	3.8	5.3	4.4	5.3	2.8
23	Crude rubber (including synthetic and reclaimed)	0.0	0.0	0.1	0.0	0.2	0.1	0.0
24	Cork and wood	0.2	0.2	0.4	0.6	0.8	0.7	0.6
25	Pulp and waste paper	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	Textile fibres (except wool tops) and their wastes	0.4	0.2	0.1	0.1	0.1	0.1	0.2
27	Crude fertilizers and crude materials (excl. coal)	1.8	1.8	1.4	1.8	2.3	2.5	2.4
28	Metalliferous ores and metal scrap	2.9	2.6	2.5	3.1	4.2	3.5	3.7
29	Crude animal and vegetable materials, n.e.s.	3.8	4.1	3.4	3.0	3.1	3.1	3.7
32	Coal, coke and briquettes	0.5	0.6	0.6	1.0	0.8	0.9	0.8
33	Petroleum, petroleum products and related materials	0.1	0.1	0.1	0.2	0.1	0.2	0.2
34	Gas, natural and manufactured	0.0	0.1	0.0	0.1	0.1	0.0	0.1
35	Electric current	1.3	1.7	1.8	1.8	2.2	1.9	1.4
41	Animal oils and fats	2.4	2.7	3.4	2.9	5.6	4.2	2.5
42	Fixed vegetable oils and fats	6.4	5.8	6.1	7.0	7.0	6.4	6.0
43	Animal-vegetable oils-fats, processed, and waxes	4.2	3.8	4.2	3.2	3.4	2.0	1.8

(continued)

**Table A35. Export Specialization Indices in 1996–2002, Exports to CIS,
2-digit SITC level (Continued)**

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
51	Organic chemicals	2.3	1.5	1.5	1.2	1.2	1.3	1.3
52	Inorganic chemicals	1.5	1.7	1.7	1.8	2.0	1.9	1.8
53	Dyeing, tanning and coloring materials	3.9	4.0	2.5	2.7	3.8	3.3	3.5
54	Medicinal and pharmaceutical products	2.8	3.3	1.8	1.3	1.9	2.0	1.4
55	Essential oils & perfume mat.; toilet-cleansing mat	3.2	2.1	2.0	1.3	1.2	1.1	1.0
56	Fertilizers, manufactured	1.7	1.6	1.1	1.1	1.6	1.2	1.1
57	Explosives and pyrotechnic products	0.3	0.6	0.4	0.2	0.9	0.3	1.5
58	Artif. resins, plastic mat., cellulose esters/ethers	1.0	0.9	0.9	0.6	0.8	1.0	1.1
59	Chemical materials and products, n.e.s.	2.2	2.4	1.8	2.7	3.1	3.1	2.4
61	Leather, leather manuf., n.e.s. and dressed furskins	4.0	5.3	4.0	5.6	4.8	4.7	3.2
62	Rubber manufactures, n.e.s.	3.4	3.7	2.6	2.6	2.8	2.0	1.6
63	Cork and wood manufactures (excl. furniture)	0.4	0.3	0.3	0.4	0.6	0.7	0.7
64	Paper, paperboard, artic. of paper, paper-pulp/board	0.9	1.0	0.9	1.2	1.4	1.6	1.4
65	Textile yarn, fabrics, made-upart., related products	1.2	1.7	1.0	1.1	1.1	1.2	1.2
66	Non-metallic mineral manufactures, n.e.s.	2.4	2.1	0.5	1.4	1.8	1.8	1.4
67	Iron and steel	2.6	3.0	3.2	3.6	3.9	3.6	3.2
68	Non-ferrous metals	0.2	0.2	0.2	0.5	0.6	0.6	0.5
69	Manufactures of metal, n.e.s.	1.9	1.7	0.9	0.4	0.6	2.6	3.3
71	Power generating machinery and equipment	1.5	1.4	1.2	0.9	1.4	1.3	1.6
72	Machinery specialized for particular industries	2.8	3.0	1.6	1.4	1.5	2.1	1.4
73	Metalworking machinery	3.5	3.3	2.1	2.3	2.4	4.4	3.8
74	General industrial machinery & equipment, and parts	2.1	2.2	1.9	1.7	2.3	2.0	2.3
75	Office machines & automatic data processing equip.	1.0	1.3	1.0	1.0	1.8	2.9	0.5
76	Telecommunications & sound recording apparatus	1.1	0.8	1.4	1.9	2.2	1.7	1.5
77	Electrical machinery, apparatus & appliances n.e.s.	2.6	2.6	1.8	1.4	2.4	1.9	1.9

(continued)

**Table A35. Export Specialization Indices in 1996–2002, Exports to CIS,
2-digit SITC level (Continued)**

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
78	Road vehicles (incl. air cushion vehicles)	1.2	1.4	0.6	0.7	0.9	0.8	0.6
79	Other transport equipment	1.5	4.1	1.6	1.9	1.5	2.3	2.4
81	Sanitary, plumbing, heating and lighting fixtures	3.4	3.6	2.1	2.3	1.9	1.6	1.4
82	Furniture and parts thereof	1.9	2.4	0.7	1.0	1.6	1.5	1.3
83	Travel goods, handbags and similar containers	1.4	1.3	1.3	1.7	1.7	1.5	1.0
84	Articles of apparel and clothing accessories	3.4	3.8	2.9	2.9	3.8	3.7	3.3
85	Footwear	3.2	2.4	1.4	2.0	3.0	2.9	3.2
87	Professional, scientific & controlling instruments	1.4	1.3	0.8	0.7	0.7	0.5	1.0
88	Photographic apparatus, optical goods, watches	1.1	1.0	0.5	0.4	0.6	1.0	1.5
89	Miscellaneous manufactured articles, n.e.s.	0.8	0.9	0.6	0.5	0.7	0.9	1.1
93	UN Special Code	0.1	0.2	0.3	0.3	0.3	0.2	0.1
94	Animals, live, zoo animals, dogs, cats etc.	1.1	2.0	1.7	1.0	2.4	1.6	1.2

Source: WITS; COMTRADE.

Note: Uzbekistan exports data are not included. Besides, data for the following countries were not included for some years:

1996	1997	1998	1999	2000	2001	2002
Armenia,	Belorus,	Armenia,	Georgia,	Kyrgyzstan	Armenia,	Georgia,
Belorus,	Georgia,	Georgia,	Tajikistan		Kyrgyzstan,	Kazakhstan,
Georgia,	Kyrgyzstan,	Tajikistan			Tajikistan,	Tajikistan,
Tajikistan,	Tajikistan				Turkmenistan	Turkmenistan
Turkmenistan						

Table A36. Export Specialization Indices in 1996–2002, Exports to the EU, 2-digit SITC level

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
00	Live animals	1.2	0.3	0.0	0.1	0.2	0.1	0.1
01	Meat and meat preparations	2.2	2.3	1.6	1.6	1.5	1.1	1.3
02	Dairy products and birds' eggs	1.2	0.8	0.5	0.6	1.1	1.9	1.0
03	Fish, crustaceans, mollusks, preparations thereof	1.2	1.2	0.9	0.9	0.4	0.4	0.2
04	Cereals and cereal preparations	3.5	1.6	3.0	4.8	1.1	3.5	6.3
05	Vegetables and fruit	0.4	0.4	0.4	0.3	0.3	0.3	0.4
06	Sugar, sugar preparations and honey	15.0	7.5	3.1	3.5	3.1	2.2	2.7
07	Coffee, tea, cocoa, spices, manufactures thereof	0.2	0.4	0.4	0.8	1.1	1.5	1.6
08	Feeding stuff for animals, not incl. unmil. cereals	1.3	0.4	0.4	0.5	1.0	1.2	1.4
09	Miscel. edible products and preparations	0.3	0.1	0.1	0.1	0.1	0.2	0.2
11	Beverages	0.8	0.4	0.2	0.1	0.2	0.3	0.3
12	Tobacco and tobacco manufactures	0.6	0.5	0.6	1.3	1.4	0.7	0.6
21	Hides, skins and furskins, raw	3.2	3.5	1.8	2.1	1.7	1.5	2.7
22	Oil seeds and oleaginous fruit	21.4	21.5	19.4	14.6	21.5	14.5	2.3
23	Crude rubber (including synthetic and reclaimed)	0.0	0.0	0.2	0.2	0.6	0.1	0.1
24	Cork and wood	0.7	0.8	1.6	3.5	4.0	3.2	3.5
25	Pulp and waste paper	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	Textile fibres (except wool tops) and their wastes	0.4	0.3	0.3	0.3	0.2	0.1	0.3
27	Crude fertilizers and crude materials (excl. coal)	3.3	3.9	4.1	3.7	3.7	4.0	4.0
28	Metalliferous ores and metal scrap	13.5	16.5	23.9	22.7	20.5	14.6	12.6
29	Crude animal and vegetable materials, n.e.s.	0.3	0.3	0.3	0.2	0.3	0.3	0.3
32	Coal, coke and briquettes	13.0	15.4	14.3	15.9	15.1	17.9	17.0
33	Petroleum, petroleum products and related materials	1.1	0.7	1.1	2.0	0.9	1.7	2.5
34	Gas, natural and manufactured	1.2	2.1	1.3	2.0	2.7	2.3	2.6
35	Electric current	2.4	4.9	4.8	3.0	3.1	1.9	1.5
41	Animal oils and fats	0.3	0.7	0.4	0.2	0.3	0.3	0.2
42	Fixed vegetable oils and fats	4.0	2.7	3.4	3.6	7.8	6.5	7.6
43	Animal-vegetable oils-fats, processed, and waxes	0.6	0.6	0.6	0.5	0.4	0.2	0.2

(continued)

**Table A36. Export Specialization Indices in 1996–2002, Exports to the EU,
2-digit SITC level (Continued)**

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
51	Organic chemicals	1.2	0.7	0.5	0.4	0.4	0.5	0.5
52	Inorganic chemicals	4.8	4.3	4.6	4.7	4.0	3.8	3.0
53	Dyeing, tanning and coloring materials	0.7	0.6	0.7	0.8	0.9	0.9	0.6
54	Medicinal and pharmaceutical products	0.2	0.3	0.2	0.1	0.1	0.1	0.0
55	Essential oils & perfume mat.; toilet-cleansing mat	0.2	0.2	0.2	0.1	0.2	0.1	0.1
56	Fertilizers, manufactured	21.4	19.6	17.8	18.7	19.6	15.9	16.3
57	Explosives and pyrotechnic products	1.5	3.9	1.2	0.8	3.9	1.4	5.2
58	Artif. resins, plastic mat., cellulose esters/ethers	0.2	0.2	0.2	0.2	0.2	0.2	0.2
59	Chemical materials and products, n.e.s.	0.5	0.5	0.6	0.6	0.7	0.7	0.5
61	Leather, leather manuf., n.e.s. and dressed furskins	0.9	1.4	1.7	1.6	1.7	1.7	1.6
62	Rubber manufactures, n.e.s.	2.2	2.2	1.9	1.2	1.2	1.0	0.7
63	Cork and wood manufactures (excl. furniture)	0.2	0.1	0.2	0.3	0.4	0.5	0.5
64	Paper, paperboard, artic. of paper, paper-pulp/board	0.3	0.3	0.3	0.5	0.5	0.6	0.6
65	Textile yarn, fabrics, made-upart., related products	0.3	0.3	0.4	0.4	0.4	0.3	0.4
66	Non-metallic mineral manufactures, n.e.s.	0.6	0.5	0.5	0.4	0.4	0.4	0.4
67	Iron and steel	9.5	12.1	12.0	13.2	12.6	12.0	11.5
68	Non-ferrous metals	1.1	1.1	1.6	2.8	2.8	2.5	1.9
69	Manufactures of metal, n.e.s.	0.4	0.4	0.3	0.3	0.4	1.5	1.9
71	Power generating machinery and equipment	0.6	0.6	0.7	0.4	0.6	0.6	0.9
72	Machinery specialized for particular industries	0.4	0.4	0.3	0.3	0.3	0.5	0.3
73	Metalworking machinery	0.8	0.8	0.7	0.8	1.0	1.3	1.4
74	General industrial machinery & equipment, and parts	0.4	0.4	0.4	0.3	0.5	0.6	0.5
75	Office machines & automatic data processing equip.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76	Telecommunications & sound recording apparatus	0.2	0.2	0.1	0.2	0.1	0.1	0.1
77	Electrical machinery, apparatus & appliances n.e.s.	0.4	0.3	0.3	0.3	0.4	0.3	0.4

(continued)

Table A36. Export Specialization Indices in 1996–2002, Exports to the EU, 2-digit SITC level (Continued)

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
78	Road vehicles (incl. air cushion vehicles)	0.1	0.1	0.1	0.1	0.1	0.1	0.1
79	Other transport equipment	1.1	0.9	1.3	0.9	0.6	0.8	1.0
81	Sanitary, plumbing, heating and lighting fixtures	0.5	0.4	0.4	0.2	0.2	0.2	0.3
82	Furniture and parts thereof	0.1	0.2	0.1	0.2	0.2	0.3	0.3
83	Travel goods, handbags and similar containers	0.0	0.0	0.1	0.1	0.1	0.1	0.1
84	Articles of apparel and clothing accessories	0.7	0.8	1.2	1.3	1.4	1.4	1.3
85	Footwear	0.4	0.3	0.4	0.5	0.5	0.5	0.4
87	Professional, scientific & controlling instruments	0.2	0.2	0.2	0.2	0.2	0.2	0.3
88	Photographic apparatus, optical goods, watches	0.1	0.1	0.0	0.0	0.0	0.0	0.1
89	Miscellaneous manufactured articles, n.e.s.	0.1	0.2	0.1	0.1	0.1	0.1	0.2
93	UN Special Code	0.5	1.1	0.9	1.2	0.7	0.6	0.5
94	Animals, live, zoo animals, dogs, cats etc.	0.2	0.3	0.4	0.3	0.2	0.2	0.1

Source: WITS; COMTRADE.

Note: Data for Luxembourg exports are only for years 1999–2002.

Table A37. Export Specialization Indices in 1996–2002, 3-digit SITC level

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
001	Live animals chiefly for food	1.4	0.4	0.0	0.1	0.3	0.1	0.2
011	Meat, edible meat offals, fresh	2.5	2.4	1.8	2.1	2.1	1.4	1.7
012	Meat & edible offals, salted	0.0	0.0	0.0	0.0	0.0	0.0	1.1
014	Meat & edib. offals, prep./pres.	3.2	5.7	2.6	1.8	1.0	0.3	2.9
022	Milk and cream	2.2	1.6	1.2	1.4	2.3	3.4	0.5
023	Butter	6.7	1.2	2.2	2.0	6.3	8.6	7.2
024	Cheese and curd	0.4	0.3	0.2	0.3	0.7	1.7	0.0
025	Eggs and yolks, fresh, dried	3.0	6.3	0.1	0.1	0.1	0.0	2.7
034	Fish, fresh (live or dead)	0.9	0.9	0.8	0.8	0.4	0.2	0.0
035	Fish, dried, salted or in brine	0.1	0.1	0.1	0.0	0.1	0.1	0.1
036	Crustaceans and molluscs, fresh	0.1	0.2	0.1	0.1	0.0	0.1	0.2
037	Fish, crustaceans and molluscs	0.9	1.0	0.6	0.8	0.2	0.3	—
041	Wheat (including spelt) and meslin	3.2	1.1	5.3	11.6	0.5	5.3	0.0
042	Rice	0.0	0.0	0.0	0.0	0.0	0.0	17.2
043	Barley, unmilled	9.9	5.5	7.3	14.9	11.4	28.7	5.6
044	Maize (corn), unmilled	0.7	0.3	2.2	1.2	0.8	1.5	1.1
045	Cereals, unmilled	5.5	1.9	2.6	7.6	1.2	2.1	0.2
046	Meal and flour of wheat	17.6	8.7	3.5	2.4	0.1	0.1	0.9
047	Other cereal meals and flours	17.5	14.8	20.6	9.7	3.2	2.8	23.1
048	Cereal prepar. & preps. of flour	0.5	0.4	0.3	0.5	0.6	0.6	0.4
054	Vegetab., fresh, chilled, frozen/pres.	0.4	0.5	0.4	0.3	0.3	0.3	0.1
056	Vegetab., roots & tubers	0.6	0.6	0.5	0.6	0.4	0.5	1.1
057	Fruit & nuts (not includ. oil nuts)	0.1	0.1	0.1	0.1	0.2	0.1	0.5
058	Fruit, preserved, and fruit prep.	0.9	0.9	0.8	0.9	0.9	1.0	2.3
061	Sugar and honey	14.9	7.2	2.0	1.7	0.7	0.6	0.7
062	Sugar confectionery	3.1	3.4	4.8	6.4	8.7	5.4	0.0
071	Coffee and coffee substitutes	0.0	0.0	0.0	0.0	0.0	0.0	0.0
072	Cocoa	0.0	0.0	0.0	0.0	0.0	0.0	6.2
073	Chocolate & other food preptns.	0.4	0.9	1.2	1.4	3.5	4.5	0.0
074	Tea and mate	0.0	0.1	0.0	0.1	0.0	0.0	0.1
075	Spices	0.3	0.5	0.4	2.9	0.1	0.1	11.7
081	Feed stuff for animals	0.9	0.3	0.4	0.5	0.8	1.0	0.0
091	Margarine and shortening	0.8	0.1	0.2	0.1	0.1	0.1	2.9
098	Edible products	0.3	0.1	0.1	0.1	0.1	0.3	0.0
111	Non alcoholic beverages	0.9	0.2	0.2	0.1	0.1	0.1	2.9
112	Alcoholic beverages	1.6	0.7	0.5	0.2	0.4	0.6	0.0
121	Tobacco, unmanufactured	0.1	0.0	0.1	0.2	0.4	0.2	2.7
122	Tobacco, manufactured	0.7	0.5	0.7	1.7	1.9	0.9	1.1
211	Hides and skins	4.0	4.0	2.1	2.7	2.1	1.7	0.0

(continued)

Table A37. Export Specialization Indices in 1996–2002, 3-digit SITC level (Continued)

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
212	Furskins, raw	0.8	0.6	0.7	0.2	0.1	0.1	5.5
222	Oil seeds and oleaginous fruit	4.4	5.1	5.7	3.8	4.3	2.6	0.1
223	Oil seeds and oleaginous fruit	13.2	13.4	9.0	12.6	17.8	11.3	0.0
232	Natural rubber latex	0.0	0.0	0.0	0.1	0.0	0.0	0.0
233	Synth.rubb.lat.; synth.rubb.	0.0	0.0	0.1	0.1	0.5	0.1	0.1
245	Fuel wood (excluding wood waste)	1.4	0.4	1.3	2.3	1.5	2.4	3.5
246	Pulpwood (including chips)	0.0	0.0	0.0	0.1	0.1	0.0	0.0
247	Other wood in the rough	0.7	1.0	3.0	4.9	3.9	3.2	3.1
248	Wood, simply worked	0.3	0.4	0.7	1.2	1.9	1.9	2.1
251	Pulp and waste paper	0.0	0.0	0.0	0.0	0.0	0.0	0.0
261	Silk	0.1	0.1	0.1	0.0	0.0	0.0	0.0
263	Cotton	0.0	0.0	0.0	0.1	0.0	0.0	0.0
264	Jute & other textile bast fibres	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265	Vegetable textile fibres and waste	5.4	2.5	3.3	3.0	1.7	1.7	3.9
266	Synthetic fibres	0.0	0.0	0.0	0.0	0.0	0.0	0.0
267	Other man-made fibres	0.1	0.0	0.0	0.1	0.1	0.1	0.0
268	Wool and other animal hair	0.5	0.4	0.4	0.2	0.1	0.0	0.1
269	Old clothing and other old textile	0.0	0.0	0.0	0.0	0.0	0.0	0.0
271	Fertilizers, crude	0.7	0.5	0.4	0.4	0.6	0.4	0.3
273	Stone, sand and gravel	3.0	3.0	3.8	1.6	1.8	2.3	2.4
274	Sulphur and unroasted iron pyrites	1.6	1.7	1.9	1.7	1.8	1.4	0.9
277	Natural abrasives, n.e.s	0.3	0.1	0.1	0.0	0.0	0.0	0.0
278	Other crude minerals	3.6	4.5	4.6	5.2	5.3	5.2	5.4
281	Iron ore and concentrates	15.7	16.4	16.8	15.9	17.4	13.2	11.1
282	Waste and scrap metal of iron	4.2	10.5	19.5	22.9	23.0	14.9	11.6
286	Ores and concentrates	21.0	18.9	26.1	15.6	0.0	0.0	0.0
287	Non-ferrous base metal waste	4.4	4.4	5.7	6.0	7.1	5.1	4.3
288	Non-ferrous base metal waste	2.6	6.7	8.0	7.0	4.4	0.3	0.4
291	Crude animal materials, n.e.s.	0.3	0.3	0.2	0.3	0.5	0.5	0.7
292	Crude vegetable materials, n.e.s.	0.4	0.4	0.4	0.3	0.4	0.4	0.3
322	Coal, lignite and peat	1.3	1.4	1.3	1.8	1.5	1.8	1.4
323	Briquettes; coke and semi-coke	5.0	4.2	3.9	5.1	9.3	11.1	8.2
333	Petrol.oils, crude, & c.o.	0.0	0.0	0.0	0.3	0.0	0.0	0.1
334	Petroleum products, refined	1.0	0.6	0.8	1.2	0.8	1.8	2.6
335	Residual petroleum products	3.0	2.3	3.0	2.6	2.3	2.9	2.5
341	Gas, natural and manufactured	0.5	0.8	0.4	0.6	0.8	0.5	0.7
351	Electric current	4.1	7.4	6.9	4.3	3.6	2.3	2.1
411	Animal oils and fats	0.2	0.5	0.3	0.1	0.2	0.3	0.2
423	Fixed vegetable oils, soft, crude	5.4	3.3	3.9	4.6	11.8	9.2	10.3

(continued)

Table A37. Export Specialization Indices in 1996–2002, 3-digit SITC level (Continued)

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
424	Other fixed vegetable oils	0.0	0.0	0.0	0.0	0.0	0.0	0.0
431	Animal & vegetable oils and fats	0.6	0.6	0.6	0.5	0.4	0.2	0.1
511	Hydrocarbons nes,& their halogen.	1.2	2.2	2.0	1.3	1.2	1.7	1.9
512	Alcohols, phenols, phenolalcohols	7.7	1.4	0.6	0.6	0.7	0.7	0.7
513	Carboxylic acids & their anhydrides	1.3	1.7	1.5	1.8	1.9	1.4	1.3
514	Nitrogen-function compounds	0.1	0.0	0.0	0.1	0.0	0.0	0.0
515	Organo-inorganic and heterocyclic	0.2	0.1	0.2	0.1	0.1	0.2	0.2
516	Other organic chemicals	0.2	0.4	0.3	0.2	0.1	0.1	0.1
522	Inorganic chemical elements	6.7	6.4	6.5	6.4	6.4	5.8	4.3
523	Other inorganic chemicals	2.1	1.6	1.8	2.2	1.5	1.4	1.3
524	Radio-active materials	0.0	0.0	0.0	0.0	0.0	0.0	0.0
531	Synth.org.dyestuffs, etc.	0.3	0.3	0.1	0.1	0.1	0.1	0.1
532	Dyeing & tanning extracts	0.0	0.0	0.0	0.0	0.0	0.0	1.2
533	Pigments, paints, varnishes	1.3	1.0	1.2	1.5	1.7	1.6	1.0
541	Medicinals and pharmaceuticals	0.3	0.4	0.3	0.1	0.2	0.1	0.1
551	Essential oils, perfume and flavour	0.2	0.2	0.2	0.2	0.2	0.1	0.1
553	Perfumery, cosmetics and toilet	0.2	0.3	0.3	0.2	0.3	0.2	0.2
554	Soap, cleansing and polishing	0.7	0.2	0.2	0.1	0.2	0.2	0.2
562	Fertilizers, manufactured	11.1	9.9	8.2	8.8	11.2	8.6	10.1
572	Explosives and pyrotechnic products	1.1	2.5	0.7	0.4	1.8	0.7	2.4
582	Condensation, polycondensation	0.1	0.0	0.1	0.1	0.1	0.0	0.0
583	Polymerization	0.3	0.3	0.3	0.2	0.3	0.4	0.4
584	Regenerated cellulose; cellulose	0.0	0.0	0.1	0.2	0.0	0.0	0.0
585	Other artificial resins and plastic	0.0	0.0	0.0	0.0	0.0	0.0	0.0
591	Disinfectants, insecticides, fungicid	0.2	0.2	0.2	0.3	0.1	0.1	0.1
592	Starches, inulin & wheat gluten	2.8	2.4	3.2	3.0	4.2	4.0	2.3
598	Miscellaneous chemical products	0.3	0.4	0.5	0.4	0.4	0.4	0.4
611	Leather	0.9	1.5	1.8	2.0	2.1	1.8	1.8
612	Manufactures of leather	0.8	1.2	1.4	1.2	0.9	1.2	1.1
613	Furskins, tanned/dressed	0.6	0.7	1.3	0.6	1.5	2.4	2.2
621	Materials of rubber	0.4	0.3	0.3	0.3	0.1	0.5	0.4
625	Rubber tyres, tyre cases, etc.	3.8	3.9	3.2	2.1	2.2	1.5	0.9
628	Articles of rubber, n.e.s.	0.8	0.7	0.9	0.4	0.4	0.4	0.4
633	Cork manufactures	0.0	0.0	0.0	0.0	0.0	0.0	0.0
634	Veneers, plywood	0.2	0.1	0.3	0.4	0.6	0.8	0.9
635	Wood manufactures, n.e.s.	0.2	0.1	0.1	0.2	0.2	0.2	0.2
641	Paper and paperboard	0.3	0.4	0.5	0.7	0.8	1.0	0.8
642	Paper and paperboard, cut to size	0.5	0.4	0.3	0.3	0.5	0.5	0.5
651	Textile yarn	0.3	0.6	0.8	0.7	0.7	0.6	0.6

(continued)

Table A37. Export Specialization Indices in 1996–2002, 3-digit SITC level (Continued)

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
652	Cotton fabrics, woven	0.2	0.1	0.2	0.0	0.0	0.0	0.0
653	Fabrics, woven, of man-made fibres	0.1	0.1	0.1	0.0	0.0	0.0	0.2
654	Textil.fabrics, woven	0.3	0.5	0.3	0.4	0.3	0.4	0.4
655	Knitted or crocheted fabrics	0.0	0.0	0.0	0.0	0.0	0.0	0.0
656	Tulle, lace, embroidery, ribbons	0.0	0.0	0.0	0.0	0.0	0.0	0.0
657	Special textile fabrics	0.6	0.6	0.6	0.6	0.7	0.6	0.7
658	Made-up articles	0.3	0.2	0.3	0.5	0.4	0.4	0.5
659	Floor coverings, etc.	0.1	0.1	0.1	0.2	0.3	0.3	0.2
661	Lime, cement, and fabricated	1.2	1.5	1.6	1.2	1.1	0.8	1.1
662	Clay construct. materials	1.0	0.9	1.0	0.7	1.1	0.9	0.7
663	Mineral manufactures, n.e.s	1.0	0.7	0.6	0.3	0.4	0.5	0.4
664	Glass	0.5	0.4	0.4	0.4	0.4	0.5	0.7
665	Glassware	1.0	0.6	0.5	0.7	1.0	0.9	0.7
666	Pottery	0.9	0.7	0.7	0.6	0.8	0.9	0.8
671	Pig iron, spiegeleisen, sponge iron	16.2	21.4	30.0	24.5	22.6	18.3	21.1
672	Ingots and other primary forms	14.7	20.9	22.5	31.3	28.5	27.1	24.9
673	Iron and steel bars, rods, angles	13.4	16.4	15.3	18.2	20.3	20.3	16.2
674	Universals, plates and sheets	4.4	5.7	6.6	6.1	6.0	6.8	6.7
676	Rails and railway track	19.4	18.2	21.6	8.7	10.6	4.9	5.6
677	Iron/steel wire, wheth/not coated	5.3	5.8	3.7	4.0	4.0	3.2	3.1
678	Tubes, pipes and fittings, of iron	10.3	10.0	6.6	6.5	9.3	6.9	4.9
679	Iron & steel castings, forgings	1.2	0.9	1.3	0.7	0.3	0.3	0.3
682	Copper	0.2	0.1	0.3	1.1	1.8	1.9	1.3
683	Nickel	0.0	0.0	0.7	0.1	0.2	0.3	0.1
684	Aluminium	1.2	1.6	2.2	3.5	3.6	2.7	2.0
685	Lead	1.3	0.9	0.7	0.8	1.1	0.5	0.8
686	Zinc	0.0	0.0	0.0	0.1	0.1	0.0	0.0
687	Tin	0.0	0.0	0.0	0.0	0.4	0.0	0.6
689	Miscell. non-ferrous base metals	5.3	3.2	3.0	4.1	5.2	5.6	5.4
691	Structures & parts of struc.	1.0	0.9	0.5	0.6	0.7	1.2	0.9
692	Metal containers for storage	0.6	0.4	0.6	0.4	0.6	0.6	0.7
693	Wire products and fencing grills	1.5	1.1	1.6	1.1	2.2	2.1	1.4
694	Nails, screws, nuts, bolts etc. of iron	0.5	0.5	0.4	0.2	0.3	0.3	0.4
695	Tools for use in hand or in machine	0.3	0.2	0.3	0.3	0.6	6.3	9.5
696	Cutlery	0.1	0.0	0.0	0.0	0.0	0.0	0.1
697	Household equipment of base metal	0.5	0.4	0.3	0.2	0.3	0.4	0.4
699	Manufactures of base metal, n.e.s.	0.4	0.4	0.3	0.3	0.3	0.7	0.8
711	Steam & other vapour	0.9	0.8	0.6	0.5	0.6	1.2	0.4
712	Steam & other vapour power units	2.3	3.3	2.7	3.3	2.3	1.3	0.8

(continued)

Table A37. Export Specialization Indices in 1996–2002, 3-digit SITC level (Continued)

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
713	Internal combustion piston engines	0.4	0.3	0.3	0.3	0.2	0.2	0.2
714	Engines & motors, non-electric	1.3	0.9	1.3	0.7	1.1	1.1	1.3
716	Rotating electric plant and parts	0.7	0.7	0.5	0.5	0.6	0.6	0.4
718	Other power generating machinery	1.1	1.5	1.4	0.5	1.0	2.3	9.3
721	Agricultural machinery and parts	1.3	0.9	0.6	0.8	0.7	0.6	0.6
722	Tractors fitted or not with power	0.7	0.4	0.4	0.7	1.2	0.8	0.8
723	Civil engineering & contractors	0.6	0.6	0.6	0.5	0.4	0.5	0.3
724	Textile & leather machinery	0.1	0.1	0.1	0.1	0.1	0.2	0.0
725	Paper & pulp mill mach.	0.1	0.0	0.0	0.0	0.1	0.4	0.1
726	Printing & bookbinding mach.	0.0	0.0	0.0	0.0	0.1	2.9	0.3
727	Food processing machines	1.0	1.9	1.3	1.6	2.3	1.2	0.9
728	Mach. & equipment specialized	0.7	0.6	0.3	0.4	0.3	0.3	0.4
736	Mach. tools for working metal	0.4	0.4	0.4	0.4	0.4	0.7	0.8
737	Metal working machinery	2.4	2.5	2.1	2.6	3.1	4.1	3.9
741	Heating & cooling equipment	0.3	0.4	0.3	0.3	0.8	0.5	0.6
742	Pumps for liquids, liq. elevators	1.1	1.1	1.0	1.1	1.5	1.0	0.9
743	Pumps & compressors, fans	0.5	0.6	0.5	0.5	0.6	1.1	1.1
744	Mechanical handling equip.	0.8	0.8	0.7	0.5	0.5	0.5	0.5
745	Other non-electrical mach. tools	0.3	0.3	0.2	0.3	0.3	0.2	0.1
749	Non-electric parts and accessories	0.4	0.4	0.5	0.4	0.6	0.9	0.6
751	Office machines	0.1	0.0	0.0	0.0	0.0	0.0	0.0
752	Automatic data processing machines	0.0	0.0	0.0	0.0	0.0	0.0	0.0
759	Parts of and accessories suitable	0.0	0.0	0.0	0.0	0.0	0.0	0.0
761	Television receivers	0.0	0.0	0.0	0.0	0.0	0.0	0.0
762	Radio-broadcast receivers	0.0	0.0	0.0	0.0	0.0	0.0	0.0
763	Gramophones	0.0	0.0	0.0	0.0	0.0	0.0	0.0
764	Telecommunications equipment	0.2	0.2	0.2	0.2	0.1	0.1	0.1
771	Electric power machinery	1.3	1.1	1.0	0.9	0.7	0.7	0.7
772	Elect. app. such as switches, relays	0.3	0.2	0.2	0.2	0.2	0.4	0.4
773	Equipment for distributing electric	0.8	0.8	0.8	0.5	0.5	0.6	0.7
774	Electric apparatus for medical	0.0	0.0	0.0	0.0	0.1	0.0	0.8
775	Household type, elect. & non-elect.	0.4	0.4	0.4	0.3	0.4	0.4	0.4
776	Thermionic, cold & photocathode	0.0	0.0	0.0	0.0	0.0	0.0	0.0
778	Electrical machinery and apparatus	0.4	0.3	0.3	0.3	0.7	0.3	0.3
781	Passenger motor cars	0.0	0.0	0.0	0.0	0.0	0.0	0.0
782	Motor vehicles for transport	0.6	0.4	0.3	0.2	0.3	0.3	0.3
783	Road motor vehicles, n.e.s.	0.6	0.7	0.3	0.3	0.5	0.4	0.2
784	Parts & accessories of 722—	0.2	0.2	0.2	0.2	0.2	0.2	0.1
785	Motorcycles, motor scooters	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(continued)

Table A37. Export Specialization Indices in 1996–2002, 3-digit SITC level (Continued)

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
786	Trailers & other vehicles	0.4	0.3	0.4	0.3	0.3	0.4	0.2
791	Railway vehicles & associated equip.	9.6	6.2	5.2	4.2	4.1	5.4	9.9
792	Aircraft & associated equipment	0.2	0.4	0.5	0.5	0.5	0.4	0.3
793	Ships, boats and floating structures	1.2	0.9	1.9	1.0	0.4	0.7	0.8
812	Sanitary, plumbing, heating	0.7	0.6	0.6	0.4	0.3	0.3	0.3
821	Furniture and parts thereof	0.2	0.2	0.2	0.2	0.3	0.3	0.3
831	Travel goods, handbags, briefcases	0.0	0.0	0.1	0.1	0.1	0.1	0.1
842	Outer garments, men's	0.6	0.8	1.0	1.2	1.2	1.2	1.3
843	Outer garments, women's	1.5	1.7	2.2	2.1	2.0	2.0	1.8
844	Under garments of textile fabrics	0.3	0.4	0.6	0.5	0.7	0.6	0.4
845	Outer garments and other articles	0.1	0.1	0.2	0.2	0.3	0.3	0.3
846	Under garments, knitted	0.2	0.2	0.3	0.4	0.5	0.5	0.5
847	Clothing accessories of textile	0.2	0.1	0.2	0.2	0.2	0.1	0.1
848	Art. of apparel & clothing	0.2	0.2	0.2	0.2	0.3	0.3	0.3
851	Footwear	0.5	0.4	0.4	0.5	0.6	0.6	0.5
871	Optical instruments and apparatus	0.2	0.2	0.1	0.1	0.1	0.1	0.3
872	Medical instruments and appliances	0.2	0.1	0.2	0.1	0.1	0.1	0.1
873	Meters and counters, n.e.s.	0.4	0.2	0.1	0.1	0.1	0.1	0.1
874	Measuring, checking, analysing	0.2	0.2	0.3	0.3	0.3	0.3	0.5
881	Photographic apparatus and equip.	0.0	0.0	0.0	0.0	0.0	0.1	0.2
882	Photographic & cinematographic	0.1	0.1	0.0	0.0	0.0	0.0	0.0
883	Cinematograph film, exposed-	0.1	0.0	0.0	0.0	0.0	0.0	0.0
884	Optical goods, n.e.s.	0.0	0.1	0.1	0.0	0.0	0.0	0.0
885	Watches and clocks	0.0	0.0	0.0	0.0	0.0	0.0	0.0
892	Printed matter	0.5	0.6	0.5	0.4	0.3	0.4	0.3
893	Articles of materials described	0.1	0.1	0.1	0.1	0.1	0.1	0.2
894	Baby carriages, toys, games	0.1	0.1	0.1	0.2	0.2	0.3	0.3
895	Office and stationery supplies	0.1	0.0	0.0	0.0	0.0	0.0	0.0
896	Works of art, collectors pieces	0.0	0.0	0.0	0.0	0.0	0.0	0.0
897	Jewellery, goldsmiths	0.0	0.0	0.0	0.0	0.0	0.0	0.0
898	Musical instruments, parts	0.1	0.3	0.1	0.1	0.0	0.0	0.0
899	Other miscellaneous manufactured	0.1	0.0	0.1	0.0	0.1	0.1	0.1
941	Animals, live, n.e.s.	0.1	0.2	0.2	0.2	0.2	0.2	0.1

Source: WITS; COMTRADE.

**Table A38. Export Specialization Indices in 1996–2002, Exports to CIS,
3-digit SITC level**

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
001	Live animals chiefly for food	18.5	14.6	0.4	2.8	6.4	2.2	3.4
011	Meat, edible meat offals, fresh	14.3	10.0	8.6	17.7	26.3	10.0	14.1
012	Meat & edible offals, salted	0.7	0.2	0.9	0.2	9.4	0.0	—
014	Meat & edib. offals, prep./pres.,	11.3	18.5	8.1	6.8	3.2	0.8	7.8
022	Milk and cream	6.9	8.4	3.6	6.9	4.4	6.5	1.0
023	Butter	19.0	6.5	2.5	3.0	10.7	10.9	8.3
024	Cheese and curd	9.1	7.3	0.8	1.7	4.1	7.7	0.0
025	Eggs and yolks, fresh, dried	10.9	23.0	0.0	0.0	0.0	0.0	2.5
034	Fish, fresh (live or dead)	2.0	1.4	0.9	1.1	0.6	0.3	0.0
035	Fish, dried, salted or in brine	0.3	0.7	0.3	0.1	0.3	0.2	0.4
036	Crustaceans and molluscs, fresh	0.5	0.6	0.4	0.3	0.0	1.2	0.6
037	Fish, crustaceans and molluscs	2.7	3.5	2.2	2.2	0.6	0.8	67.5
041	Wheat (including spelt) and meslin	2.9	0.7	3.3	7.6	0.3	3.3	0.0
042	Rice	0.1	0.0	0.0	0.0	0.0	0.1	—
043	Barley, unmilled	5.1	1.5	4.8	12.4	7.3	9.0	1.2
044	Maize (corn), unmilled	8.2	2.5	13.2	11.0	9.3	26.1	13.0
045	Cereals, unmilled	14.5	7.1	5.5	30.2	3.7	9.2	0.4
046	Meal and flour of wheat	8.9	4.7	1.5	1.0	0.0	0.0	1.5
047	Other cereal meals and flours	34.4	45.4	13.8	20.9	3.2	3.0	54.2
048	Cereal prepar. & preps. of flour	6.0	4.2	1.4	2.4	3.1	2.6	1.9
054	Vegetab., fresh, chilled, frozen/pres.	2.0	5.5	2.0	1.2	1.6	2.6	0.6
056	Vegetab., roots & tubers,	4.1	7.8	1.6	2.5	2.4	2.8	5.6
057	Fruit & nuts (not includ. oil nuts)	0.6	0.5	0.4	0.4	0.7	0.8	3.3
058	Fruit, preserved, and fruit prep.	2.4	2.1	2.2	3.4	3.6	4.0	8.8
061	Sugar and honey	15.0	14.5	2.2	2.0	1.0	1.0	0.7
062	Sugar confectionery	10.1	10.2	6.5	10.2	13.0	8.6	0.1
071	Coffee and coffee substitutes	0.5	0.0	0.1	0.5	0.2	0.7	0.0
072	Cocoa	0.4	0.4	0.4	0.8	0.4	1.1	—
073	Chocolate & other food preptns.	1.0	2.5	2.7	3.4	6.9	8.0	0.0
074	Tea and mate	0.1	0.1	0.0	0.1	0.0	0.1	0.4
075	Spices	3.8	6.7	4.0	20.5	0.8	0.8	—
081	Feed. stuff for animals	16.8	4.3	3.9	5.7	10.7	10.4	0.1
091	Margarine and shortening	6.2	0.9	0.4	0.4	0.1	0.3	8.1
098	Edible products and preparations	3.0	1.1	0.5	0.9	0.6	1.2	0.2
111	Non alcoholic beverages, n.e.s.	5.2	0.7	0.5	0.3	0.3	0.4	14.6
112	Alcoholic beverages	2.1	0.9	0.6	0.5	0.8	1.0	0.0
121	Tobacco, unmanufactured	0.3	0.3	0.1	0.2	0.8	0.5	5.7
122	Tobacco, manufactured	2.1	1.8	4.5	10.7	10.3	2.8	2.9
211	Hides and skins (except furskins)	1.1	1.0	0.4	0.9	1.3	1.5	0.0

(continued)

**Table A38. Export Specialization Indices in 1996–2002, Exports to CIS,
3-digit SITC level (Continued)**

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
212	Furskins, raw	0.3	0.3	0.4	0.1	0.1	0.1	3.0
222	Oil seeds and oleaginous fruit	2.5	5.3	4.9	8.8	5.5	10.6	0.6
223	Oil seeds and oleaginous fruit	12.1	22.4	30.8	28.8	28.9	20.2	0.0
232	Natural rubber latex	0.3	0.0	1.1	3.6	0.0	0.0	0.0
233	Synth. rubb. lat.; synth. rubb.	0.0	0.0	0.0	0.0	0.2	0.0	0.0
245	Fuel wood (excluding wood waste)	2.4	0.6	2.0	2.6	2.9	5.3	5.8
246	Pulpwood (including chips)	0.1	0.0	0.0	0.1	0.2	0.0	0.0
247	Other wood in the rough	0.1	0.1	0.3	0.4	0.4	0.3	0.2
248	Wood, simply worked	0.2	0.2	0.4	0.6	1.1	1.1	1.0
251	Pulp and waste paper	0.0	0.0	0.0	0.0	0.0	0.0	0.0
261	Silk	0.1	0.2	0.1	0.0	0.1	0.1	0.1
263	Cotton	0.0	0.0	0.0	0.0	0.0	0.0	0.0
264	Jute & other textile bast fibres	0.0	2.8	0.0	0.0	0.0	0.0	0.0
265	Vegetable textile fibres and waste	—	13.7	5.8	7.5	5.5	2.6	3.6
266	Synthetic fibres	0.1	0.2	0.0	0.0	0.0	0.0	0.0
267	Other man-made fibres	0.1	0.0	0.0	0.1	0.2	0.1	0.0
268	Wool and other animal hair	0.7	0.5	0.8	0.3	0.3	0.1	0.2
269	Old clothing and other old textile	0.2	0.5	0.3	0.3	0.1	0.1	0.1
271	Fertilizers, crude	0.1	0.1	0.1	0.1	0.1	0.1	0.1
273	Stone, sand and gravel	6.8	9.0	7.9	6.5	7.6	7.2	5.9
274	Sulphur and unroasted iron pyrites	0.5	0.3	0.6	0.4	0.3	0.4	0.1
277	Natural abrasives, n.e.s	—	0.7	0.0	0.1	0.2	0.4	0.0
278	Other crude minerals	3.1	4.0	2.8	4.0	5.2	4.9	6.2
281	Iron ore and concentrates	6.5	5.7	5.5	9.3	8.5	7.9	10.2
282	Waste and scrap metal of iron	1.3	2.2	2.3	2.9	5.1	3.8	3.6
286	Ores and concentrates	—	—	—	29.9	—	—	—
287	Non-ferrous base metal waste	7.4	6.1	6.1	7.6	7.1	4.5	12.2
288	Non-ferrous base metal waste	0.8	1.1	0.9	1.2	3.2	0.6	0.8
291	Crude animal materials, n.e.s.	2.1	3.2	1.5	1.5	2.2	1.9	4.4
292	Crude vegetable materials, n.e.s.	8.7	8.4	6.0	4.8	4.7	5.6	7.1
322	Coal, lignite and peat	0.3	0.4	0.4	0.7	0.4	0.5	0.5
323	Briquettes; coke and semi-coke	2.0	1.8	1.8	1.2	5.7	4.7	2.3
333	Petrol. oils, crude, & c.o.	0.0	0.0	0.0	0.1	0.0	0.0	0.0
334	Petroleum products, refined	0.2	0.1	0.2	0.3	0.2	0.4	0.5
335	Residual petroleum products	3.6	3.5	3.5	2.7	2.2	3.3	2.9
341	Gas, natural and manufactured	0.0	0.0	0.0	0.0	0.1	0.0	0.1
351	Electric current	1.1	1.6	1.8	1.6	2.3	2.0	1.3
411	Animal oils and fats	2.5	3.0	4.4	3.2	10.7	6.6	2.9
423	Fixed vegetable oils, soft, crude	28.4	17.5	19.7	28.9	21.6	22.5	29.3

(continued)

**Table A38. Export Specialization Indices in 1996–2002, Exports to CIS,
3-digit SITC level (Continued)**

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
424	Other fixed vegetable oils,	0.7	2.7	0.6	0.1	2.4	2.4	1.8
431	Animal & vegetable oils and fats	6.8	5.4	6.7	3.8	4.3	2.1	1.9
511	Hydrocarbons nes,& their halogen.	1.2	2.3	2.3	1.4	1.3	2.1	2.4
512	Alcohols, phenols, phenolalcohols	4.2	0.8	0.7	0.5	0.6	0.6	0.5
513	Carboxylic acids & their anhydrides	5.5	10.0	8.3	7.8	6.8	4.9	4.6
514	Nitrogen-function compounds	0.6	0.6	0.5	0.5	0.2	0.3	0.2
515	Organo-inorganic and heterocyclic	0.3	0.1	0.3	0.1	0.2	0.5	0.4
516	Other organic chemicals	1.0	1.1	0.7	0.4	0.3	0.2	0.1
522	Inorganic chemical elements	1.9	1.9	2.3	2.3	3.2	3.2	2.7
523	Other inorganic chemicals	1.5	1.5	1.7	1.8	1.6	1.1	1.2
524	Radio-active materials	0.0	0.0	0.0	0.0	0.0	0.0	0.0
531	Synth. org. dyestuffs, etc.	3.7	4.3	0.8	0.2	0.4	0.3	0.8
532	Dyeing & tanning extracts	0.4	0.2	0.1	0.2	0.0	0.7	17.9
533	Pigments, paints, varnishes	6.2	6.6	3.1	5.3	7.8	6.1	6.0
541	Medicinals and pharmaceuticals	3.2	4.4	1.8	1.2	1.9	2.0	1.3
551	Essential oils, perfume and flavour	3.4	1.1	3.1	3.8	1.5	1.9	1.1
553	Perfumery, cosmetics and toilet	3.6	4.7	2.8	1.6	1.5	1.5	1.1
554	Soap, cleansing and polishing	4.6	1.4	1.1	0.5	0.7	0.6	0.7
562	Fertilizers, manufactured	1.6	1.5	1.0	1.0	1.5	1.1	1.0
572	Explosives and pyrotechnic products	0.3	0.5	0.3	0.1	0.8	0.3	1.4
582	Condensation, polycondensation	0.9	1.0	0.4	0.5	0.4	0.4	0.4
583	Polymerization	0.9	0.7	0.9	0.5	0.7	1.0	1.1
584	Regenerated cellulose; cellulose	0.5	0.8	2.6	1.6	0.5	0.3	0.2
585	Other artificial resins and plastic	0.0	0.0	0.0	0.0	0.0	1.0	0.0
591	Disinfectants, insecticides, fungicid	1.6	3.3	3.1	6.1	1.9	1.7	0.8
592	Starches, inulin & wheat gluten	4.5	4.2	1.6	5.7	7.0	8.5	5.4
598	Miscellaneous chemical products	1.2	1.7	2.1	1.4	1.8	1.8	2.0
611	Leather	5.4	10.9	4.8	11.0	6.8	7.2	4.0
612	Manufactures of leather	11.5	18.6	23.7	23.2	23.8	18.3	10.9
613	Furskins, tanned/dressed	5.1	15.8	4.1	1.9	7.4	21.1	4.9
621	Materials of rubber	1.2	0.8	0.7	1.2	0.5	2.2	1.6
625	Rubber tyres, tyre cases, etc.	6.0	7.5	3.4	3.3	3.7	2.2	1.5
628	Articles of rubber, n.e.s.	1.5	1.6	1.7	1.4	1.8	1.5	1.8
633	Cork manufactures	0.0	0.0	0.1	0.0	0.1	1.3	0.1
634	Veneers, plywood	0.2	0.1	0.2	0.3	0.5	0.6	0.6
635	Wood manufactures, n.e.s.	1.1	0.6	0.4	0.6	0.7	0.6	0.6
641	Paper and paperboard	0.5	0.7	0.6	1.0	1.1	1.4	1.2
642	Paper and paperboard, cut to size	3.5	4.3	1.9	1.9	3.4	3.8	4.3
651	Textile yarn	1.2	2.5	1.5	1.1	1.3	1.7	1.6

(continued)

**Table A38. Export Specialization Indices in 1996–2002, Exports to CIS,
3-digit SITC level (Continued)**

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
652	Cotton fabrics, woven	0.4	0.2	0.4	0.1	0.1	0.0	0.1
653	Fabrics, woven, of man-made fibres	0.6	0.7	0.4	0.4	0.5	0.3	1.6
654	Textil. fabrics, woven	1.0	1.6	0.4	0.3	0.4	0.5	0.4
655	Knitted or crocheted fabrics	2.4	1.0	0.1	0.1	0.1	0.6	0.4
656	Tulle, lace, embroidery, ribbons	0.9	0.5	0.6	0.1	0.2	0.2	0.1
657	Special textile fabrics	2.9	4.4	1.5	2.4	2.9	2.1	1.9
658	Made-up articles, wholly	1.6	1.8	1.1	2.1	2.2	2.2	2.3
659	Floor coverings, etc.	0.4	0.6	0.4	0.8	1.1	1.1	0.9
661	Lime, cement, and fabricated	3.0	5.0	2.2	2.4	2.7	1.9	2.1
662	Clay construct. materials	2.6	2.5	2.2	1.5	2.2	1.5	1.2
663	Mineral manufactures, n.e.s	1.7	1.2	1.5	0.9	0.9	1.4	1.0
664	Glass	2.2	2.3	1.4	1.3	1.5	1.6	2.5
665	Glassware	4.8	2.7	1.3	1.2	2.2	2.5	2.4
666	Pottery	7.6	9.2	5.3	1.7	6.3	5.4	4.5
671	Pig iron, spiegeleisen, sponge iron	2.9	3.5	4.5	4.1	4.6	3.1	4.6
672	Ingots and other primary forms	1.8	2.6	2.9	3.9	4.5	4.4	4.0
673	Iron and steel bars, rods, angles	4.0	5.6	6.4	9.5	12.1	10.5	8.3
674	Universals, plates and sheets	1.9	2.5	3.6	3.0	3.1	3.7	4.0
676	Rails and railway track	4.7	3.8	—	1.4	2.9	1.4	1.7
677	Iron/steel wire, wheth/not coated	6.7	12.2	1.5	4.8	3.8	3.0	2.4
678	Tubes, pipes and fittings, of iron	14.1	22.3	45.2	12.2	12.2	7.9	5.7
679	Iron & steel castings, forgings	1.3	1.1	0.5	1.0	0.9	0.6	0.6
682	Copper	0.1	0.0	0.1	0.3	0.6	0.6	0.7
683	Nickel	0.0	0.0	0.0	0.0	0.0	0.0	0.0
684	Aluminum	0.2	0.3	1.3	0.5	0.6	0.6	0.5
685	Lead	0.8	0.4	0.0	0.3	0.5	0.2	5.8
686	Zinc	0.0	0.0	0.0	0.0	0.0	0.0	0.0
687	Tin	0.0	0.0	0.0	0.0	0.9	0.0	1.3
689	Miscell. non-ferrous base metals	0.7	0.4	—	0.6	1.1	1.2	1.6
691	Structures & parts of struc.	4.5	5.4	0.2	1.0	0.7	1.8	1.0
692	Metal containers for storage	2.6	1.9	1.5	1.2	2.6	1.8	1.8
693	Wire products and fencing grills	2.2	1.9	4.7	0.4	1.5	1.7	1.1
694	Nails, screws, nuts, bolts etc. of iron	3.2	3.0	0.5	1.0	1.4	1.3	1.4
695	Tools for use in hand or in machine	1.5	0.9	1.3	0.1	0.3	6.8	30.9
696	Cutlery	0.5	0.2	0.0	0.0	0.2	0.1	0.4
697	Household equipment of base metal	3.7	3.2	2.4	0.3	1.0	1.2	1.1
699	Manufactures of base metal, n.e.s.	1.1	1.0	5.1	0.4	0.4	1.4	2.0
711	Steam & other vapour	0.6	0.3	0.1	0.2	0.4	0.5	0.4
712	Steam & other vapour power units	3.4	3.8	0.8	2.7	1.7	3.1	0.3

(continued)

**Table A38. Export Specialization Indices in 1996–2002, Exports to CIS,
3-digit SITC level (Continued)**

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
713	Internal combustion piston engines	1.6	1.6	5.3	1.4	1.4	1.4	1.5
714	Engines & motors, non-electric	2.0	2.0	3.3	1.1	2.7	2.0	2.1
716	Rotating electric plant and parts	2.1	2.0	0.4	1.6	2.0	1.6	1.5
718	Other power generating machinery	0.2	0.3	0.6	0.1	0.2	0.4	1.4
721	Agricultural machinery and parts	3.0	4.5	0.3	1.6	1.7	1.0	1.2
722	Tractors fitted or not with power	1.3	1.1	0.9	0.3	0.7	0.4	0.5
723	Civil engineering & contractors	1.9	2.3	1.1	1.1	1.3	0.9	0.9
724	Textile & leather machinery	0.8	0.7	0.2	0.5	0.7	2.2	0.5
725	Paper & pulp mill mach.	0.7	0.4	0.2	0.4	0.9	4.4	1.6
726	Printing & bookbinding mach.	0.7	1.2	1.5	0.8	2.2	—	6.6
727	Food processing machines	4.6	14.6	28.0	3.1	7.6	6.2	6.1
728	Mach. & equipment specialized	10.6	6.9	14.3	3.6	1.6	3.2	3.2
736	Mach. tools for working metal	2.1	1.6	1.7	0.9	1.0	3.3	3.9
737	Metal working machinery	11.7	14.8	1.6	7.2	8.5	26.5	10.6
741	Heating & cooling equipment	1.7	2.9	5.3	1.4	4.5	1.7	2.3
742	Pumps for liquids, liq. elevators	1.7	1.9	3.7	1.3	4.1	2.8	2.5
743	Pumps & compressors, fans	3.0	2.3	1.4	2.5	2.3	4.7	7.6
744	Mechanical handling equip.	4.0	4.3	3.1	2.0	2.2	2.5	1.8
745	Other non-electrical mach. tools	4.4	2.6	0.6	2.1	1.9	1.7	1.6
749	Non-electric parts and accessories	1.3	1.7	12.3	1.4	1.5	1.5	1.9
751	Office machines	0.9	0.5	0.0	0.5	0.4	0.3	0.2
752	Automatic data processing machines	0.4	1.1	4.4	0.5	2.2	4.5	0.3
759	Parts of and accessories suitable	1.9	2.0	0.4	3.7	1.2	1.6	1.6
761	Television receivers	0.2	0.1	0.1	0.0	0.0	0.0	0.0
762	Radio-broadcast receivers	0.2	0.0	0.0	0.1	1.1	0.0	0.8
763	Gramophones, dictating,	0.1	0.0	0.5	1.2	1.5	1.4	0.7
764	Telecommunications equipment	1.3	1.1	35.9	2.3	3.5	2.5	1.8
771	Electric power machinery	16.2	10.4	2.0	6.2	5.4	5.5	4.0
772	Elect. app. such as switches, relays	3.4	2.5	2.8	1.5	2.6	3.7	3.5
773	Equipment for distributing electric	3.2	4.0	2.8	2.5	2.7	2.5	3.4
774	Electric apparatus for medical	0.5	0.5	0.0	0.2	0.6	0.9	17.8
775	Household type, elect. & nonelect.	2.4	1.8	16.0	0.8	1.3	1.2	1.1
776	Thermionic, cold & photocathode	0.8	0.5	0.2	0.3	0.3	0.8	0.9
778	Electrical machinery and apparatus	2.0	2.5	2.7	0.9	4.9	1.3	1.0
781	Passenger motor cars	0.1	0.0	0.0	0.1	0.1	0.1	0.0
782	Motor vehicles for transport	1.9	2.2	0.7	0.3	0.7	0.6	0.5
783	Road motor vehicles, n.e.s.	4.3	6.2	0.1	0.8	0.8	0.7	0.3
784	Parts & accessories of 722—	1.7	2.7	2.9	1.4	1.8	1.5	1.3
785	Motorcycles, motor scooters,	0.5	0.2	0.0	0.1	0.2	0.1	0.1

(continued)

Table A38. Export Specialization Indices in 1996–2002, Exports to CIS, 3-digit SITC level (Continued)

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
786	Trailers & other vehicles	2.3	1.7	1.7	0.6	0.8	0.9	0.5
791	Railway vehicles & associated equip.	4.9	3.0	8.4	3.2	3.6	5.3	8.0
792	Aircraft & associated equipment	1.0	15.1	3.4	5.3	4.3	2.5	1.5
793	Ships, boats and floating structures	0.7	—	2.0	0.8	0.3	1.4	1.5
812	Sanitary, plumbing, heating,	4.4	5.1	0.1	2.3	1.8	1.6	1.4
821	Furniture and parts thereof	1.8	2.6	2.2	0.9	1.5	1.5	1.2
831	Travel goods, handbags, briefcases	1.3	1.2	0.0	1.6	1.7	1.5	0.9
842	Outer garments, men's	2.9	3.3	60.5	3.4	5.5	6.3	5.8
843	Outer garments, women's	6.5	8.9	8.3	5.4	7.6	7.0	6.7
844	Under garments of textile fabrics	6.6	13.9	0.5	3.5	15.4	14.2	7.3
845	Outer garments and other articles	2.4	2.0	5.9	1.3	2.6	2.9	2.6
846	Under garments	2.5	4.1	1.0	1.5	2.4	2.9	2.5
847	Clothing accessories of textile	3.0	2.2	0.2	2.0	2.1	0.9	0.8
848	Art. of apparel & clothing	4.0	4.7	2.9	1.0	1.6	2.0	2.7
851	Footwear	4.0	2.6	19.2	1.9	3.4	3.6	4.5
871	Optical instruments and apparatus	0.9	0.6	0.1	0.3	0.3	0.3	0.8
872	Medical instruments and appliances	2.2	2.9	0.7	1.0	0.9	1.0	0.6
873	Meters and counters, n.e.s.	1.6	1.4	0.1	0.3	0.3	0.2	0.3
874	Measuring, checking, analysing	1.2	1.2	32.9	0.6	0.6	0.4	1.1
881	Photographic apparatus and equip.	0.3	0.1	0.0	0.2	2.1	2.9	7.1
882	Photographic & cinematographic	4.9	2.6	0.8	1.5	1.4	1.9	1.5
883	Cinematograph film, exposed-	5.2	0.5	0.0	0.2	0.2	0.3	0.3
884	Optical goods, n.e.s.	1.0	1.1	11.1	0.2	0.3	0.4	0.5
885	Watches and clocks	0.0	1.1	0.0	0.1	0.0	0.0	0.0
892	Printed matter	0.5	0.5	13.6	0.4	0.4	0.6	0.5
893	Articles of materials described	1.8	1.4	0.1	0.4	0.8	1.3	2.2
894	Baby carriages, toys, games	1.6	3.5	0.8	0.7	1.7	3.3	2.9
895	Office and stationery supplies	3.0	2.2	0.0	1.1	0.6	0.8	1.0
896	Works of art, collectors pieces	0.1	0.0	0.0	0.2	0.1	0.4	0.0
897	Jewellery, goldsmiths	0.0	0.0	0.0	0.0	0.0	0.0	0.0
898	Musical instruments, parts	0.4	1.2	1.9	0.3	0.2	0.1	0.1
899	Other miscellaneous manufactured	0.8	0.7	0.2	0.4	0.8	0.9	0.8
941	Animals, live, n.e.s.	0.9	2.0	0.0	0.9	2.5	1.5	1.1

Source: WITS; COMTRADE.

Note: Uzbekistan exports data are not included. Besides, data for the following countries were not included for some years:

1996	1997	1998	1999	2000	2001	2002
Armenia,	Belorus,	Armenia,	Georgia,	Kyrgyzstan	Armenia,	Georgia,
Belorus,	Georgia,	Georgia,	Tajikistan		Kyrgyzstan,	Kazakhstan,
Georgia,	Kyrgyzstan,	Tajikistan			Tajikistan,	Tajikistan,
Tajikistan,	Tajikistan				Turkmenistan	Turkmenistan
Turkmenistan						

Table A39. Export Specialization Indices in 1996–2002, Exports to the EU, 3-digit SITC level

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
001	Live animals chiefly for food	1.1	0.3	0.0	0.1	0.2	0.1	0.1
011	Meat, edible meat offals, fresh	2.2	2.0	1.5	1.7	1.7	1.3	1.5
012	Meat & edible offals, salted	0.0	0.0	0.0	0.0	0.0	0.0	0.5
014	Meat & edib. offals, prep./pres.	2.6	4.8	2.2	1.3	0.7	0.2	2.1
022	Milk and cream	1.4	1.0	0.7	0.8	1.3	2.2	0.3
023	Butter	4.5	0.8	1.5	1.2	3.5	5.0	4.4
024	Cheese and curd	0.2	0.1	0.1	0.2	0.3	0.9	0.0
025	Eggs and yolks, fresh	2.0	4.5	0.1	0.0	0.0	0.0	1.7
034	Fish, fresh (live or dead)	1.4	1.3	1.2	1.2	0.7	0.4	0.0
035	Fish, dried, salted or in brine	0.1	0.2	0.1	0.1	0.1	0.1	0.1
036	Crustaceans and molluscs, fresh	0.3	0.5	0.4	0.2	0.0	0.4	0.4
037	Fish, crustaceans and molluscs	1.6	1.7	0.9	1.2	0.3	0.6	37.4
041	Wheat (including spelt) and meslin	4.9	1.7	8.0	16.9	0.7	8.8	0.0
042	Rice	0.1	0.0	0.0	0.0	0.0	0.0	37.5
043	Barley, unmilled	7.8	4.6	5.2	9.7	6.5	21.5	5.1
044	Maize (corn), unmilled	1.8	0.8	4.8	2.6	1.7	3.8	2.9
045	Cereals, unmilled	7.6	3.4	4.4	11.5	1.8	3.3	0.3
046	Meal and flour of wheat	15.4	7.4	3.0	1.8	0.1	0.0	0.7
047	Other cereal meals and flours	22.7	18.4	29.5	13.9	4.1	3.5	29.4
048	Cereal prepar. & preps. of flour	0.3	0.2	0.2	0.3	0.3	0.4	0.3
054	Vegetab., fresh, chilled, frozen/pres.	0.3	0.4	0.3	0.2	0.2	0.2	0.1
056	Vegetab., roots & tubers	0.6	0.5	0.4	0.5	0.3	0.4	0.9
057	Fruit & nuts (not includ. oil nuts)	0.1	0.1	0.1	0.1	0.2	0.1	0.5
058	Fruit, preserved, and fruit prep.	1.0	0.9	0.9	0.9	0.8	0.9	2.2
061	Sugar and honey	20.7	9.6	2.4	2.1	0.7	0.8	0.9
062	Sugar confectionery	2.5	2.8	4.0	5.0	6.7	4.6	0.0
071	Coffee and coffee substitutes	0.1	0.0	0.0	0.0	0.0	0.0	0.0
072	Cocoa	0.0	0.0	0.0	0.0	0.0	0.0	8.8
073	Chocolate & other food preptns.	0.2	0.6	0.8	0.8	1.9	2.7	0.0
074	Tea and mate	0.1	0.1	0.0	0.2	0.0	0.0	0.3
075	Spices	0.6	1.1	0.8	7.0	0.3	0.2	22.0
081	Feed. stuff for animals	1.2	0.4	0.4	0.5	0.9	1.2	0.0
091	Margarine and shortening	0.7	0.1	0.2	0.1	0.1	0.1	2.2
098	Edible products and preparations	0.2	0.1	0.1	0.1	0.1	0.2	0.0
111	Non alcoholic beverages, n.e.s.	0.6	0.2	0.2	0.0	0.0	0.1	1.8
112	Alcoholic beverages	0.8	0.4	0.2	0.1	0.2	0.3	0.0
121	Tobacco, unmanufactured	0.2	0.1	0.2	0.4	0.9	0.5	5.0
122	Tobacco, manufactured	0.7	0.5	0.7	1.4	1.4	0.7	0.8

(continued)

Table A39. Export Specialization Indices in 1996–2002, Exports to the EU, 3-digit SITC level (Continued)

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
211	Hides and skins (except furskins)	4.5	4.8	2.4	3.0	2.4	2.2	0.0
212	Furskins, raw	0.5	0.3	0.4	0.1	0.1	0.1	3.4
222	Oil seeds and oleaginous fruit	19.4	19.7	18.3	13.4	19.1	12.7	0.3
223	Oil seeds and oleaginous fruit	36.9	34.0	24.4	22.3	29.9	22.2	0.0
232	Natural rubber latex; nat. rubber	0.1	0.0	0.2	0.7	0.0	0.0	0.0
233	Synth. rubb. lat.; synth. rubb.	0.0	0.0	0.2	0.1	0.6	0.1	0.1
245	Fuel wood (excluding wood waste)	3.8	1.0	3.7	5.5	4.3	6.5	9.2
246	Pulpwood (including chips)	0.2	0.0	0.1	0.2	0.2	0.1	0.1
247	Other wood in the rough	2.0	2.9	6.1	10.7	8.5	7.1	8.7
248	Wood, simply worked	0.5	0.5	0.9	2.1	3.1	2.6	2.9
251	Pulp and waste paper	0.0	0.0	0.0	0.0	0.0	0.0	0.0
261	Silk	0.2	0.3	0.4	0.1	0.2	0.0	0.0
263	Cotton	0.0	0.1	0.0	0.2	0.0	0.0	0.1
264	Jute & other textile bast fibres,	0.0	0.1	0.0	0.0	0.0	0.0	0.0
265	Vegetable textile fibres and waste	6.5	2.7	3.5	1.8	0.8	0.9	2.3
266	Synthetic fibres	0.0	0.0	0.0	0.0	0.0	0.0	0.0
267	Other man-made fibres	0.1	0.0	0.0	0.1	0.1	0.0	0.0
268	Wool and other animal hair	1.4	1.3	1.2	0.4	0.2	0.1	0.2
269	Old clothing and other old textile	0.0	0.0	0.0	0.0	0.0	0.0	0.0
271	Fertilizers, crude	3.9	4.1	3.7	2.3	2.5	2.0	1.6
273	Stone, sand and gravel	2.5	2.4	3.1	1.3	1.3	1.9	2.0
274	Sulphur and unroasted iron pyrites	3.0	3.1	3.1	3.0	3.2	2.0	1.5
277	Natural abrasives, n.e.s	0.4	0.2	0.1	0.0	0.0	0.0	0.0
278	Other crude minerals	3.8	4.9	4.9	5.4	5.6	5.7	5.8
281	Iron ore and concentrates	99.7	100.5	114.6	136.2	141.7	139.0	111.8
282	Waste and scrap metal of iron	3.6	9.4	20.3	23.2	19.9	14.5	11.0
286	Ores and concentrates	—	—	—	—	0.0	0.0	0.0
287	Non-ferrous base metal waste	21.4	19.9	24.7	23.6	28.6	21.7	20.4
288	Non-ferrous base metal waste	2.5	6.3	8.3	6.5	3.6	0.3	0.3
291	Crude animal materials, n.e.s.	0.3	0.4	0.3	0.4	0.6	0.7	0.9
292	Crude vegetable materials, n.e.s.	0.2	0.2	0.3	0.2	0.2	0.3	0.2
322	Coal, lignite and peat	13.0	16.7	15.4	14.8	11.6	13.7	14.1
323	Briquettes; coke and semi-coke	11.6	11.1	10.5	11.1	20.1	26.4	21.5
333	Petrol. oils, crude, & c.o. obtain.	0.0	0.0	0.1	2.2	0.3	0.1	0.4
334	Petroleum products, refined	1.3	0.7	1.1	1.6	1.0	2.2	3.2
335	Residual petroleum products	3.7	3.5	4.4	3.3	2.1	2.8	2.5
341	Gas, natural and manufactured	1.1	2.1	1.2	2.0	2.5	2.2	2.5
351	Electric current	2.4	4.7	4.6	3.0	2.9	1.8	1.5

(continued)

**Table A39. Export Specialization Indices in 1996–2002, Exports to the EU,
3-digit SITC level (Continued)**

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
411	Animal oils and fats	0.3	0.6	0.3	0.1	0.3	0.3	0.2
423	Fixed vegetable oils, soft, crude	4.4	3.0	3.9	4.1	9.0	7.4	8.5
424	Other fixed vegetable oils,	0.0	0.1	0.0	0.0	0.1	0.1	0.1
431	Animal & vegetable oils and fats	0.6	0.6	0.6	0.5	0.4	0.2	0.2
511	Hydrocarbons nes, & their halogen.	1.0	2.4	2.2	1.4	1.3	1.7	2.1
512	Alcohols, phenols, phenolalcohols	8.6	1.4	0.7	0.6	0.8	0.8	0.8
513	Carboxylic acids & their anhydrides	1.3	1.7	1.5	1.7	1.9	1.4	1.4
514	Nitrogen-function compounds	0.1	0.0	0.0	0.0	0.0	0.0	0.0
515	Organo-inorganic and heterocyclic	0.1	0.1	0.1	0.0	0.0	0.1	0.1
516	Other organic chemicals	0.2	0.3	0.3	0.1	0.1	0.1	0.1
522	Inorganic chemical elements	9.1	8.4	8.8	8.5	8.4	7.8	6.0
523	Other inorganic chemicals	2.1	1.6	1.8	2.2	1.3	1.4	1.4
524	Radio-active materials	0.0	0.0	0.0	0.0	0.0	0.0	0.0
531	Synth.org.dyestuffs, etc.	0.2	0.2	0.1	0.1	0.1	0.1	0.1
532	Dyeing & tanning extracts	0.0	0.0	0.0	0.0	0.0	0.0	0.8
533	Pigments, paints, varnishes	0.9	0.7	0.9	1.0	1.2	1.2	0.7
541	Medicinals and pharmaceuticals	0.2	0.3	0.2	0.1	0.1	0.1	0.0
551	Essential oils, perfume and flavour	0.1	0.1	0.1	0.1	0.1	0.1	0.1
553	Perfumery, cosmetics and toilet	0.1	0.1	0.2	0.1	0.2	0.1	0.1
554	Soap, cleansing and polishing	0.5	0.2	0.2	0.1	0.2	0.2	0.2
562	Fertilizers, manufactured	20.7	19.0	17.2	15.6	18.7	15.1	15.7
572	Explosives and pyrotechnic products	1.4	3.8	1.2	0.7	3.7	1.3	5.0
582	Condensation, polycondensation	0.0	0.0	0.1	0.1	0.0	0.0	0.0
583	Polymerization	0.3	0.2	0.3	0.2	0.2	0.3	0.3
584	Regenerated cellulose; cellulose	0.0	0.0	0.1	0.1	0.0	0.0	0.0
585	Other artificial resins and plastic	0.0	0.0	0.0	0.0	0.0	0.0	0.0
591	Disinfectants, insecticides, fungicid	0.2	0.2	0.2	0.2	0.1	0.1	0.0
592	Starches, inulin & wheat gluten	2.0	1.8	2.5	2.3	3.1	3.2	1.8
598	Miscellaneous chemical products	0.2	0.3	0.4	0.3	0.3	0.3	0.3
611	Leather	0.9	1.5	1.7	1.9	1.9	1.7	1.7
612	Manufactures of leather	0.9	1.4	1.6	1.4	1.0	1.3	1.1
613	Furskins, tanned/dressed	0.4	0.4	0.8	0.4	1.0	1.7	1.6
621	Materials of rubber	0.3	0.2	0.2	0.2	0.1	0.4	0.3
625	Rubber tyres, tyre cases, etc.	3.3	3.6	3.1	1.9	2.0	1.4	1.0
628	Articles of rubber, n.e.s.	0.6	0.6	0.7	0.3	0.4	0.4	0.4
633	Cork manufactures	0.0	0.0	0.0	0.0	0.0	0.0	0.0
634	Veneers, plywood	0.3	0.2	0.4	0.5	0.7	1.0	1.2
635	Wood manufactures, n.e.s.	0.1	0.1	0.1	0.1	0.2	0.2	0.2

(continued)

Table A39. Export Specialization Indices in 1996–2002, Exports to the EU, 3-digit SITC level (Continued)

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
641	Paper and paperboard	0.2	0.3	0.3	0.5	0.5	0.7	0.6
642	Paper and paperboard, cut to size	0.4	0.3	0.3	0.2	0.4	0.4	0.4
651	Textile yarn	0.4	0.7	0.8	0.8	0.7	0.7	0.7
652	Cotton fabrics, woven	0.2	0.1	0.2	0.1	0.0	0.0	0.1
653	Fabrics, woven, of man-made fibres	0.1	0.1	0.1	0.0	0.1	0.0	0.2
654	Textil. fabrics, woven	0.2	0.3	0.2	0.3	0.2	0.3	0.3
655	Knitted or crocheted fabrics	0.0	0.0	0.0	0.0	0.0	0.0	0.0
656	Tulle, lace, embroidery, ribbons	0.0	0.0	0.0	0.0	0.0	0.0	0.0
657	Special textile fabrics	0.6	0.6	0.5	0.5	0.6	0.5	0.6
658	Made-up articles, wholly	0.4	0.3	0.4	0.7	0.6	0.7	0.8
659	Floor coverings, etc.	0.1	0.1	0.2	0.2	0.2	0.2	0.2
661	Lime, cement, and fabricated	1.0	1.3	1.4	1.0	0.9	0.7	1.0
662	Clay construct. materials	0.5	0.5	0.5	0.4	0.6	0.5	0.4
663	Mineral manufactures, n.e.s	0.8	0.6	0.5	0.3	0.3	0.4	0.3
664	Glass	0.5	0.4	0.4	0.3	0.3	0.5	0.6
665	Glassware	0.7	0.4	0.3	0.5	0.7	0.7	0.5
666	Pottery	0.7	0.6	0.6	0.5	0.7	0.8	0.7
671	Pig iron, spiegeleisen, sponge iron	42.4	61.8	80.6	75.8	72.7	53.3	71.7
672	Ingots and other primary forms	17.2	26.9	30.1	33.1	31.3	29.3	28.9
673	Iron and steel bars, rods, angles	12.0	14.3	13.4	14.7	15.1	16.5	13.9
674	Universals, plates and sheets	3.9	5.3	6.1	4.9	4.5	5.3	5.3
676	Rails and railway track	17.0	16.3	21.2	7.1	8.8	3.5	4.2
677	Iron/steel wire, wheth/not coated	4.7	5.3	3.4	3.6	3.4	2.7	2.8
678	Tubes, pipes and fittings, of iron	8.0	8.1	5.4	5.1	7.2	5.8	4.2
679	Iron & steel castings, forgings	1.0	0.9	1.2	0.7	0.3	0.3	0.3
682	Copper	0.3	0.2	0.4	1.4	2.1	2.4	1.7
683	Nickel	0.0	0.0	1.0	0.1	0.2	0.3	0.2
684	Aluminium	1.5	1.8	2.6	4.1	4.1	3.1	2.3
685	Lead	2.3	1.3	1.0	1.2	1.5	0.7	1.1
686	Zinc	0.0	0.0	0.0	0.1	0.1	0.0	0.0
687	Tin	0.0	0.0	0.0	0.0	1.5	0.0	1.8
689	Miscell. non-ferrous base metals	6.8	4.9	4.6	6.0	6.3	7.4	7.4
691	Structures & parts of struc.; iron	0.7	0.6	0.4	0.4	0.5	0.9	0.7
692	Metal containers for storage	0.4	0.3	0.5	0.2	0.4	0.5	0.5
693	Wire products and fencing grills	1.3	1.0	1.4	0.9	1.9	1.9	1.3
694	Nails, screws, nuts, bolts etc. of iron	0.6	0.5	0.4	0.2	0.3	0.3	0.4
695	Tools for use in hand or in machine	0.2	0.2	0.2	0.3	0.5	5.8	8.6
696	Cutlery	0.1	0.0	0.0	0.0	0.0	0.0	0.1

(continued)

**Table A39. Export Specialization Indices in 1996–2002, Exports to the EU,
3-digit SITC level (Continued)**

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
697	Household equipment of base metal	0.5	0.4	0.3	0.2	0.3	0.4	0.4
699	Manufactures of base metal, n.e.s.	0.3	0.3	0.3	0.2	0.2	0.6	0.7
711	Steam & other vapour	0.9	0.7	0.7	0.5	0.7	1.4	0.4
712	Steam & other vapour power units	2.4	3.6	3.1	3.5	2.4	1.4	0.9
713	Internal combustion piston engines	0.3	0.3	0.3	0.3	0.2	0.2	0.2
714	Engines & motors, non-electric	0.9	0.7	1.0	0.5	0.7	0.8	1.1
716	Rotating electric plant and parts	0.7	0.7	0.5	0.5	0.6	0.6	0.4
718	Other power generating machinery	0.7	1.1	1.0	0.4	0.7	1.7	7.3
721	Agricultural machinery and parts	0.9	0.6	0.4	0.5	0.5	0.4	0.4
722	Tractors fitted or not with power	0.4	0.3	0.3	0.5	0.7	0.5	0.5
723	Civil engineering & contractors	0.6	0.7	0.7	0.5	0.4	0.5	0.3
724	Textile & leather machinery	0.1	0.1	0.0	0.1	0.1	0.2	0.0
725	Paper & pulp mill mach.,	0.0	0.0	0.0	0.0	0.0	0.2	0.1
726	Printing & bookbinding mach.	0.0	0.0	0.0	0.0	0.1	1.8	0.2
727	Food processing machines and	0.6	1.1	0.8	0.9	1.3	0.7	0.5
728	Mach.& equipment specialized	0.6	0.5	0.3	0.4	0.3	0.3	0.3
736	Mach. tools for working metal	0.4	0.4	0.3	0.3	0.4	0.6	0.7
737	Metal working machinery and	1.9	1.9	1.6	2.0	2.5	3.2	3.1
741	Heating & cooling equipment	0.2	0.3	0.2	0.2	0.7	0.5	0.5
742	Pumps for liquids, liq. elevators	0.7	0.7	0.6	0.7	1.0	0.7	0.7
743	Pumps & compressors, fans	0.4	0.5	0.4	0.4	0.5	0.9	0.9
744	Mechanical handling equip.	0.6	0.6	0.5	0.4	0.4	0.4	0.3
745	Other non-electrical mach. tools	0.2	0.2	0.1	0.2	0.2	0.1	0.1
749	Non-electric parts and accessories	0.3	0.3	0.4	0.3	0.5	0.7	0.5
751	Office machines	0.1	0.0	0.0	0.0	0.0	0.0	0.0
752	Automatic data processing machines	0.0	0.0	0.0	0.0	0.0	0.1	0.0
759	Parts of and accessories suitable	0.0	0.0	0.0	0.0	0.0	0.0	0.0
761	Television receivers	0.1	0.1	0.0	0.0	0.0	0.0	0.0
762	Radio-broadcast receivers	0.0	0.0	0.0	0.0	0.0	0.0	0.0
763	Gramophones, dictating	0.0	0.0	0.0	0.0	0.0	0.0	0.0
764	Telecommunications equipment	0.2	0.2	0.2	0.2	0.1	0.1	0.1
771	Electric power machinery and	1.4	1.1	1.1	1.0	0.8	0.8	0.8
772	Elect. app. such as switches, relays	0.3	0.2	0.2	0.2	0.2	0.4	0.4
773	Equipment for distributing electric	0.9	0.9	0.9	0.6	0.6	0.7	0.9
774	Electric apparatus for medical	0.0	0.0	0.0	0.0	0.1	0.0	0.7
775	Household type, elect. & non-elect.	0.3	0.3	0.3	0.2	0.3	0.3	0.3
776	Thermionic, cold & photocathode	0.0	0.0	0.0	0.0	0.0	0.1	0.1
778	Electrical machinery and apparatus	0.4	0.4	0.3	0.3	0.9	0.4	0.3
781	Passenger motor cars	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(continued)

Table A39. Export Specialization Indices in 1996–2002, Exports to the EU, 3-digit SITC level (Continued)

SITC code	Product Description	1996	1997	1998	1999	2000	2001	2002
782	Motor vehicles for transport	0.6	0.4	0.3	0.2	0.3	0.3	0.3
783	Road motor vehicles, n.e.s.	0.4	0.6	0.2	0.2	0.3	0.3	0.2
784	Parts & accessories of 722—	0.2	0.2	0.2	0.2	0.2	0.1	0.1
785	Motorcycles, motor scooters	0.1	0.0	0.0	0.0	0.0	0.0	0.0
786	Trailers & other vehicles	0.4	0.2	0.3	0.3	0.3	0.4	0.2
791	Railway vehicles	8.9	5.8	5.1	4.3	3.7	4.8	8.0
792	Aircraft & associated equipment	0.2	0.4	0.5	0.5	0.4	0.3	0.2
793	Ships, boats and floating structures	1.7	1.1	2.9	1.5	0.6	1.0	1.1
812	Sanitary, plumbing, heating	0.5	0.4	0.4	0.2	0.2	0.2	0.2
821	Furniture and parts thereof	0.1	0.2	0.1	0.2	0.2	0.3	0.2
831	Travel goods, handbags, briefcases	0.0	0.0	0.1	0.1	0.1	0.1	0.1
842	Outer garments, men's	0.9	1.1	1.5	1.7	1.8	1.9	1.9
843	Outer garments, women's	1.7	2.0	2.8	2.7	2.7	2.8	2.4
844	Under garments of textile fabrics	0.7	0.8	1.2	0.9	1.3	1.2	0.7
845	Outer garments and other articles	0.1	0.1	0.2	0.3	0.4	0.4	0.4
846	Under garments	0.2	0.2	0.4	0.6	0.7	0.7	0.7
847	Clothing accessories of textile	0.2	0.1	0.2	0.2	0.2	0.1	0.1
848	Art. of apparel & clothing	0.3	0.4	0.3	0.3	0.4	0.4	0.4
851	Footwear	0.4	0.3	0.4	0.5	0.5	0.5	0.4
871	Optical instruments and apparatus	0.3	0.3	0.1	0.2	0.2	0.2	0.6
872	Medical instruments and appliances	0.2	0.1	0.1	0.1	0.1	0.1	0.1
873	Meters and counters, n.e.s.	0.3	0.2	0.1	0.1	0.1	0.1	0.1
874	Measuring, checking, analysing	0.2	0.2	0.3	0.3	0.2	0.2	0.4
881	Photographic apparatus and equip.	0.0	0.0	0.0	0.0	0.0	0.1	0.3
882	Photographic & cinematographic	0.1	0.1	0.0	0.0	0.0	0.0	0.0
883	Cinematograph film, exposed-	0.2	0.0	0.0	0.0	0.0	0.0	0.0
884	Optical goods, n.e.s.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
885	Watches and clocks	0.0	0.1	0.0	0.0	0.0	0.0	0.0
892	Printed matter	0.3	0.4	0.4	0.3	0.2	0.3	0.2
893	Articles of materials described	0.1	0.0	0.0	0.0	0.1	0.1	0.2
894	Baby carriages, toys, games	0.1	0.2	0.2	0.2	0.3	0.3	0.4
895	Office and stationery supplies, n.e.	0.1	0.0	0.0	0.0	0.0	0.0	0.0
896	Works of art, collectors pieces	0.0	0.0	0.0	0.0	0.0	0.0	0.0
897	Jewellery, goldsmiths	0.0	0.0	0.0	0.0	0.0	0.0	0.0
898	Musical instruments, parts	0.1	0.3	0.1	0.1	0.0	0.0	0.0
899	Other miscellaneous manufactured	0.1	0.0	0.1	0.0	0.1	0.1	0.1
941	Animals, live, n.e.s.	0.2	0.3	0.4	0.2	0.2	0.2	0.1

Source: WITS; COMTRADE.

Note: Data for Luxembourg exports are only for years 1999–2002.

Table A40. Contribution of commodity groups to the Grubel-Lloyd index in 1996–2002 (Percent)

SITC code		1996	1997	1998	1999	2000	2001	2002
51	Organic chemicals	3.57	3.28	3.52	4.36	4.42	3.72	3.33
52	Inorganic chemicals	3.10	2.39	2.15	2.39	2.14	1.96	1.72
53	Dyeing, tanning and coloring materials	2.23	1.89	2.21	3.09	2.48	2.27	1.93
54	Medicinal and pharmaceutical products	1.95	2.61	2.01	1.25	1.22	1.19	0.98
55	Essential oils & perfume mat.; toilet-cleansing mat	1.04	0.75	0.91	0.79	0.76	0.68	0.73
56	Fertilizers, manufactured	0.11	0.21	0.14	0.21	0.19	0.65	1.07
57	Explosives and pyrotechnic products	0.08	0.13	0.07	0.04	0.07	0.05	0.06
58	Artif. resins, plastic mat., cellulose esters/ethers	2.04	1.60	2.13	1.83	1.95	2.27	2.49
59	Chemical materials and products, n.e.s.	2.76	2.92	3.86	3.95	4.04	3.80	3.06
61	Leather, leather manuf., n.e.s. and dressed furskins	1.12	1.21	1.32	1.52	1.17	1.21	1.07
62	Rubber manufactures, n.e.s.	7.15	4.82	5.92	4.45	3.89	3.10	2.33
63	Cork and wood manufactures (excl. furniture)	0.42	0.30	0.47	0.72	0.79	0.92	1.13
64	Paper, paperboard, artic. of paper, paper-pulp/board	2.57	2.91	3.41	5.36	5.29	5.97	5.71
65	Textile yarn, fabrics, made-up-art., related products	2.77	3.71	4.15	4.35	3.65	3.06	3.58
66	Non-metallic mineral manufactures, n.e.s.	4.25	4.15	4.13	3.73	3.69	3.39	3.57
67	Iron and steel	8.58	7.17	7.82	4.97	8.58	8.54	8.35
69	Manufactures of metal, n.e.s.	4.40	4.06	3.76	3.49	4.14	5.15	5.59
71	Power generating machinery and equipment	6.88	7.00	8.72	6.66	7.12	7.60	9.30
72	Machinery specialized for particular industries	6.85	6.61	4.82	5.96	4.88	6.98	4.10
73	Metalworking machinery	1.95	2.03	2.13	1.26	1.14	0.92	1.54
74	General industrial machinery & equipment, and parts	8.32	9.22	8.61	8.80	11.00	11.66	10.71
75	Office machines & automatic data processing equip.	0.38	0.40	0.38	0.51	0.45	0.62	0.18
76	Telecommunications & sound recording apparatus	1.86	1.95	1.98	3.45	1.97	1.73	1.64
77	Electrical machinery, apparatus & appliances n.e.s.	9.34	9.08	8.39	8.55	11.22	8.25	9.74

(continued)

SITC code		1996	1997	1998	1999	2000	2001	2002
78	Road vehicles (incl. air cushion vehicles)	5.58	5.06	4.08	4.15	4.26	3.76	3.53
79	Other transport equipment	3.10	6.02	4.31	4.51	2.11	2.53	2.12
81	Sanitary, plumbing, heating and lighting fixtures	0.62	0.70	0.75	0.52	0.37	0.35	0.41
82	Furniture and parts thereof	0.69	0.85	0.75	1.00	1.16	1.18	1.16
83	Travel goods, handbags and similar containers	0.02	0.03	0.05	0.09	0.06	0.07	0.05
84	Articles of apparel and clothing accessories	1.44	1.61	2.07	2.77	1.74	1.79	2.13
85	Footwear	1.42	1.01	0.87	1.01	0.60	0.72	0.92
87	Professional, scientific & controlling instruments	1.45	1.53	1.94	2.20	1.62	1.64	2.90
88	Photographic apparatus, optical goods, watches	0.17	0.18	0.11	0.10	0.10	0.12	0.25
89	Miscellaneous manufactured articles, n.e.s.	1.79	2.61	2.06	1.96	1.73	2.16	2.63
	Grubel-Lloyd index, total	48.12	42.36	40.52	40.94	44.85	46.78	43.99

Source: WITS; COMTRADE.

Table A41. Contribution of Commodity Groups to the Grubel-Lloyd Index for Trade with the CIS in 1996–2002
(Percent)

SITC code		1996	1997	1998	1999	2000	2001	2002
51	Organic chemicals	3.57	3.01	2.49	3.13	3.16	2.56	2.66
52	Inorganic chemicals	3.57	2.27	1.72	2.50	2.13	2.43	1.98
53	Dyeing, tanning and coloring materials	1.26	1.10	1.33	1.35	0.95	0.81	0.64
54	Medicinal and pharmaceutical products	1.45	1.66	1.44	1.50	1.05	1.12	1.40
55	Essential oils & perfume mat.; toilet-cleansing mat	0.20	0.17	0.22	0.96	1.39	1.30	1.26
56	Fertilizers, manufactured	0.13	0.26	0.18	0.42	0.38	0.21	0.29
57	Explosives and pyrotechnic products	0.08	0.03	0.03	0.03	0.05	0.03	0.05
58	Artif. resins, plastic mat., cellulose esters/ethers	2.21	1.88	2.19	2.86	3.32	2.71	2.49
59	Chemical materials and products, n.e.s.	1.32	1.22	1.40	1.22	1.73	1.02	1.15
61	Leather, leather manuf., n.e.s. and dressed furskins	0.26	0.29	0.30	0.35	0.30	0.27	0.19
62	Rubber manufactures, n.e.s.	9.13	5.47	6.14	5.97	5.39	5.28	3.90
63	Cork and wood manufactures (excl. furniture)	0.41	0.27	0.26	0.22	0.32	0.25	0.29
64	Paper, paperboard, artic. of paper, paper-pulp/board	3.61	4.47	4.87	8.04	7.10	9.25	9.23
65	Textile yarn, fabrics, made-upart., related products	2.57	2.21	1.89	2.99	3.18	1.84	1.95
66	Non-metallic mineral manufactures, n.e.s.	2.86	3.59	3.23	4.45	4.42	4.00	4.04
67	Iron and steel	11.57	9.37	9.94	7.75	10.40	12.54	15.56
69	Manufactures of metal, n.e.s.	5.05	5.32	4.61	4.67	4.30	4.01	4.36
71	Power generating machinery and equipment	9.84	9.71	12.66	10.56	12.24	10.78	15.14
72	Machinery specialized for particular industries	6.61	9.10	7.22	5.72	4.83	5.80	3.95
73	Metalworking machinery	0.71	0.59	0.65	0.45	0.37	0.39	0.56
74	General industrial machinery & equipment, and parts	9.10	13.80	12.12	8.55	8.31	10.56	5.78
75	Office machines & automatic data processing equip.	0.14	0.06	0.03	0.10	0.10	0.23	0.04
76	Telecommunications & sound recording apparatus	0.63	0.43	0.29	0.35	0.45	0.21	0.27
77	Electrical machinery, apparatus & appliances n.e.s.	8.00	6.24	7.19	7.57	7.63	6.34	7.07

(continued)

SITC code		1996	1997	1998	1999	2000	2001	2002
78	Road vehicles (incl. air cushion vehicles)	8.84	8.45	6.09	6.72	7.93	7.02	5.82
79	Other transport equipment	3.21	4.81	6.18	4.95	2.92	3.88	4.33
81	Sanitary, plumbing, heating and lighting fixtures	0.18	0.11	0.17	0.31	0.18	0.26	0.41
82	Furniture and parts thereof	0.13	0.11	0.14	0.27	0.30	0.32	0.38
83	Travel goods, handbags and similar containers	0.01	0.00	0.01	0.01	0.01	0.00	0.01
84	Articles of apparel and clothing accessories	0.28	0.21	0.33	0.17	0.30	0.33	0.42
85	Footwear	0.13	0.16	0.45	0.61	0.37	0.26	0.22
87	Professional, scientific & controlling instruments	1.57	2.18	2.67	3.50	2.76	2.20	2.07
88	Photographic apparatus, optical goods, watches	0.11	0.13	0.11	0.14	0.14	0.08	0.09
89	Miscellaneous manufactured articles, n.e.s.	1.24	1.32	1.46	1.62	1.60	1.71	1.99
	Grubel-Lloyd index, total	58.02	60.80	65.96	63.43	59.98	66.45	65.71

Source: WITS; COMTRADE.

SITC code		1996	1997	1998	1999	2000	2001	2002
51	Organic chemicals	4.36	3.92	4.90	5.60	6.05	4.95	3.97
52	Inorganic chemicals	3.05	2.76	2.78	2.42	2.43	1.76	1.68
53	Dyeing, tanning and coloring materials	0.91	2.95	3.34	1.80	2.01	1.57	2.25
54	Medicinal and pharmaceutical products	3.14	3.92	2.78	1.10	1.53	1.35	0.78
55	Essential oils & perfume mat.; toilet-cleansing mat	2.56	1.46	1.74	0.68	0.35	0.25	0.45
56	Fertilizers, manufactured	0.09	0.17	0.11	0.04	0.05	1.04	1.64
57	Explosives and pyrotechnic products	0.09	0.25	0.07	0.05	0.10	0.07	0.07
58	Artif. resins, plastic mat., cellulose esters/ethers	2.24	1.45	2.20	1.05	1.08	2.12	2.66

(continued)

Table A42. Contribution of Commodity Groups to the Grubel-Lloyd Index for Trade with the ROW in 1996–2002 (Continued)
(Percent)

SITC code		1996	1997	1998	1999	2000	2001	2002
59	Chemical materials and products, n.e.s.	5.56	5.09	6.86	6.38	6.00	6.31	4.48
61	Leather, leather manuf., n.e.s. and dressed furskins	2.67	2.35	2.55	2.57	2.04	2.05	1.71
62	Rubber manufactures, n.e.s.	2.17	2.12	2.54	2.19	1.67	1.63	1.48
63	Cork and wood manufactures (excl. furniture)	0.53	0.38	0.74	1.18	1.28	1.52	1.75
64	Paper, paperboard, artic. of paper, paper-pulp/board	1.56	1.47	1.98	3.35	4.51	3.90	3.85
65	Textile yarn, fabrics, made-upart., related products	3.69	5.75	6.94	5.69	4.53	4.27	4.86
66	Non-metallic mineral manufactures, n.e.s.	2.27	5.19	5.41	3.29	3.58	3.19	3.50
67	Iron and steel	5.92	5.46	5.95	2.85	8.22	6.11	4.31
69	Manufactures of metal, n.e.s.	4.37	3.08	3.05	2.65	4.56	6.47	6.75
71	Power generating machinery and equipment	3.88	3.11	4.86	3.68	3.83	3.28	5.96
72	Machinery specialized for particular industries	8.73	4.51	2.45	6.44	5.57	8.49	4.47
73	Metalworking machinery	1.92	1.92	2.10	1.68	1.93	1.42	2.27
74	General industrial machinery & equipment, and parts	8.96	5.08	5.22	9.43	10.14	10.69	11.78
75	Office machines & automatic data processing equip.	0.84	0.81	0.81	0.88	0.80	0.98	0.28
76	Telecommunications & sound recording apparatus	4.16	3.83	4.01	6.22	3.48	3.07	2.62
77	Electrical machinery, apparatus & appliances n.e.s.	9.10	10.71	10.28	9.77	12.15	10.45	9.71
78	Road vehicles (incl. air cushion vehicles)	1.84	1.81	2.08	2.19	1.79	1.50	2.30
79	Other transport equipment	3.63	7.97	2.49	4.35	1.72	1.68	0.86
81	Sanitary, plumbing, heating and lighting fixtures	0.27	0.36	0.42	0.53	0.35	0.44	0.44
82	Furniture and parts thereof	1.69	1.77	1.47	1.66	1.05	0.88	1.01
83	Travel goods, handbags and similar containers	0.04	0.06	0.10	0.17	0.12	0.12	0.07
84	Articles of apparel and clothing accessories	3.54	3.32	4.16	5.10	3.16	3.09	3.36

(continued)

Table A42. Contribution of Commodity Groups to the Grubel-Lloyd Index for Trade with the ROW in 1996–2002 (Continued)
(Percent)

SITC code		1996	1997	1998	1999	2000	2001	2002
85	Footwear	1.31	1.44	1.39	1.39	0.87	1.15	1.43
87	Professional, scientific & controlling instruments	1.59	0.97	1.24	1.21	0.90	1.34	3.63
88	Photographic apparatus, optical goods, watches	0.29	0.26	0.11	0.07	0.07	0.16	0.37
89	Miscellaneous manufactured articles, n.e.s.	3.03	4.31	2.87	2.34	2.07	2.70	3.23
Grubel-Lloyd index, total		32.47	29.48	27.07	30.42	33.44	35.52	34.40

Source: WITS; COMTRADE.

Table A43. Complementarity of Ukraine's Export Structure with its Trading Partners' Import Structures in 1996–2002

	1996	1997	1998	1999	2000	2001	2002	2002–1996
RC_EU	25.65	30.28	31.20	31.39	37.76	39.22	33.42	7.77
TC_EU	39.88	38.95	37.95	37.98	39.25	40.48	38.43	–1.45
RC_CIS	64.25	60.25	61.06	63.20	64.59	62.32	60.10	–4.14
TC_CIS	49.67	42.10	42.77	44.56	44.64	43.36	40.31	–9.36

Source: WITS; COMTRADE; authors' calculations.

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The study concludes that the main obstacles to furtherance of Ukraine's trade integration are domestic, and relate to deficiencies in the business environment. Problems in customs administration, standardization, and administrative barriers for new entry require immediate attention. The report highlights specific policy issues that hamper WTO accession, such as trade legislation, protection of intellectual property rights, government support for specific industries, and export restrictions. It also recommends improvements in the structure of Ukraine's import tariffs, investment in a major upgrade of government capacity for investment and export promotion, and reform of both the regime of free economic zones and the mechanism of VAT refund.

The report further draws attention to the importance of the post-WTO accession agenda for Ukraine. To take advantage of WTO membership, the Government should undertake significant institutional reforms to implement WTO regulatory rules in ways that facilitate integration into the world economy and provide benefits to private sector participants.

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