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**The Ukrainian Economy between Russia  
and the Enlarged EU: Consequences for  
Trade and Investment**

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## **Abstract**

*In the past few years, the Ukrainian economy has been growing rapidly, albeit from a very low base resulting from the dramatic decline in the course of the 1990s. However, in 2005, economic growth slowed down markedly, partly reflecting the disappointing political developments that had set in after the 'orange revolution' in late 2004, but also pointing to the extreme vulnerability of the country's current growth path. The demand for investment goods, which had been one of the motors of the recent economic upswing, suffered from the re-privatization campaign launched by the new authorities as well as from the erratic reforms, while exports fell victim to the steep decline in the world prices of steel – Ukraine's major export commodity. By and large, the country's economy remains hostage to the political uncertainty ahead of the parliamentary elections scheduled for 26 March 2006.*

*Ukraine's foreign trade developments over the past few years have been generally characterized by a re-orientation of trade flows towards the non-CIS markets. This has been particularly the case with exports, while the re-orientation of imports has been kept within limits by the country's high dependence on imports of energy from Russia. The latter also explains Ukraine's persistently high trade deficit with Russia (although the trade deficit with the EU has been rising as well). Our findings suggest that in trade with the 'old' EU and the new member states (NMS), Ukraine is specializing in a relatively narrow range of not very sophisticated products: notably metals, chemicals, and mineral fuels, while imports are dominated by machinery and equipment. However, in its trade with Russia (and to some extent with the Baltic states), Ukraine has strong positions in a number of more sophisticated items such as transport vehicles and machinery and equipment – although this is partly explained by the existence of production links dating back to Soviet times. In accordance with the above findings, the extent of intra-industry trade is low in Ukraine's trade with the EU-15 and most NMS, which may be interpreted as indicating a wide gap in productive factor endowments. However, intra-industry trade is more pronounced in trade with Russia and some less advanced NMS, in particular Poland.*

*Despite high expectations after the 'orange revolution', Ukraine's relations with the EU did not advance very much, although the country was finally granted the 'market economy' status (December 2005) making the application of anti-dumping measures against Ukraine's exports to the EU more difficult. However, the EU is still reluctant to acknowledge the country's EU membership prospects – notwithstanding the new accents (positive for Ukraine) brought to the EU's foreign policy by the NMS. At the same time, the fears of economic losses to Ukraine from the EU enlargement proved largely unfounded. The country's exports to most NMS in 2004 were actually higher than the year before, with the exceptions of Hungary and Estonia. Ukraine's agricultural exports to the NMS have performed well and the EU's import quota for steel has been substantially raised (and will be abolished altogether after Ukraine has joined the WTO).*

*The Common Economic Space between Ukraine, Russia, Belarus and Kazakhstan agreed upon in September 2003 has not advanced very much, at least as far as Ukraine's participation is concerned. The main reason for that is that Ukraine and Russia have very different views as to the speed and the final stage of the planned (re-)integration. While Russia would like to form at least a customs union within the CES framework, Ukraine's interest in the project is confined to a free trade area only. The most tangible result of the CES Agreement so far has been the shift to the uniform 'country of destination' principle of indirect taxation of goods traded with Russia, which was expected to bring economic benefits to Ukraine in the form of cheaper energy. However, these expectations have not materialized – largely because of the non-market prices for the Russian energy carriers supplied to Ukraine – and any convergence of Ukraine's domestic energy prices to the Russian (also rising) levels is only possible at the higher stages of integration – which Ukraine is reluctant to enter.*

*Ukraine has achieved considerable progress in its WTO accession negotiations and will most probably accede some time in 2006, although the remaining stumbling blocks – particularly the extensive protection of the country's agricultural sector – still need to be settled. Generally, Ukraine's agriculture has a great production and export potential due to its rich soil ranking among the best in the world, and the country is already highly competitive in a number of products, notably sunflower seeds. At the same time, the potential in some other products (such as sugar, but also to a certain extent grain) is constrained by the existing trade distortions (particularly the agricultural export subsidization by the rich countries) and insufficient investment resulting from the slow progress in the land market development. The small-scale labour-intensive subsistence farming is very important and helps keep unemployment within limits.*

*In comparison to the NMS and some other Central and East European countries such as Bulgaria and Romania, the inflows of FDI to Ukraine have been meagre and in fact even declined in the first half of 2005. Pervasive corruption, bureaucratic hurdles, delay in the implementation of structural reforms, and – more recently – political instability are behind this disappointing development. In addition, the EU share in Ukraine's inward FDI stock is low as well, pointing to the low level of Ukraine's integration with the EU also from the investment point of view. However, a turnaround in FDI activity has already started and will probably become even more pronounced following the country's accession to the WTO. Among the sectors likely to be targeted the most are banks, but also agriculture which – provided the land reform is further pursued – may well follow the path of the food processing industry, which has greatly benefited from the inflows of FDI over the past few years.*

**Keywords:** foreign trade, foreign direct investment, integration

**JEL classification:** F1, F15, F21



# **The Ukrainian economy between Russia and the enlarged EU: consequences for trade and investment**

## **1 Introduction**

Ukraine – the second biggest European country (in terms of territory) numbering nearly 50 million people – remains torn between the West and the East. While, on the one hand, it is trying to integrate its economy into the European structures, on the other hand, it has also strong economic (and, for that matter, cultural) links to Russia. The EU stance on Ukraine, at least when it comes to the country's membership prospects, has been rather sceptical, and the EU enlargement on 1 May 2004 was feared by many in Ukraine to create new barriers and result in economic losses for the country. In the face of these realities, Ukraine opted to join the Common Economic Space (CES) project, which – beside Ukraine – also encompasses Russia, Belarus and Kazakhstan. The EU has been criticizing Ukraine's participation in the CES, but it has been unable to offer the country any feasible alternative, at least until now. On the other hand, there is a considerable divergence of views between Ukraine and Russia as to the particulars of the planned (re-)integration, and the progress in its implementation has so far been limited at best.

The current study is aimed to highlight the various aspects of Ukraine's position between Russia and the (enlarged) European Union in terms of trade and investment. The two issues that have evoked the most controversy among the media and the policy-makers are specifically addressed: the effects of the EU enlargement on Ukraine and the potential of the proposed Common Economic Space with Russia. The conclusions drawn from the analysis identify the potential problems in trade relations, but also the possible investment opportunities and integration prospects.

## **2 Country background**

*by Vasily Astrov*

The current political landscape of Ukraine dates back to the events of late 2004 when presidential elections in the country, which had been governed by President Leonid Kuchma since 1994, culminated in the so-called 'orange revolution'. The outcome of the second round of elections in November 2004, declaring the incumbent prime-minister Viktor Yanukovich the winner, was widely believed to be rigged and led to large-scale popular protests. Under the pressure, Ukraine's Supreme Court cancelled the election result and ordered a repeated vote, which was won by Mr Yanukovich's contender, the right-of-the-centre pro-European opposition leader Viktor Yushchenko. Although there were certain doubts as to the legal aspects of the 'third round' of elections, it probably represented the best possible way out of the political stalemate, avoiding both greater

violence and possibly even a territorial break-up of the country. However, the perceived pro-western and anti-Russian stance of the new president and particularly of the new prime minister Yuliya Tymoshenko – Mr Yushchenko's key ally during the 'orange revolution' – depressed their support in the mostly Russian-speaking and generally wealthier eastern and southern regions of Ukraine.<sup>1</sup> The new authorities needed a lot of political skills to bridge these regional divisions, as well as to balance the country's external policies between Russia and the EU.

The subsequent political developments in the country proved rather controversial. In particular, the new authorities embarked upon repressions against their political opponents, who used to support former President Kuchma, and affiliated business structures, usually under the pretext of criminal charges on economic grounds. Fighting corruption, which had become pervasive under President Kuchma, was one of the key declared priorities of the new government, but the progress on this front has proved rather limited so far. In economic policy (particularly in tax legislation) a number of reforms were initiated, but they were generally erratic and their outcome was controversial at best. In other areas, the policy was increasingly populist and interventionist (as exemplified by the administrative price-setting for gasoline, sugar and meat, leading to their shortages). Integration into the EU and NATO was re-instated into Ukraine's foreign policy doctrine after it had been scrapped just half a year earlier, reflecting the dominating public opinion: the majority of Ukrainians are in favour of joining the EU (but not NATO). However, the EU has been persistently reluctant to acknowledge the country's membership prospects, although the European and American leaders hailed the 'orange revolution' as a significant step towards democracy, and the country's progress in WTO accession negotiations achieved in 2005 has been impressive. Simultaneously, the country's relations with Russia have suffered, and the Ukrainian economy turned out to be another victim. The resulting slowdown of economic growth has been spectacular: from a 12.1% increase of GDP in 2004 to a mere 2.4% in 2005 (see Table 2.1) – despite strongly expanding private consumption, and reflecting the negative developments in investment and foreign trade.

On the demand side of GDP, only private consumption has been booming, backed by a strong rise in disposable money incomes of households and reflecting first of all a strong pick-up in government transfers, particularly pensions. The latter is partly a legacy of the previous Yanukovych government, which doubled the minimum pension on the eve of the 2004 presidential elections, but it is also due to the budget amendments enacted by the *new* government in March 2005. In line with those, the minimum pension was raised by

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<sup>1</sup> The southern and especially eastern regions of Ukraine are home to its heavy industrial base. The latter was largely installed in Soviet times, but has been the motor of recent economic growth in the country and accounts for the bulk of its export revenues. For the pattern of regional disparities and the related political divisions, refer to Figures A1 and A2 of the Appendix.

Table 2.1

## Selected economic indicators, 2000-2006

	1999	2000	2001	2002	2003	2004	2005 <sup>1)</sup>	2006	2007
	forecast								
Population, th pers., end of period	49429.8	48923.2	48457.1	48003.5	47622.4	47280.8	46930.6	46600	46400
Gross domestic product, UAH mn, nom.	130442	170070	204190	225810	267344	344822	400800	463000	535000
annual change in % (real)	-0.2	5.9	9.2	5.2	9.6	12.1	2.4	5	6
GDP/capita (EUR at exchange rate)	595	688	872	931	928	1099	1330	.	.
GDP/capita (EUR at PPP - wiiw)	3420	3770	4240	4620	5120	5910	6210	.	.
Gross industrial production									
annual change in % (real)	4.0	13.2	14.3	7.0	15.8	12.5	3.1	6	7
Gross agricultural production									
annual change in % (real)	-6.9	9.8	10.2	1.2	-11.0	19.9	0.0	.	.
Construction output total									
annual change in % (real)	-11.0	0.4	3.5	-5.8	26.5	17.2	-6.6	.	.
Consumption of households, UAH mn, nom.	71310	92406	112260	124560	146301	185533	.	.	.
annual change in % (real)	-1.9	2.5	9.6	9.5	12.4	15.1	.	.	.
Gross fixed investment, UAH mn, nom.	17552	23629	32573	37178	51011	75714	51552 <sup>I-X</sup>	.	.
annual change in % (real)	0.4	14.4	20.8	8.9	31.3	28.0	3.4 <sup>I-X</sup>	7	10
LFS - employed persons, th, avg. <sup>2)</sup>	20048.2	20175.0	19971.5	20091.2	20163.3	20295.7	20748.2 <sup>I-X</sup>	.	.
annual change in % <sup>3)</sup>	-12.8	0.6	-1.0	0.6	0.8	0.7	1.9 <sup>I-X</sup>	.	.
Reg. employees in industry, th pers., avg. <sup>4)</sup>	3932.0	3445.0	3811.0	3578.1	3416.0	3408.3	3411.7	.	.
annual change in %	-5.1	-12.4	-6.2	-6.1	-4.5	-0.2	0.1	.	.
LFS - unemployed, th pers., average <sup>2)</sup>	2698.8	2655.8	2455.0	2140.7	2008.0	1906.7	1780	.	.
LFS - unemployment rate in %, average <sup>2)</sup>	11.9	11.6	10.9	9.6	9.1	8.6	8	8	8
Reg. unemployment rate in %, end of period	4.3	4.2	3.7	3.8	3.6	3.5	3.1	3	3
Average gross monthly wages, UAH <sup>4)</sup>	177.5	230.1	311.1	376.4	462.3	589.6	806.2	.	.
annual change in % (real, gross)	-5.4	1.1	20.7	20.0	16.7	17.0	20.4	.	.
Consumer prices, % p.a.	22.7	28.2	12.0	0.8	5.2	9.0	13.5	10	9
Producer prices in industry, % p.a.	31.1	20.9	8.6	3.1	7.8	20.4	16.8	8	7
General governm. budget, nat. def., % GDP									
Revenues	25.2	28.9	26.9	27.4	28.2	26.5	33.4	.	.
Expenditures <sup>5)</sup>	26.7	28.3	27.2	26.7	28.4	29.7	35.4	.	.
Deficit (-) / surplus (+), % GDP	-1.5	0.6	-0.3	0.7	-0.2	-3.2	-1.9	-2.5 <sup>6)</sup>	.
Public debt in % of GDP	61.0	45.3	36.5	33.5	29.0	24.7	19.5	.	.
Refinancing rate of NB % p.a., end of period	45.0	27.0	12.5	7.0	7.0	9.0	9.5	.	.
Current account, EUR mn <sup>7)</sup>	1559	1602	1565	3360	2559	5476	2000	500	-500
Current account in % of GDP	5.2	4.7	3.7	7.5	5.8	10.5	3.2	0.6	-0.6
Gross reserves of NB excl. gold, EUR mn <sup>8)</sup>	1042	1453	3353	4088	5386	6838	16168	.	.
Gross external debt, EUR mn <sup>9)</sup>	13456	12759	13785	12247	19055	22529	30557 <sup>I-X</sup>	.	.
FDI inflow, EUR mn <sup>7)</sup>	466	644	884	734	1261	1380	6000	.	.
FDI outflow, EUR mn <sup>7)</sup>	7	1	26	-5	12	3	195 <sup>I-X</sup>	.	.
Exports of goods, BOP, EUR mn <sup>7)</sup>	12400	17008	19074	19770	21013	26906	28500	29900	31400
annual growth rate in %	2.3	37.2	12.1	3.6	6.3	28.0	6	5	5
Imports of goods, BOP, EUR mn <sup>7)</sup>	12170	16165	18853	19018	20555	23895	29500	34000	37400
annual growth rate in %	-15.6	32.8	16.6	0.9	8.1	16.3	23	15	10
Exports of services, BOP, EUR mn <sup>7)</sup>	3637	4111	4459	4958	4615	5060	5300	6500	7000
annual growth rate in %	4.8	13.0	8.5	11.2	-6.9	9.6	5	23	8
Imports of services, BOP, EUR mn <sup>7)</sup>	2155	3433	3995	3743	3934	4149	4400	4500	4700
annual growth rate in %	-4.3	59.3	16.4	-6.3	5.1	5.5	6	2	4
Average exchange rate UAH/USD	4.130	5.440	5.372	5.327	5.333	5.319	5.125	5	5
Average exchange rate UAH/EUR (ECU)	4.393	5.029	4.814	5.030	6.024	6.609	6.389	6	6
Purchasing power parity UAH/USD, wiiw	0.705	0.849	0.912	0.943	1.000	1.127	1.246	.	.
Purchasing power parity UAH/EUR, wiiw	0.768	0.917	0.988	1.014	1.093	1.230	1.371	.	.

Notes: 1) Preliminary. - 2) From 2000 revised data according to census 2001. - 3) In 2000 unrevised data. - 4) Excluding small enterprises. - 5) From 2004 including lending minus repayments. - 6) Central budget deficit passed by Parliament end December 2005. - 7) Converted from USD to EUR at the official cross exchange rate. - 8) Useable. - 9) Up to 2002 long-term debt only.

Source: wiiw Database incorporating national statistics; wiiw forecasts.

another 17% (to UAH 332, or some USD 65 per month) and public wages by 57% in nominal terms. The policy of increased social spending probably reflects the growing awareness within the ruling elite that Ukraine should have more of a welfare state than it used to have before. Indeed, the share of consolidated government expenditures in GDP under former president Kuchma (e.g. 29.7% in 2004) was low not only by European, but even by US standards.

At the same time, the investment climate (for foreign and domestic investors alike) suffered from the new course. In particular, the 2005 budget amendments introduced a five-year moratorium on granting new and enhancing existing tax benefits, while the tax and customs benefits enjoyed by certain industries (including the car, aircraft and space industries) as well as by the 'special economic zones' (SEZs) and the 'territories of priority development' (TPDs) were scrapped with a retroactive effect. The latter move was aimed at closing the 'loopholes' for smuggling, but it has also hurt the investment projects already implemented there.<sup>2</sup> Even more importantly, the new authorities launched a major re-privatization campaign, revising some of the most controversial privatization deals conducted under President Kuchma. On the one hand, the campaign was intended to raise the privatization revenues and thus replenish the state budget, but it is also to be seen as part of the fight of the new power elite against the financial-industrial groups which benefited the most under Kuchma, and thus resembled somewhat the 'Yukos case' in Russia. To make things worse, the government added to investors' worries by a series of contradicting statements regarding both the scope and the particulars of the upcoming re-privatization scheme. It took the government several months to draft a list of enterprises subject to re-privatization and representing most notably the assets of domestic financial-industrial groups, but also some companies with foreign investment, including Russian, Austrian, German, and US participation. However, the list was never officially published (although it was referred to by several high-ranking officials including President Yushchenko), and Prime-Minister Tymoshenko even denied its very existence. In turn, the State Property Fund headed by a Socialist Party nominee,<sup>3</sup> compiled an alternative list of 194 mostly medium-sized enterprises subject to re-privatization which did not overlap with the former list. Several privatization deals were indeed annulled in court, including the country's biggest steel producer *Kryvorizhstal'* and the *Nikopol Ferroalloy Plant*. Subsequently, *Kryvorizhstal'* was re-sold to *Mittal Steel* for UAH 24 billion (some EUR 4 billion, or six times the price paid by the previous owners) in a highly successful tender held in October 2005. This deal alone exceeded by far the entire privatization revenue target set for 2005 (UAH 7 billion) – even though otherwise the privatization process in the country has nearly stalled – and will probably finance the country's budget deficit both in 2005 and 2006.

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<sup>2</sup> As of January 2005, Ukraine reportedly had 11 SEZs and 72 TPDs on its territory, involving 212 and 556 investment projects, respectively.

<sup>3</sup> The Socialist Party, led by Alexander Moroz, supported the presidential bid of Mr Yushchenko in the second round of the 2004 elections and was rewarded with several posts in the government.

The fiscal success of the government measures has been impressive, but the investment demand has plunged. Fixed capital investments, which had been one of the major driving forces of growth in the past few years, increased by just 3.4% in the first three quarters of 2005 – compared to 34.5% over the same period of 2004. The inflows of FDI contracted by nearly 40% in euro terms in the first half of 2005, and construction output declined by 6.6% in the year as a whole.

Finally, despite its relatively large population, Ukraine has an extremely open economy,<sup>4</sup> thus any changes in the dynamics of exports and imports have a strong impact on the country's economy. Against this background, the disappointing performance of foreign trade since the 'orange revolution' has been bad news, although the problems have been only partly domestically generated. On the one hand, the exports of steel – Ukraine's main export commodity – suffered as world steel prices plunged by some 30% following the expansion of steel production in China. Simultaneously, imports were fostered by increased social spending and the nominal 4.7% revaluation of the Ukrainian currency (hryvnia) against the US dollar in April 2005. The resulting turnaround in the country's trade balance has been dramatic: the trade surplus in goods, which had reached EUR 3 billion in 2004, turned into a *deficit* of EUR 1 billion in the first eleven months of 2005, at least according to the customs statistics.

The above-mentioned revaluation of the hryvnia was intended to ease the inflationary pressure by depressing the costs of imports (in particular energy) and reducing the external surplus and the resulting monetary expansion. However, in reality, it hurt economic growth by reducing the competitiveness of domestically produced goods, while the inflationary pressure stayed stubbornly high. In 2005, the consumer price index climbed to 13.5% on average, although the recent deceleration of producer prices in industry (driven not least by the falling metals prices) is encouraging and will contribute to a lower consumer inflation in 2006 (see Table 2.2). In any case, the currently observed inflation rates do not represent an imminent threat to economic growth. However, the IMF names taming inflation a key priority for the country's authorities. The prescribed instruments are standard and include a more restrictive monetary and fiscal policy. In the area of monetary policy, the IMF is advocating direct inflation targeting in place of the *de facto* peg to the US dollar pursued so far (with the only exception of the one-time revaluation in April). The nominal peg to a currency which was generally declining in real terms against the currencies of Ukraine's main trading partners – Russia and the EU – maintained Ukraine's competitiveness until 2005 and undoubtedly had a strong expansionary impact. In the present circumstances, and given the expected pick-up in FDI inflows, adopting a more flexible exchange rate regime would almost certainly result in a further nominal appreciation of the hryvnia and thus harm economic growth even more.

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<sup>4</sup> Ukraine's foreign trade turnover in goods and services amounted in 2004 to 115% of GDP.

The recent negative economic developments could not but have their spill-overs into politics. On 8 September 2005, President Yushchenko (rather unexpectedly) dismissed the government of Yuliya Tymoshenko. The move followed a protracted period of infighting within the ruling elite, reflecting partly personal ambitions, but also the divergence of views on some key policy issues, particularly in the area of the economy. Simultaneously, it marked a fundamental switch in the country's political landscape, as Mr Yushchenko resorted to co-operating with his former rival in the presidential elections Viktor Yanukovych in order to secure the appointment of Yuri Yekhanurov as the new prime minister. This new alliance may also be interpreted as an attempt to bridge the rift between the West and the East of the country, which emerged after Mr Yushchenko's victory in the presidential elections. The immediate task of the Yekhanurov government was to repair the damage inflicted to the economy by the previous government. Most importantly, a large-scale re-privatization campaign was aborted, although the first declarations of the new prime minister suggested that some of the current owners might be asked to pay extra to the state to secure their property rights. Another priority was mending relations with Russia, not least in order to secure beneficial terms for energy supplies (although, as shown by the recent dramatic negotiations over the price of natural gas imported from Russia, the latter goal has hardly been achieved).

The Yekhanurov government is transitory, given the upcoming parliamentary elections scheduled for 26 March 2006 and the constitutional amendments entering into force. These amendments, aiming at turning Ukraine from a presidential-parliamentary into a parliamentary-presidential republic, were passed in December 2004 as a concession to the forces supporting the outgoing president Kuchma, in exchange for alterations to the law on presidential elections, making it more difficult to manipulate the voting in the 'third round'. After the constitutional amendments have taken effect, the government will be formed by a majority coalition in the parliament, although the president will retain his right to propose the ministers of defence and foreign affairs. Also, the 2006 parliamentary elections will for the first time be held on an entirely proportional basis, while the threshold for parties to get into the parliament has been lowered to 3% from 4% previously. Given the relatively low threshold and the country's fragmented party structure (currently, there are fourteen factions in the parliament), the ability of individual parties to form a working coalition will be crucial. While at present it seems that at least six parties will comfortably exceed the 3% threshold, the key role in the coalition-building will be played by three parties enjoying similar support levels: the liberal pro-western 'Our Ukraine' of Mr Yushchenko, the socially populist pro-western 'Batkivschina' of Ms Tymoshenko, and the liberal pro-Russian 'Party of Regions' of Mr Yanukovych. As of now, it is difficult to judge about the composition of the future coalition, with only one out of the three options – a coalition between Tymoshenko and Yanukovych – appearing highly unlikely. Meanwhile, either of the two remaining has its advantages and drawbacks. A (renewed) Yushchenko-Tymoshenko coalition will push hard

Table 2.2

## Selected monthly data on the economic situation, 2004 to 2005

		2004				2005											
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>PRODUCTION</b>																	
Industry, total	real, CMPY	9.9	7.7	11.3	4.3	8.4	5.6	6.6	5.1	4.3	-0.9	-2.4	0.9	0.9	2.4	2.0	5.3
Industry, total	real, CCPY	14.4	13.6	13.4	12.5	8.4	7.3	7.1	6.7	6.2	5.0	3.9	3.5	3.2	3.1	2.9	3.1
Industry, total	real, 3MMA	.	9.6	7.8	8.0	6.1	6.9	5.8	5.3	2.8	0.3	-0.8	-0.2	1.4	1.8	3.2	.
<b>LABOUR</b>																	
Employees <sup>1)</sup>	th. persons	11297	11290	11246	11157	11206	11248	11315	11332	11319	11339	11371	11361	11361	11357	11306	11220
Employees in industry <sup>1)</sup>	th. persons	3412	3422	3415	3388	3401	3413	3428	3421	3410	3408	3413	3410	3407	3407	3394	3368
Unemployment, end of period	th. persons	914.0	893.6	919.7	981.8	992.2	1019.0	1018.4	986.7	918.6	858.3	825.4	800.4	780.6	762.9	809.7	881.5
Unemployment rate <sup>2)</sup>	%	3.3	3.3	3.4	3.5	3.5	3.6	3.6	3.5	3.3	3.0	2.9	2.8	2.8	2.7	2.9	3.1
Labour productivity, industry <sup>1)</sup>	CCPY	.	.	.	.	8.2	6.9	6.5	6.1	5.6	4.4	3.4	3.1	2.9	2.8	2.7	3.0
Unit labour costs, exch.r. adj.(EUR) <sup>1)</sup>	CCPY	.	.	.	.	11.7	14.1	14.0	14.9	17.0	20.2	23.2	24.9	26.1	27.2	29.1	30.6
<b>WAGES, SALARIES<sup>1)</sup></b>																	
Total economy, gross	UAH	631	636	644	704	641	667	722	734	764	823	837	831	856	882	897	1020
Total economy, gross	real, CMPY	14.4	14.3	18.2	13.7	13.9	15.4	15.5	16.8	20.2	19.6	20.0	19.7	19.2	23.3	24.3	31.3
Total economy, gross	USD	119	120	121	133	121	126	136	141	151	163	166	165	170	175	178	202
Total economy, gross	EUR	97	96	94	99	92	97	103	109	119	134	138	134	138	145	150	170
Industry, gross	EUR	121	121	116	120	117	120	130	135	144	156	163	165	166	171	177	188
<b>PRICES</b>																	
Consumer	PM	1.3	2.2	1.6	2.4	1.7	1.0	1.6	0.7	0.6	0.6	0.3	0.0	0.4	0.9	1.2	0.9
Consumer	CMPY	10.7	11.7	11.3	12.3	12.6	13.3	14.7	14.7	14.6	14.4	14.8	14.9	13.9	12.4	12.0	10.3
Consumer	CCPY	8.1	8.5	8.7	9.0	12.6	13.0	13.5	13.8	14.0	14.1	14.2	14.3	14.2	14.0	13.8	13.5
Producer, in industry	PM	1.9	1.6	2.2	1.0	0.2	2.7	1.9	2.5	1.6	-0.8	-1.6	0.7	1.9	0.0	-0.1	0.3
Producer, in industry	CMPY	23.2	24.3	25.2	24.3	22.6	22.4	22.0	21.1	20.5	17.7	15.7	14.7	14.7	12.9	10.4	9.6
Producer, in industry	CCPY	19.0	19.5	20.1	20.4	22.6	22.5	22.3	22.0	21.7	21.0	20.2	19.5	18.9	18.3	17.5	16.8
<b>RETAIL TRADE</b>																	
Turnover <sup>3)</sup>	real, CCPY	19.9	20.8	20.8	20.0	21.2	20.3	18.6	19.2	20.4	21.1	21.8	23.0	23.1	22.4	22.4	23.0
<b>FOREIGN TRADE<sup>4)</sup></b>																	
Exports total (fob), cumulated	EUR mn	19444	21610	23883	26278	1896	3925	6372	8714	10909	13174	15436	17693	19998	22430	24909	.
Imports total (cif), cumulated	EUR mn	16873	18999	21119	23321	1376	3223	5716	8103	10298	12877	15343	17986	20591	23243	25981	.
Trade balance, cumulated	EUR mn	2570	2611	2764	2957	519	702	655	611	612	297	93	-293	-592	-813	-1072	.
<b>FOREIGN FINANCE</b>																	
Current account, cumulated <sup>5)</sup>	EUR mn	4585	.	.	5476	.	.	1296	.	.	1777	.	.	1649	.	.	.
<b>EXCHANGE RATE</b>																	
UAH/USD, monthly average	nominal	5.310	5.307	5.306	5.306	5.305	5.300	5.292	5.190	5.050	5.055	5.053	5.050	5.050	5.050	5.050	5.050
UAH/EUR, monthly average	nominal	6.480	6.621	6.885	7.103	6.990	6.894	6.983	6.714	6.422	6.151	6.090	6.208	6.200	6.070	5.961	5.983
UAH/USD, calculated with CPI <sup>7)</sup>	real, Jan00=100	76.7	75.4	74.2	72.2	71.1	70.7	70.1	68.7	66.3	66.1	66.1	66.4	66.9	66.5	65.7	65.1
UAH/USD, calculated with PPI <sup>7)</sup>	real, Jan00=100	69.1	69.0	68.1	66.9	67.1	65.5	65.1	62.8	59.9	60.3	62.2	62.1	62.8	64.4	64.4	64.2
UAH/EUR, calculated with CPI <sup>7)</sup>	real, Jan00=100	91.5	91.8	93.9	95.0	91.6	89.8	89.9	86.2	82.1	78.3	77.3	79.0	78.9	76.7	74.4	74.1
UAH/EUR, calculated with PPI <sup>7)</sup>	real, Jan00=100	77.3	78.2	79.5	80.9	79.8	76.9	77.0	72.5	68.1	65.9	66.5	67.5	66.5	65.3	64.2	64.3
<b>DOMESTIC FINANCE</b>																	
M0, end of period	UAH bn	42.3	41.3	40.9	42.3	40.6	41.8	43.1	47.6	47.9	51.3	53.8	53.8	55.5	54.9	55.1	.
M1, end of period	UAH bn	70.3	66.7	65.7	67.1	64.9	67.1	73.5	76.2	77.6	83.8	84.8	85.5	90.1	88.7	92.7	.
Broad money, end of period	UAH bn	130.3	126.2	125.3	125.8	125.8	130.9	140.1	146.5	147.9	156.3	159.1	164.8	171.0	174.8	180.1	.
Broad money, end of period	CMPY	50.6	45.3	41.9	32.4	35.8	36.3	38.5	39.4	35.1	37.2	35.9	35.6	31.3	38.5	43.8	.
Refinancing rate (p.a.), end of period	%	7.5	8.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.5	9.5	9.5	9.5	9.5
Refinancing rate (p.a.), end of period <sup>8)</sup>	real, %	-12.8	-13.1	-12.9	-12.3	-11.1	-10.9	-10.7	-10.0	-9.5	-7.4	-5.8	-4.5	-4.5	-3.0	-0.8	-0.1
<b>BUDGET</b>																	
General gov. budget balance, cum.	UAH mn	-1799	-4723	-6199	-11009	1503	2042	2931	2252	4007	1735	2959	6907	5816	5309	3216	.

Notes: 1) Excluding small firms. - 2) Ratio of registered unemployed to the economically active. - 3) Official registered enterprises. - 4) Based on cumulated USD and converted using the ECB EUR/USD average foreign exchange reference rate. - 5) Cumulation starting January and ending December each year. - 6) Calculated from USD to NCU to EUR using the official average exchange rate. - 7) Adjusted for domestic and foreign (US resp. EU) inflation. Values less than 100 mean real appreciation. - 8) Deflated with annual PPI.

CMPY: change in % against corresponding month of previous year – CCPY: change in % against cumulated corresponding period of previous year - 3MMA: 3-month moving average, change in % against previous year. – CPI: consumer price index – PM: change in % against previous month - PPI: producer price index

Source: wiiw Database incorporating national statistics.

for Ukraine's European integration, but the quality of economic policy-making may deteriorate again. In turn, a Yushchenko-Yanukovich coalition will probably ensure a better economic policy, but will also be more balanced in its foreign policy. In any case, the key challenge for the authorities in the medium and long run will be attracting foreign investment and upgrading the country's production and export structure in favour of goods with higher value-added, thereby generating a sustainable long-run growth path.

### **3 Ukraine, the EU and EU enlargement**

*by Vasily Astrov*

In this section, we analyse the trade relations between Ukraine and the EU, its biggest trading partner. The section is organized as follows.

First, we give a general overview of the volume, composition and balance of Ukraine's trade with the 'old' EU (EU-15) and the new EU member states (NMS). In a next step, we reveal Ukraine's comparative advantages in trade with these partners and identify to what extent trade is driven by the discrepancies in factor endowments rather than by the differences in consumer preferences. We also analyse the institutional aspects of the relations between Ukraine and the EU, dealing specifically with the provisions relevant for mutual trade and investment. These aspects may be helpful in explaining some of the problems existing in the bilateral economic relations and also the *ex ante* attitude of Ukraine towards EU enlargement. Finally, we focus on the impact of the EU enlargement of 1 May 2004 on Ukraine, in particular answering the question whether Ukraine's exports to the NMS markets have suffered from the perceived erection of new non-tariff trade barriers.

The statistical data underlying our analysis are drawn from a wide variety of sources. To ensure the consistency and comparability of data, the main source has been the World Bank (WITS) COMTRADE database, complemented by data taken from the Eurostat COMEXT database, the WTO (on tariffs) as well the national statistical agency Derzhkomstat (providing generally the most up-to-date information).

#### **3.1 Patterns of trade**

Since the mid-1990s, when the first reliable foreign trade data for independent Ukraine were available, exports to the EU-15 have more than doubled and reached EUR 4.6 billion by 2004 (see Table 3.1). This development was well in line with the general trend of the former Soviet republics' export re-orientation towards non-CIS markets. Although



Table 3.1

**Structure of EU-15 trade with Ukraine**

NACE rev.1 classification	EU-15 exports				EU-15 imports			
	1995	1998	2001	2004	1995	1998	2001	2004
<b>Total, EUR million</b>	<b>2250</b>	<b>3543</b>	<b>4952</b>	<b>7258</b>	<b>1544</b>	<b>2235</b>	<b>3651</b>	<b>4587</b>
shares in total (%)								
A,B Agriculture	1.8	1.8	2.6	2.3	6.7	10.0	9.8	5.4
CA Extraction of crude petroleum and natural gas, coal	0.0	0.0	0.0	0.0	3.9	0.5	5.4	2.9
CB Mining of metals	0.0	0.0	0.1	0.0	0.1	1.0	0.5	0.5
CB Stone and clay	0.7	0.5	0.7	0.5	1.0	2.1	2.7	2.7
DA Food products; beverages and tobacco	12.3	8.2	3.8	4.4	8.3	4.9	6.3	6.5
DB Textiles and textile products	7.0	8.6	10.3	8.7	10.2	12.2	12.1	10.0
DC Leather and leather products	1.6	2.1	2.1	1.6	3.0	3.6	3.5	2.8
DD Wood and wood products	0.4	0.6	0.5	0.7	0.7	1.3	2.6	3.6
DE Pulp, paper & paper products; publishing & printing	2.6	3.3	3.5	3.2	0.1	0.1	0.0	0.1
DF Coke, refined petroleum products & nuclear fuel	3.0	1.6	0.7	0.5	7.1	3.3	13.6	8.3
DG Chemicals, chemical products and man-made fibres	10.4	12.5	12.4	12.9	13.3	8.2	6.0	5.7
DH Rubber and plastic products	2.0	3.5	3.7	3.9	0.2	0.2	0.3	0.5
DI Other non-metallic mineral products	1.3	1.9	2.1	1.8	0.7	1.1	0.5	0.3
DJ Basic metals and fabricated metal products	6.0	4.7	5.4	4.8	28.1	33.6	24.3	36.7
DK Machinery and equipment n.e.c.	17.2	17.1	16.5	18.9	1.1	2.6	1.5	1.8
DL Electrical and optical equipment	11.2	13.7	16.8	18.2	1.3	2.7	1.9	3.2
DM Transport equipment	11.5	12.9	11.9	11.3	6.6	4.4	2.7	3.5
DN Manufacturing n.e.c.	3.0	3.1	3.4	3.2	1.8	1.8	2.3	2.0
E Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	7.9	3.9	3.5	3.1	5.5	6.4	3.8	3.5

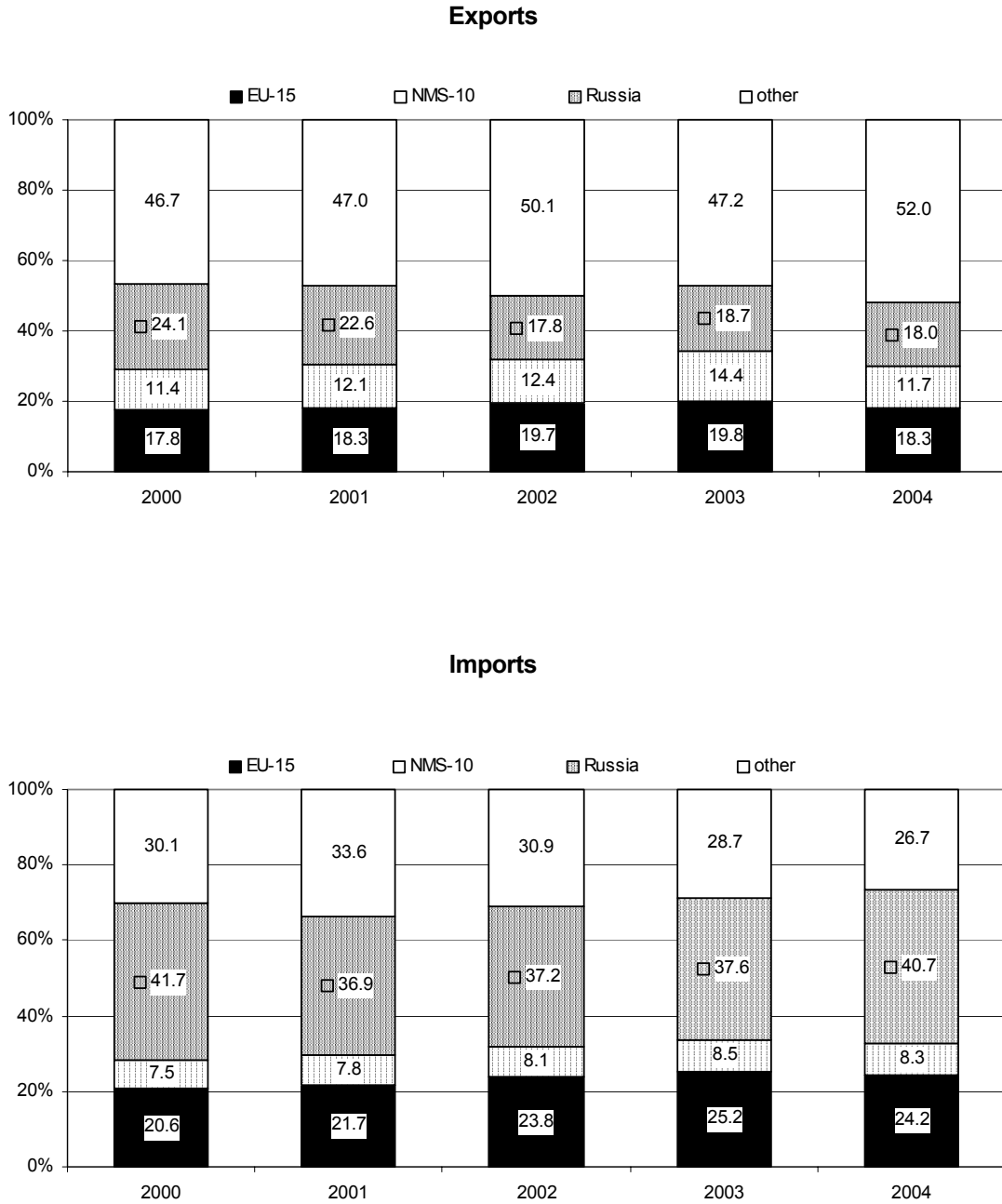
Source: wiiw calculations based on Eurostat COMEXT Database.

comparisons across countries and over time are difficult – largely due to exchange rate problems involved<sup>5</sup> – there is little doubt that the role of the post-Soviet states, particularly on the export side, has shrunk sizeably and stood at just 26% in 2004 (18% of which representing Russia) – see Figure 3.1. Imports from the EU-15 have increased dramatically as well, reaching EUR 7.3 billion in 2004. However, they underwent a temporary setback in 1999, following the Russian financial crisis and the subsequent devaluation of the hryvnia, which brought about a temporary reduction of Ukraine's persistent trade deficit with the EU. Since 1999 that deficit has been on the rise again, reaching EUR 2.7 billion in 2004.

<sup>5</sup> In particular, the official/commercial exchange rate of the Soviet rouble to the US dollar, at which intra-USSR trade flows have to be converted to enable comparisons over time, was set arbitrarily and was by most accounts strongly overvalued.

Figure 3.1

**Ukraine: Foreign trade by regions**  
(in % of total)



Source: Derzhkomstat.

Despite this upward trend, in 2004 the EU-15 accounted for only 18.3% of Ukraine's exports and 24.2% of its imports. However, the weight of the EU increased markedly following the accession of ten new countries on 1 May 2004, many of which – notably those located in Central and Eastern Europe – are extensively trading with Ukraine. The share of the NMS-10 amounted to 11.7% on the export side and 8.3% on the import side in 2004. Table 3.2 shows that both Ukraine's exports and imports to and from the NMS have been generally increasing over the past few years.<sup>6</sup> However, unlike with the EU-15,

Table 3.2

**Ukraine's trade with the NMS-7**

USD mn	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>Exports</b>									
Poland	362.2	380.1	312.1	300.8	417.3	496.9	504.8	763.0	979.9
Hungary	371.5	318.6	263.0	278.1	327.2	468.4	525.0	850.4	807.6
Slovak Republic	229.7	278.9	245.0	198.9	229.6	243.1	291.5	289.1	398.1
Czech Republic	142.9	173.7	171.4	141.4	188.5	194.3	172.2	216.4	299.1
Estonia	53.8	43.3	49.3	45.3	52.8	55.5	85.0	363.9	278.3
Latvia	77.8	78.7	77.6	49.1	166.5	251.2	235.0	266.7	377.2
Lithuania	131.2	102.3	101.7	72.4	83.2	140.3	197.4	237.6	468.6
<b>Total</b>	<b>1369.2</b>	<b>1375.6</b>	<b>1220.1</b>	<b>1086.0</b>	<b>1465.1</b>	<b>1849.7</b>	<b>2010.9</b>	<b>2987.1</b>	<b>3608.8</b>
<b>Imports</b>									
Poland	509.1	546.0	482.4	254.4	307.2	446.2	532.3	802.4	1008.2
Hungary	237.1	195.6	192.2	120.6	164.4	170.8	187.1	270.1	471.4
Slovak Republic	182.5	204.0	169.4	128.9	123.4	139.2	135.7	200.7	243.1
Czech Republic	238.7	219.0	208.1	130.5	162.1	202.1	222.3	314.3	430.8
Estonia	38.5	72.4	92.5	58.4	45.4	65.8	49.9	67.9	80.0
Latvia	92.3	82.2	45.4	54.8	43.3	35.8	35.2	56.1	59.9
Lithuania	156.3	242.4	239.6	82.5	135.3	109.8	121.2	136.3	173.7
<b>Total</b>	<b>1454.5</b>	<b>1561.5</b>	<b>1429.5</b>	<b>830.0</b>	<b>981.1</b>	<b>1169.7</b>	<b>1283.8</b>	<b>1847.8</b>	<b>2467.1</b>
<b>Trade balance</b>									
Poland	-146.9	-165.8	-170.3	46.4	110.1	50.7	-27.5	-39.4	-28.3
Hungary	134.4	123.0	70.8	157.6	162.8	297.6	337.9	580.3	336.2
Slovak Republic	47.3	74.9	75.7	70.0	106.2	103.9	155.8	88.4	155.0
Czech Republic	-95.8	-45.3	-36.7	10.9	26.4	-7.8	-50.1	-97.9	-131.7
Estonia	15.4	-29.1	-43.2	-13.1	7.5	-10.3	35.1	296.0	198.3
Latvia	-14.5	-3.5	32.2	-5.7	123.1	215.4	199.8	210.6	317.3
Lithuania	-25.1	-140.1	-138.0	-10.1	-52.2	30.5	76.2	101.3	294.9
<b>Total</b>	<b>-85.3</b>	<b>-185.9</b>	<b>-209.4</b>	<b>256.1</b>	<b>483.9</b>	<b>680.0</b>	<b>727.1</b>	<b>1139.3</b>	<b>1141.7</b>

Source: COMTRADE database, Derzhkomstat, own calculations.

<sup>6</sup> NMS-7 refers to the seven new EU member states of Central and Eastern Europe: Poland, Hungary, Czech Republic, Slovakia, Estonia, Latvia and Lithuania. Here and throughout most of the text, we disregard the three remaining NMS – Malta, Cyprus and Slovenia – due to their low importance as trading partners for Ukraine. In addition, the figures for Cyprus – an important 'offshore haven' for capital which fled Russia and Ukraine over the years of transition – appear to be biased, especially on the export side. Nevertheless, whenever NMS-8 is referred to, Slovenia is included.

Ukraine's trade balance with the NMS-7 has been invariably in surplus since 1999, reaching USD 1.14 billion (EUR 916 million) by 2004.

The enlarged EU (EU-25) is now Ukraine's biggest trading partner. In 2004, it was the destination of 30% of Ukraine's exports and the source of 32.5% of Ukraine's imports. In turn, for the EU-25, the importance of Ukraine as a trading partner is negligible: 0.3% in terms of exports and 0.2% in terms of imports. Thus, the share of Ukraine in extra-EU trade is much below those of the NMS-8 and Russia, and reflects the huge gap in the size of the two economies. In 2004, Ukraine's GDP stood at about EUR 280 billion in purchasing power parity terms (just 2.3% of the EU-25 level) and at a mere EUR 52 billion when converted at market exchange rates – less than 1% of the EU-25 level. This asymmetry is in part explained by the very unequal population size: the EU population of 455 million compares to the 47 million (and persistently declining) population of Ukraine. However, even more important is the difference in per capita GDP: in 2004 Ukraine's per capita GDP stood at just 26% of the EU-25 level in purchasing power parity terms.

Also the *structure* of trade between Ukraine and the EU-15 (or, for that matter, the EU-25) is indicative of the pronounced economic asymmetries. 85% of Ukraine's exports to the EU-15 are represented by manufacturing industry products, the most important items in 2004 being basic metals (36.7% of the total), textiles (10%) and fuels (8.3%). Exports of oil products have been generally rising since 2001 (as have exports of crude oil and natural gas), partly reflecting the high world market prices, but also the lifting of the ban by Russia on its fuels re-exports. However, basic metals are still the principal area of Ukraine's specialization vis-à-vis the EU. This is largely due to basic iron and steel: Ukraine commands a share of 6.7% in total EU-15 imports of these products. By contrast, chemical products, particularly basic chemicals, have been the major loser: their share in Ukraine's exports to the EU-15 contracted from 13.3% in 1995 to just 5.7% in 2004. Other products that have suffered a considerable decline are, for instance, dairy products and meat (see Table A1 of the Appendix). Apart from the manufacturing industry, agricultural exports have been generally quite important as well, although their share has fluctuated widely, largely on account of the changing weather conditions for harvests. In turn, the structure of Ukraine's imports from the EU-15 has remained relatively stable over time, with various types of machinery and equipment (including electrical, optical and transport equipment) accounting for nearly half of total imports in 2004.

The structural asymmetry of trade flows between Ukraine and the EU countries suggests a predominance of the so-called *inter*-industry trade, with exports and imports being represented by different commodity groups. Generally, inter-industry trade is caused by differing factor endowments of trading partners, with each country tending to export goods

whose production requires a high input of factors relatively abundant in this country.<sup>7</sup> The relative abundance of labour and the relative scarcity of capital and technological know-how in Ukraine (as compared to the EU) results in exports of low value-added labour-intensive products to the EU and imports of technically sophisticated, capital- and R&D-intensive items from the EU. As opposed to inter-industry trade, *intra*-industry trade denotes an exchange of commodities belonging to the same commodity group. It is driven by product differentiation and economies of scale rather than by differing factor endowments and dominates in the first instance trade between developed countries.

To measure the extent of intra-industry trade between Ukraine and its trading partners (countries of the EU and Russia), we refer to the so-called *Grubel-Lloyd index* calculated on the basis of the Harmonized System (HS) 2-digit commodity groups and presented in Table 3.3.<sup>8</sup>

Table 3.3

<b>Indicators of Ukraine's intra-industry trade</b>							
(Grubel-Lloyd index calculated on the basis of HS 2-digit commodity groups)							
<b>With:</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
EU(15)	0.28	0.24	0.25	0.27	0.30	0.29	0.25
NMS							
Poland	0.25	0.34	0.25	0.31	0.38	0.35	0.37
Hungary	0.16	0.18	0.20	0.22	0.28	0.28	0.27
Slovak Republic	0.22	0.27	0.26	0.25	0.22	0.25	0.27
Czech Republic	0.16	0.20	0.14	0.21	0.18	0.18	0.13
Estonia	0.20	0.34	0.24	0.32	0.27	0.41	0.29
Latvia	0.23	0.26	0.35	0.25	0.23	0.11	0.10
Lithuania	0.21	0.15	0.15	0.19	0.17	0.26	0.27
Russia	0.30	0.28	0.29	0.27	0.34	0.39	0.35

Source: Own calculations based on COMTRADE data.

<sup>7</sup> A good overview of the relevance of economic theory for explaining the existing patterns of trade is given in Helpman (1999).

<sup>8</sup> The Grubel-Lloyd indices were calculated on the basis of HS 2-digit commodity groups in the following way:

$$GL = 1 - \frac{\sum_i ABS(X_i - M_i)}{\sum_i (X_i + M_i)}, \text{ where}$$

$GL$  is the Grubel-Lloyd index of intra-industry trade between Ukraine and a given country for a given year;

$X_i$  is the value of Ukraine's exports of commodity  $i$  to the given country in the given year;

$M_i$  is the value of Ukraine's imports of commodity  $i$  from the given country in the given year.

In trade with the EU-15, the Grubel-Lloyd index of intra-industry trade did not exhibit any clear trend and stood at 0.25 in 2002. This is a fairly low level, making Ukraine comparable e.g. to some of the less advanced Southeast European (non-EU) countries, as far as the composition of their trade flows with the EU-15 is concerned.<sup>9</sup> Table 3.3 also shows that although the Grubel-Lloyd index was fluctuating somewhat over time, it never exceeded 0.30. Interestingly, the Grubel-Lloyd indices of Ukraine's trade with the NMS are largely comparable with that with the EU-15. Thus, even in trade with these countries, the differences in factor endowments and the technological gap appear to be crucial. In fact, with countries such as the Czech Republic and Latvia, intra-industry trade was even less pronounced than with the EU-15. For instance, in the case of the Czech Republic, the Grubel-Lloyd index never climbed above 0.21 and declined to a mere 0.13 by 2002. By contrast, Poland recorded the highest level of the index (0.37), in fact ranking above Russia on this account.

To identify the pattern of Ukraine's specialization vis-à-vis its trading partners, we calculated the so-called *revealed comparative advantage* index (RCA).<sup>10</sup> Generally, a positive and high value of RCA for a particular commodity points to a high degree of competitiveness of the country in the production of this commodity. In turn, a strongly negative RCA indicates a lack of competitiveness. Changes in the value of RCA over time may be interpreted accordingly. For example, an increase in RCAs of more sophisticated products may be a sign of successful industrial restructuring. However, the interpretation of RCA indices as a measure of competitiveness is constrained by the existence of trade barriers, which distort the pattern of country specialization. The latter is, for example, true for exports of steel or certain agricultural products from Ukraine to the EU and has to be kept in mind.

Tables A2-A10 of the Appendix present the results of our calculations of RCA values for the 97 HS 2-digit commodity groups traded between Ukraine, on the one hand, and the EU-15, the NMS and Russia, on the other. Table A2 shows that Ukraine's position in trade with the EU-15 is particularly strong in selected *agricultural products* (cereals and selected vegetable products), *mineral products* (salt, sulphur, etc.; ores, and mineral fuels), *fertilizers*,

<sup>9</sup> The intra-industry trade of the NMS with the EU-15 is much larger.

<sup>10</sup> The revealed comparative advantages were calculated as follows:

$$RCA_i^j = \frac{X_i^j - M_i^j}{X_i^j + M_i^j},$$

where  $RCA_i^j$  is revealed comparative advantage of Ukraine vis-à-vis country  $j$  in production of commodity  $i$ ;

$X_i^j$  is the value of Ukraine's exports of commodity  $i$  to country  $j$ ;

$M_i^j$  is the value of Ukraine's imports of commodity  $i$  from country  $j$ .

Given our definition, RCA can take values between -1 and 1.

*non-knitted apparel and clothing*, and *metals* (iron and steel and ‘other base metals’). However, the comparative advantage in cereals is fluctuating and strongly depends on the weather conditions for harvests. For other commodity groups, comparative advantages are much more stable and reflect the niche of the country’s specialization vis-à-vis the EU.

Table 3.4

**Products with the highest RCAs in trade with the NMS**

(based on HS 2-digit commodity groups)

HS 2-digit	Product	PL	HU	CZ	SK	EE	LT	LV
03	fish	+	+	+				
04	dairy products			+				
05	products of animal origin	+	+	+	+			
06	live tree			+			+	
07,20	vegetables, products thereof					+	+	+
08,20	fruit and nuts, products thereof			+	+	+	+	
09	coffee, tea						+	
10.19	cereals, products thereof	+			+	+		+
12	oil seed					+	+	
14	vegetable plaiting materials	+	+					
17,18	sugar, cocoa							+
22	beverages and spirits				+		+	+
24	tobacco					+	+	+
25	salt, sulphur, etc.		+			+	+	+
26	ores	+	+	+	+	+		+
27	mineral fuels		+	+	+			
28	inorganic chemicals							+
31	fertilizers	+	+	+	+	+		+
33,34	essential oils and soap					+		
40	rubber					+	+	
41	hides and skins						+	+
51	wool					+		
62	non-knitted apparel and clothing		+		+			
68	stone, plaster, etc.		+					+
69	ceramic products							+
72	iron and steel	+	+	+			+	+
74	copper						+	
76	aluminium		+		+			
78	lead				+			+
79	zinc						+	
81	other base metals					+	+	
86	locomotives					+	+	
88	aircraft and spacecraft					+	+	+
89	ships and boats							+

Source: own calculations based on COMTRADE data.

Tables A3-A9 of the Appendix present the results of our RCA calculations for Ukraine's trade with the NMS, while Table 3.4 summarizes the commodity groups in which Ukraine enjoys the *highest* comparative advantages. The selection of these groups was based on (1) the high value of RCA, generally exceeding 0.9, and (2) the persistence of this comparative advantage over time.<sup>11</sup> The pattern of Ukraine's RCAs in trade with the individual NMS presents certain similarities, as well as similarities to the pattern of Ukraine's specialization in trade with the EU-15. Thus, *ores* and *fertilizers* are the areas of Ukraine's comparative advantage in trade with *all* these countries (except Lithuania) and also with the EU-15. The same is largely true for *iron and steel*, which have a comparative advantage with five of the NMS and with the EU-15 at the same time. As far as other commodity groups are concerned, the pattern of RCAs is more fragmented, although also in trade with the NMS it is first of all *mineral products*, a wide range of *agricultural products*, and *metals* (other than iron and steel) which typically exhibit comparative advantages. The range of agricultural products in which Ukraine has a comparative advantage is particularly broad: out of thirty-eight commodity groups presented in Table 3.4, sixteen represent agricultural produce and food (for more on that see section 5).

Table 3.4 also reveals the differences across the individual NMS as far as their trade with Ukraine is concerned. Thus, within agricultural products, *fish* and *products of animal origin* have a distinct comparative advantage in trade with the Central European NMS, but not with the Baltic countries, whereas in the case of *vegetables* and *tobacco* it is the other way around. Also – unlike in its trade with the Central European NMS – Ukraine has a comparative advantage in selected machinery products such as *aircraft* and *locomotives* in the Baltic countries. On the one hand, the latter reflects the production links dating back to Soviet times, but it is also a sign of a strong competitive position of Ukraine in these markets, making the Baltic countries somewhat similar to Russia in this respect.

### 3.2 Institutional aspects

The EU's institutional relations with Ukraine largely reflect the above-mentioned economic asymmetries. The history of institutional relations between the EU and Ukraine goes back to December 1991, when the European Communities adopted a 'declaration on Ukraine' stressing *inter alia* the democratic character of Ukraine's referendum on independence. The centrepiece of these relations over the past ten years has been the so-called *Partnership and Cooperation Agreement (PCA)*. The PCA was signed in June 1994 and went into force in March 1998, although its trade provisions had taken effect already in

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<sup>11</sup> When comparing the patterns of RCAs across countries, the following bias resulting from the methodology applied has to be taken into account. Generally, the smaller trade flows and the more narrow range of products traded with smaller countries (e.g. with Latvia, as compared to Poland) lead to a higher number of commodity groups having an RCA close to one. As a result, and as exemplified in Table 3.4, Ukraine has more areas of comparative advantage in trade with Latvia than with Poland (16 versus 7).



February 1995 by way of an Interim Agreement. The agreement was concluded for ten years with an option of automatic prolongation and provided a framework for a political dialogue between the two sides, which has been conducted through yearly summits. In general terms, the agreement supports Ukraine's efforts towards democracy and the approximation of its legislation to EU standards. In the sphere of the economy, it aims at fostering trade and investment by granting better access to each other's markets, creating a level playing field for investment, and promoting cooperation in a number of priority areas. In the area of trade, the PCA contains the body of WTO rules and norms, despite the fact that Ukraine has not become a WTO member so far.<sup>12</sup> Most importantly, the agreement envisages the most-favoured-nation (MFN) principle in merchandise trade, although in reality, up to 2005 many items of Ukrainian exports to the EU enjoyed even lower import tariffs provided by the so-called Generalized System of Preferences (GSP).<sup>13</sup> The PCA also mentions the possibility of establishing a free trade zone in the future and ensures the freedom of transit of goods destined for third countries. Any subsidies distorting free and fair competition between domestic and imported goods are unwelcome, except in the production of unprocessed agricultural and mineral products. Generally, the PCA also forbids the application of quantitative restrictions in mutual trade, although it grants the EU the right to impose import quotas on textiles and steel products. Meanwhile the textiles quotas have been abolished, but those for steel are still in place.

Also, the PCA aims to create a favourable and stable climate for investment by easing the establishment and the operating conditions for each other's companies. In particular, the EU grants 'national' (non-discriminating) treatment to Ukrainian companies operating on its territory, although certain 'sensitive' sectors (mining, fishing, real estate, audio-visual services, telecommunications, certain professional services, agriculture, and news agencies) are exempted. In turn, European companies wishing to establish themselves in Ukraine are given the choice between 'national treatment' (the rules applied to domestic companies) and 'MFN treatment' (the 'best' rules applied to foreign companies). However, in certain sectors (banking, insurance, real estate, natural resources, fishing, hunting, agriculture, lease of state property, telecommunications, mass media, certain professions, and operations affecting historical monuments) the MFN principle is applied uniformly.

The subsequent years witnessed a further rapprochement between Ukraine and the EU. In June 1996, the EU gave Ukraine the status of a country with an economy in transition, and in June 1998, Ukraine announced its intention to become an EU associate member. In December 1999, the EU adopted a Common Strategy covering a four-year period.<sup>14</sup> The

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<sup>12</sup> The issue of Ukraine's WTO accession is covered in section 6 of this report.

<sup>13</sup> The GSP preferences distinguished between two types of goods: 'non-sensitive' (for which import duties were set at zero) and 'sensitive' (for which they were reduced), but did not apply to products such as iron and steel, fertilizers, fish, and a number of agricultural products.

<sup>14</sup> European Council (1999).

Strategy welcomed Ukraine's European choice and outlined a strategic partnership between the EU and Ukraine on the basis of the PCA. As far as the economic sphere was concerned, the Strategy's priorities included supporting economic transition in Ukraine; ensuring environmental protection, energy and nuclear safety; strengthening cooperation between the EU and Ukraine in the context of enlargement; and assisting Ukraine's integration into the European and world economy.

Ukraine has received substantial technical assistance from the EU, largely channelled through the Tacis (Technical Assistance to the Commonwealth of Independent States) programme. The focus of the programme has been on the support of institutional, legal and administrative reforms, as well as on addressing the social consequences of transition. In the energy sphere, Ukraine benefited from the EU's 'Fuel Gap' programme, aimed to help the country cover its fuel imports after the Chernobyl nuclear plant had been closed at the end of 2000. In addition, Ukraine is receiving financial assistance from the EBRD to construct a shelter for the Chernobyl nuclear reactor (EUR 100 million was earmarked for this purpose in 2001-2004). Over the past ten years, total assistance from the EU to Ukraine amounted to about EUR 1 billion, notably in the form of technical (Tacis), macro-financial and humanitarian aid.

The most recent document underlying relations between Ukraine and the EU is the so-called 'EU-Ukraine Action Plan', elaborated on the eve of the 'orange revolution' and signed immediately after it (in February 2005). It covers the period until 2007 when the current PCA will expire and when Ukraine is planning to apply for associate EU membership. The Plan encompasses six broad areas of co-operation, including political dialogue and reform; economic and social reforms and development; trade, market and regulatory reforms; co-operation on justice and home affairs; transport, power engineering, information society and environment; and human contacts. In the sphere of economy, most notably, it envisaged granting Ukraine a 'market economy' status – a long overdue decision, which was finally announced during the recent (December 2005) EU-Ukraine summit. According to the Plan, the EU also commits itself to supporting Ukraine's WTO membership bid<sup>15</sup> and opens the possibility of free trade negotiations after Ukraine has joined the WTO.<sup>16</sup>

Although EU officials sometimes hail Ukraine's aspirations to become an EU member in the future and the European Parliament has even passed a non-binding resolution explicitly urging the European Commission to offer Ukraine membership prospects, no

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<sup>15</sup> The bilateral protocol on market access between Ukraine and the EU within the framework of Ukraine's WTO membership negotiations was signed back in 2003.

<sup>16</sup> As argued e.g. in Vinhas de Souza et al. (2005), the EU's insisting on Ukraine's (and, for that matter, Russia's) membership in WTO as a *prerequisite* for free trade negotiations contradicts the EU's stance in the case of the NMS and some of the EU candidate countries, which formed a free trade area with the EU long before joining the WTO. In fact, their WTO accession was a *by-product* of adopting the EU's *acquis communautaire*.

concrete dates have been specified so far. Instead, relations with Ukraine are covered by the EU programme 'Wider Europe – Neighbourhood' adopted in March 2003 and encompassing EU relations with the 'European periphery' (including most notably the European CIS countries and the countries of the Mediterranean). Within the framework of that programme, the EU has launched the so-called New Neighbourhood Programmes (NNPs) aimed at avoiding new dividing lines in Europe after the EU enlargement by boosting cross-border cooperation with the 'left-out' countries. Also, while Ukraine has unilaterally abolished its visa requirement for EU citizens, the EU visa regime for Ukrainians remains highly restrictive, pending conclusion of a re-admission agreement. (Although, as the recent experience of Russia has shown, the EU visa regime will most probably remain very restrictive even if a re-admission agreement is concluded.)

### **3.3 Effects of the EU enlargement**

Ukraine was doomed to be affected by the EU enlargement on 1 May 2004, since three of the NMS – Poland, Slovakia and Hungary – were directly bordering Ukraine, whereas another three – Lithuania, Latvia and Estonia – used to have free trade agreements with it (excluding agricultural products in the case of Latvia and Lithuania), which had to be scrapped in the wake of the enlargement. As already noted, the NMS are also quite an important trading partner of Ukraine, especially on the export side, with Hungary and Poland accounting for more than half of Ukraine's exports to the region.

Generally, the Ukrainian authorities welcomed the enlargement, not least due to the country's own EU membership aspirations. In particular, it was anticipated (and, as it turned out, rightly so) that the NMS – especially Poland and Lithuania – would bring new accents to the EU external policies and push for closer cooperation with Ukraine. Indeed, the outburst of interest towards Ukraine on the part of the EU during the 'orange revolution' stood in sharp contrast to the previous neglect and was largely due to lobbying from the NMS. Among the politicians who mediated during the Ukraine's political crisis in those days were *inter alia* Poland's President Kwasniewsky and Lithuania's President Adamkus. And although there has been some disappointment with the still rather sceptical EU stance towards Ukraine, there is no doubt that the EU's interest towards this country has risen dramatically.

However, despite the widely anticipated *political* benefits of the enlargement, the *economic* benefits to Ukraine were less obvious. In particular, the biggest concern in the country was whether its exporters would continue having sufficient access to the NMS markets after the enlargement. In fact, the anticipated economic effect of the enlargement was perceived to be ambiguous.

On the one hand, the *reduction in external import tariffs* in the wake of adopting the EU trade regime by a number of NMS was supposed to encourage Ukraine's exports. As a

result of the enlargement, the external tariffs fell from 6.5% to 4.4% on average (see Table 3.5). This effect was particularly pronounced in the case of Poland, where the average tariff fell by 9.5 percentage points. In Hungary, the average tariff fell by 5.1, and in Slovakia and the Czech Republic by 0.6 percentage points. In reality, the decline in tariffs was even stronger, since a number of Ukrainian export goods qualified for the preferential GSP rates granted by the EU (aluminum being an important exception). Also, since Ukraine's major export commodities to these countries generally had low value-added and were sold at world market prices, which Ukraine as a small supplier was not able to influence, it was expected that the decline in tariffs would not translate into falling prices of exports, so that the full benefit of the tariff reduction would be reaped by the suppliers, i.e. Ukrainian exporters. Tariff reductions apart, the EU accession led to the abolition of quotas

Table 3.5

**Applied import tariffs (on most-favoured-nation basis), in %, by country**

Import market	Year	Average	Agricultural products	Wood, pulp, paper and furniture	Textiles & clothing	Leather, rubber, footwear and travel goods	Metals	Chemicals & photographic supplies
Czech Republic	2001	5.0	10.0	5.1	6.5	4.1	3.7	3.8
Estonia	2002	1.7	12.2	0.0	0.0	0.0	0.0	0.0
Hungary	2001	9.5	25.8	5.4	8.2	6.6	5.0	5.2
Latvia	1999	4.1	11.9	2.2	6.9	3.6	0.8	1.0
Lithuania	2001	3.4	9.8	2.9	9.1	2.8	0.1	0.4
Poland	2001	13.9	41.9	7.9	13.1	11.5	9.7	8.6
Slovak Republic	2001	5.0	9.9	5.1	6.5	4.1	3.7	3.8
Slovenia	2002	9.6	11.3	9.5	12.7	10.6	7.5	7.7
<b>NMS-8 average</b>		<b>6.5</b>	<b>16.6</b>	<b>4.8</b>	<b>7.9</b>	<b>5.4</b>	<b>3.8</b>	<b>3.8</b>
<b>EU-15</b>	2002	<b>4.4</b>	<b>5.9</b>	<b>1.8</b>	<b>8.4</b>	<b>4.2</b>	<b>2.3</b>	<b>4.7</b>
Russia	2001	9.9	8.9	13.1	10.8	8.0	9.5	7.0
Ukraine	2002	7.0	10.8	7.9	6.4	10.3	5.3	6.0

Import market	Year	Transport equipment	Non-electric machinery	Electric machinery	Mineral products, precious stones and metals	Manufactured articles not specified	Fish and fish products	Petroleum
Czech Republic	2001	6.1	3.6	3.5	3.4	3.2	0.1	2.4
Estonia	2002	0.0	0.0	0.0	0.0	0.0	3.1	0.0
Hungary	2001	10.8	8.3	9.7	4.8	7.7	16.7	0.8
Latvia	1999	3.1	0.0	1.0	4.6	3.9	8.4	0.0
Lithuania	2001	0.1	0.2	0.4	1.5	1.3	4.6	2.5
Poland	2001	16.7	8.1	7.6	6.9	10.7	19.9	9.9
Slovak Republic	2001	6.1	3.6	3.5	3.4	3.3	0.1	0.0
Slovenia	2002	11.5	9.2	9.5	5.7	10.6	7.1	2.4
<b>NMS-8 average</b>		<b>6.8</b>	<b>4.1</b>	<b>4.4</b>	<b>3.8</b>	<b>5.1</b>	<b>7.5</b>	<b>2.3</b>
<b>EU-15</b>	2002	<b>4.1</b>	<b>1.7</b>	<b>2.5</b>	<b>2.0</b>	<b>2.5</b>	<b>11.6</b>	<b>3.1</b>
Russia	2001	10.5	9.1	12.2	12.0	13.4	10.5	5.0
Ukraine	2002	7.3	4.7	7.8	8.4	10.1	10.4	0.0

Note: All averages are calculated as simple averages of the ad valorem MFN applied Harmonized System 6-digit duties.

Source: wiiw calculations based on WTO data.

previously applied to selected Ukrainian goods by some accession countries, e.g. by Hungary on textile products and sugar, and by the Czech Republic on coal. Finally – and probably even more importantly – the EU enlargement resulted in a single set of trade rules and administrative procedures applied across a market of some 450 million consumers. Together with the expected acceleration of economic growth in the NMS, this was expected to result in rising demand for imports, also from Ukraine.

On the other hand, in the case of the Baltic states, the average tariff applied to imports from Ukraine rose after the existing free trade agreements had been abandoned. Also, while the *average* import tariffs went down, for some products such as chemicals, fish, oil products and textiles – all of them relevant for Ukraine – they actually went up. Even more importantly, Ukraine's exports to these markets were expected to encounter *higher non-tariff barriers*, including a more restrictive import steel quota, more frequent anti-dumping measures, and tougher certification and sanitary and phytosanitary (SPS) standards. According to some Ukrainian estimates, the total resulting losses incurred by domestic producers in the short run could reach some EUR 300 million per year – corresponding to more than 1% of Ukraine's total exports.<sup>17</sup> These fears prompted the then government to ask the EU for a compensation of resulting losses, although it failed to reach any concessions in the end. (Meanwhile, had Ukraine been a WTO member by that time, it would have been automatically eligible for a compensation of any trade losses.)

As subsequent developments have shown, these fears proved largely unfounded. The available Derzhkomstat (national statistical agency) statistics present evidence that Ukraine's exports to the NMS expanded strongly in most cases. Thus, in 2004 Ukraine's exports to Poland were 28% higher than in 2003 (in US dollar terms), to the Czech Republic and Slovakia 38% higher, to Latvia 41% higher, and to Lithuania even twice as high (Ukraine's total exports grew by nearly 41% over the same period). However, exports to Hungary declined by 5% – reflecting the falling exports of fuels (by 8%), aluminium (by 27%), and electric machinery (by 44%), and exports to Estonia by 23.5% – mostly on account of the 83% decline in the exports of locomotives. Contrary to the pessimistic expectations, the exports of steel to the NMS rose between 50% and 100% in most cases following an upward revision of the EU steel quota allocated for imports from Ukraine.

Meanwhile, the mutual trade in steel was the most controversial issue related to the EU enlargement as it was feared that Ukraine's exports of steel to the new EU members would fall under the previous (EU-15) quota. Generally, the history of trade in ferrous metals between the EU-15 and Ukraine has been characterized by strongly protectionist policies pursued by both sides, forming a sort of 'vicious circle'. While the EU has been attempting to protect domestic steel producers by imposing a quota on imports (*inter alia* on those

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<sup>17</sup> International Centre for Policy Studies (2003b).

from Ukraine), the EU's actual steel production has been effectively undermined by the shortage of ferrous scrap metal, which is an important input in the process and of which Ukraine used to be an important supplier – until the country imposed, in January 2003, a EUR 30 per tonne export duty on scrap metal aimed at keeping its domestic price low to stimulate domestic steel production.

In 2001, the EU and Ukraine elaborated a draft agreement on trade in steel envisaging *inter alia* an expansion of the steel quota to 355 thousand tons. Yet the agreement failed to be signed – allegedly due to the failure of the Ukrainian government to refund VAT to exporters – and in subsequent years the quota was set by the EU unilaterally and revised on an annual basis. In 2003, it stood at 118 thousand tons (although Ukraine's actual steel exports to the EU amounted to only 102 thousand tons, or 86.5% of the quota<sup>18</sup>). For 2004, the steel quota was initially set at 184.5 thousand tons, far below the volume of Ukrainian steel exports to the *enlarged* EU in 2003. However, on 22 November 2004, a new steel agreement between Ukraine and the EU was finally concluded, raising the 2004 quota to 606.8 thousand tons (with the actual shipments of steel amounting to 549.4 thousand tons, or 90.5% of the quota) and the 2005 quota to 703.1 thousand tons. Finally, the most recent bilateral steel agreement between Ukraine and the EU was signed in July 2005, covering the period of 2005-2006. According to the Agreement, the quota was set at 980 thousand tons for 2005 and at 1004.5 thousand tons for 2006,<sup>19</sup> while a further upward revision (to 1430 thousand tons) is conditional on Ukraine lowering its scrap metal export duty. The quota will be abolished altogether once Ukraine joins the WTO (which is likely to happen in 2006).

Apart from the problems related to the steel quota, it was feared that the incidence of anti-dumping measures against imports of Ukrainian chemicals and metals to the NMS might increase following the enlargement. Prior to the enlargement, only Poland and Hungary were applying anti-dumping measures against Ukrainian metals, and these measures were softer than those applied by the EU-15. In addition, it was feared by some that the incidence of anti-dumping measures against Ukrainian products might increase even in the *old* EU countries – and that due to the lobbying efforts of the new member states. Between 1995 and 2004, Ukraine was subject to 51 anti-dumping investigations launched world-wide (8 of them by the EU), ranking 13<sup>th</sup> on this account. The share of Ukraine in the total number of anti-dumping investigations considerably exceeded the country's share in world exports.<sup>20</sup> The latter is hardly surprising, since Ukraine is specializing in exports of goods with relatively low value-added, which typically compete with price (rather than

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<sup>18</sup> *Recycling Today*, 15 January 2004.

<sup>19</sup> 'ES uvelichivaet kvoty na import prokata iz Ukrainy', *Korrespondent.net*, 13 June 2005. By mid-September 2005, the actual shipments of steel stood at just 415.5 thousand tons, or 42.4% of the yearly quota – see 'Carrying out EU-Ukraine Action Plan' (2005).

<sup>20</sup> Pindyuk (2005).

quality) and rank among the often highly protected 'sensitive' sectors. Among Ukraine's export commodities which have been subject to anti-dumping investigations are e.g. sheet metal, metal rods, pipes, chemical fertilizers, and ammonium nitrate.

The widespread application of anti-dumping measures against Ukrainian goods in the EU has been for a long time facilitated by the lack of a 'market economy' status. This means that the pricing of a number of 'sensitive' products originating from Ukraine was often seen by the EU as not reflecting costs of a market environment and therefore distorting fair competition. According to a decision by the EU Council of Ministers passed in October 2000, the 'market economy' status was provided only to individual Ukrainian firms which could prove that they were operating under 'market economy' conditions. The formal requirements which Ukraine had to meet in order to be eligible for a 'market economy' status from the EU included amendments to the bankruptcy legislation (notably, the abolition of the moratorium on bankruptcies in the mining sector), and abandoning the price regulation of some products. After these criteria had been met, the EU Commission announced its decision to grant Ukraine a 'market economy' status during a Ukraine-EU summit in December 2005 – which should make the application of anti-dumping measures against imports from Ukraine in the future much more difficult.<sup>21</sup>

#### **4 Ukraine, Russia and the Common Economic Space**

*by Vasily Astrov*

The previous section was focusing exclusively on Ukraine's trade relations with the (enlarged) EU and the effects of the EU enlargement. However, unlike the NMS – whose trade is dominated by the intra-EU flows, - Ukraine is also trading extensively with Russia and other Commonwealth of Independent States (CIS) countries. On the one hand, this is a legacy of the common Soviet past; but it is also a reflection of both the relatively high competitiveness of the CIS countries' products in each other's markets and the relatively little volume of western FDI attracted by these countries so far. Besides, Ukraine's relations with Russia and other CIS countries may deepen further as a result of the recent efforts aimed at a partial re-integration of the former Soviet space.

This section is focusing on Ukraine's relations with the CIS countries and particularly with Russia, given the latter's obvious economic and political dominance in the region. After analysing the patterns of Ukraine's trade with Russia – largely following the same methodology applied in section 3 – we focus on the recently signed Common Economic

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<sup>21</sup> A decision on a 'market economy status' from the United States is still pending, as is the abolition of the so-called 'Jackson-Vanik amendment' imposed in 1974 and still formally applying to some of the successor states of the former Soviet Union.

Space (CES) agreement between Russia, Ukraine, Belarus and Kazakhstan, and assess its possible economic implications.

#### 4.1 Patterns of trade

Despite the substantial decline in trade between Russia and Ukraine following the collapse of the Soviet Union, the economic interdependence between the two countries is still pronounced. For Ukraine, Russia is the biggest single trading partner in terms of both exports (18% in 2004) and particularly imports (40.7%), reflecting the geographical and cultural proximity, but also the common history. In addition, Russia – together with Cyprus, which represents, at least partly, Russian capital that fled the country over the years of transition – is an important investor in Ukraine. Predictably, for Russia – which is three times bigger than Ukraine in terms of population and nine times bigger in terms of GDP – trade with Ukraine is not as important. In 2004, the latter accounted for only 5.9% of Russian exports (ranking sixth) and 8% of its imports (ranking third). However, Ukraine – along with Belarus – is important for Russia as a transit country, in particular for exports of oil and natural gas to Europe. This is particularly true for the Russian exports of natural gas, nearly 90% of which is shipped via Ukraine.

Over the post-Soviet years, Ukraine has been invariably running a *huge deficit in its trade with Russia*. In 2004, the latter stood at some USD 5.6 billion (according to the Derzhkomstat statistics), with the value of imports exceeding twice the value of Ukraine's exports to Russia. This deficit is largely structural, as the mineral fuels account for 64% of total Ukrainian *imports* from Russia (see Table 4.1). The reason is that Ukraine does not possess sufficient reserves of fossil fuels of its own,<sup>22</sup> while it simultaneously has an extremely energy-intensive economy. The latter is essentially a structural feature as well, resulting from:

- the legacy of the Soviet central planning system, which built up in Ukraine an extensive heavy industrial database,
- the under-pricing of energy in the Soviet times, and
- the very limited scope of economic restructuring (which could have involved *inter alia* an implementation of energy-saving technologies) so far.

To illustrate the problem, Table 4.2 presents the results of author's earlier calculations demonstrating the dependence of Ukraine and some other countries on oil. Although the share of oil in Ukraine's primary energy consumption (i.e. the energy consumption in refineries, heating plants, and electric power stations) stands at a mere 11.5%, the oil

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<sup>22</sup> The coal deposits of Donbass in Eastern Ukraine are largely depleted and are increasingly difficult to extract, making the branch dependent on extensive government subsidies in the tune of USD 1 billion annually.



Table 4.1

## Ukraine's trade with Russia, 2004

HS	Total	Exports			Imports		
		USD th	2004/2003 %	% of total	USD th	2004/2003 %	% of total
	<b>Total</b>	<b>5886240</b>	<b>136.5</b>	<b>100.0</b>	<b>12127950</b>	<b>140.3</b>	<b>100.0</b>
01	Live animals	610	1250	0.0	145	230	0.0
02	Meat and edible meat offal	177228	73.4	3.0	72	69.0	0.0
03	Fish & crustacean, mollusc & other	1492	170	0.0	3181	210	0.0
04	Dairy prod; birds' eggs; natural honey; edible	304021	180	5.2	21318	112.0	0.2
05	Products of animal origin, nes or included	588	65.2	0.0	336	73.3	0.0
06	Live tree & other plant; bulb, root; cut flowers	229	390	0.0	.	.	0.0
07	Edible vegetables and certain roots and tubers	1080	170	0.0	309	160	0.0
08	Edible fruit and nuts; peel of citrus fruit	1290	95.5	0.0	170	111.9	0.0
09	Coffee, tea, matn and spices.	168	118.1	0.0	21333	290	0.2
10	Cereals	63687	290	1.1	33007	25.2	0.3
11	Prod.mill.indust; malt; starches;	5168	96.0	0.1	4233	16.0	0.0
12	Oil seed, oleagi fruits; miscell grain, seed	2535	280	0.0	197	23.5	0.0
13	Lac; gums, resins & other vegetable saps	85	32.4	0.0	4	.	0.0
14	Vegetable plaiting materials; vegetable products	19	3140	0.0	3	.	0.0
15	Animal/veg fats & oils & their cleavage products	81324	75.5	1.4	4981	180	0.0
16	Prep of meat, fish or crustaceans, molluscs	21872	128.9	0.4	15109	210	0.1
17	Sugars and sugar confectionery.	26954	49.6	0.5	4338	33.4	0.0
18	Cocoa and cocoa preparations.	126397	118.5	2.2	30570	170	0.3
19	Prep.of cereal, flour, starch/milk; pastrycook	36582	170	0.6	31887	170	0.3
20	Prep of vegetable, fruit, nuts or other parts	52693	142.1	0.9	7035	129.0	0.1
21	Miscellaneous edible preparations.	19948	43.0	0.3	30858	250	0.3
22	Beverages, spirits and vinegar.	188282	180	3.2	20111	108.1	0.2
23	Residues & waste from the food industries	4433	200	0.1	15774	180	0,13
24	Tobacco and manufactured tobacco substitutes	15126	73.4	0.3	41654	72.0	0.3
25	Salt; sulphur; earth & ston; plastering mat	694601	119.2	1.2	64212	148.5	0.5
26	Ores, slag and ash.	21689	119.8	0.4	132174	68.4	1.1
27	Mineral fuels, oils & product of their distillation	87490	270	1.5	7739481	143.2	63.8
28	Inorgn chem; compds of prec mtl, radioactive elements	238572	132.7	4.1	51642	170	0.4
29	Organic chemicals.	34878	122.9	0.6	137590	180	1.1
30	Pharmaceutical products.	18425	93.4	0.3	26822	104.7	0.2

Table 4.1 contd.

Table 4.1 (contd.)

		Exports			Imports		
	USD th	2004/2003 %	% of total	USD th	2004/2003 %	% of total	
31	Fertilizers	764	94.6	0.0	48360	109.2	0.4
32	Tanning/dyeing extract; tannins & derivs	52463	115.5	0.9	14144	150	0.1
33	Essential oils & resinoids; perf.	8297	87.4	0.1	44499	128.0	0.4
34	Soap, organic surface-active agents	14790	136.2	0.3	46224	135.9	0.4
35	Albuminoidal subs; modified starches; glues	1755	90.0	0.0	1747	250	0.0
36	Explosives; pyrotechnic prod; matches	179	124.9	0.0	7601	144.4	0.1
37	Photographic or cinematographic goods	114	61.2	0.0	3024	160	0.0
38	Miscellaneous chemical products.	13464	63.3	0.2	29602	126.0	0.2
39	Plastics and articles thereof.	95402	145.4	1.6	127444	129.8	0.1
40	Rubber and articles thereof.	59612	128.0	1.0	190876	142.2	1.6
41	Raw hides and skins (other than furskins)	438	50.4	0.0	4140	141.6	0.0
42	Articles of leather; saddlery/harness	516	320	0.0	167	78.0	0,00
43	Furskins and artificial fur; manuf	1199	170	0.0	176	550	0,00
44	Wood and articles of wood; wood charcoal	15300	144.8	0.3	23153	200	0,19
45	Cork and articles of cork.	20	190	0.0	93	108.8	0,00
46	Manufactures of straw, esparto/other plaiting	6	500	0.0	.	.	.
47	Pulp of wood/of other fibrous cellulosic material	123	.	0.0	47157	109.0	0.4
48	Paper & paperboard; art of paper pulp	241124	108.3	4.1	158233	145.6	1.3
49	Printed books, newspapers, pictures	18024	124.1	0.3	19829	128.3	0.2
50	Silk						
51	Wool, fine/coarse animal hair, horsehair	34	18.9	0.0	4634	86.8	0.0
52	Cotton	4871	190	0.1	33730	99.0	0.3
53	Other vegetable textile fibres; paper yarn	704	40.5	0,01	2066	110.0	0.0
54	Man-made filaments	7249	240	0.1	4269	120.0	0.0
55	Man-made staple fibres	885	320	0.0	3195	91.4	0.0
56	Wadding, felt & nonwoven; yarns; twine	6208	120.2	0.1	9369	136.1	0.1
57	Carpets and other textile floor coverings	12173	160	0.2	15	10460	0.0
58	Special woven fab; tufted tex fab; lace	82	79.2	0.0	252	220	0.0
59	Impregnated, coated, cover/laminated textile	5067	86.6	0.1	9002	123,15	0.1
60	Knitted or crocheted fabrics.	1792	143.2	0.0	252	410	0.0
61	Art of apparel & clothing access, knitted	2501	190	0.0	462	113,89	0.0
62	Art of apparel & clothing access, not knitted	2936	160	0.1	12656	123.3	0,1
63	Other made up textile articles; sets	5190	160	0.1	1372	105.3	0.0

Table 4.1 contd.

Table 4.1 (contd.)

	USD th	Exports		USD th	Imports		
		2004/2003 %	% of total		2004/2003 %	% of total	
64	Footwear, gaiters and the like; parts	5603	103.7	0.1	2691	88.6	0.0
65	Headgear and parts thereof.	402	82.2	0.0	120	71.7	0.0
66	Umbrellas, walking-sticks, seat-sticks, whips	975	132.9	0.0	2	1590	0.0
67	Prepr feathers & down; arti flower;	2	153.0	0.0	.	.	.
68	Art of stone, plaster, cement, asbestos	17135	103.0	0.3	42675	180	0.4
69	Ceramic products.	46735	134.5	0.8	25288	105.3	0.2
70	Glass and glassware.	32277	115.9	0.6	33569	150	0.3
71	Natural, cultured pearls, precious stones and metals						
72	Iron and steel.	998216	170	17.0	526311	170	4.3
73	Articles of iron or steel.	481887	120.8	8.2	101507	170	0.8
74	Copper and articles thereof.	29434	190	0.5	38968	132.6	0,32
75	Nickel and articles thereof.	1473	100,87	0.0	61547	141.1	0,51
76	Aluminium and articles thereof.	66745	126.8	1.1	58172	141.1	0.5
78	Lead and articles thereof.	3173	111.1	0.1	594	6790	0
79	Zinc and articles thereof.	16	67.9	0.0	11332	143.5	0.09
80	Tin and articles thereof.	0	58.1	0.0	243	560	0.0
81	Other base metals; cermets; articles thereof	10974	101.5	0.2	14521	0.7	0,12
82	Tool, implement, cutlery, spoon & fork	7233	118.9	0.1	23524	99.4	0.2
83	Miscellaneous articles of base metal	18450	160	0.3	9094	136,96	0,07
84	Nuclear reactors, boilers, mchy & mech appliances	826632	122.1	14.0	885508	150	7.3
85	Electrical mchy equip parts thereof	280090	138.8	4.8	169831	128.5	1.4
86	Railw/tramw locom, rolling-stock & parts thereof	564754	240	9.6	150237	144.9	1,24
87	Vehicles o/t railw/tramw roll-stock	118494	138.1	2.0	496885	145.1	4.1
88	Aircraft, spacecraft, and parts thereof	21061	43.9	0.4	22465	210	0.2
89	Ships, boats and floating structures	11868	550	0.2	5190	590	0.0
90	Optical, photo, cine, meas, checking	53379	135.6	0.9	90495	170	0.8
91	Clocks and watches and parts thereof	2	440	0.0	1781	125.9	0.0
92	Musical instruments	147	82.4	0.0	16	.	0.0
93	Arms and ammunition						
94	Furniture; bedding, mattress, matt support	45273	125.6	0.8	19706	180	0.2
95	Toys, games & sports requisites; parts	6476	160	0.1	2081	70.9	0.0
96	Miscellaneous manufactured articles	372	69.1	0.0	357	143.9	0
97	Works of art, collectors' pieces and antiques	18	170	0.0	179	310	0
98	Goods in ports	4646	160	0.1	14382	240	0.1
99	Miscellaneous	56691	148.4	1.0	32340	230	0.3

Source: Derzhkomstat.

Table 4.2

**Selected indicators of oil dependence of Ukraine and selected countries in 2000**

	Share of oil in primary energy consumption, %	Oil intensity of GDP (barrels per 1 mn dollar of GDP at PPP)	Oil intensity of GDP (barrels per 1 mn dollar of GDP at ER)
Ukraine	11.5	657	4215
Russia	18.6	954	3524
Poland	24.4	438	1024
Austria	38.9	438	508
Germany	41.0	476	543
Japan	51.5	614	425
USA	38.9	730	730

Source: Astrov (2003).

intensity of its GDP (converted at exchange rates) is by international standards very high – the combined outcome of the technical inefficiency and the weakness of Ukraine’s currency. Given the high dependence of Ukraine’s economy on imported energy carriers, Russia is an attractive energy supplier – and that not only because of the geographical proximity, but also due to the fact that for a long time Russia has been supplying energy to Ukraine at prices far below the world market prices, particularly as far as natural gas is concerned (although the recent developments suggest that this is finally changing now – more on that, see section 4.3).

The structure of Ukrainian exports to Russia is more diversified, the biggest export items being machinery and equipment (particularly railway tank cars and gas turbines), ferrous metals and meat. Noteworthy, while metals and food items also feature prominently in Ukraine’s exports to the European markets (see section 3), the exports of machinery and equipment are largely confined to Russia, although – as pointed out earlier – the Baltic states reveal certain similarities in this respect. For a number of machinery and equipment items, the share of Russia as an export destination stands at over 50%. However, they are generally technologically inferior and often serve as spare parts for Russia’s production capacities installed in the Soviet times.

The pattern of Ukraine’s revealed comparative advantages in trade with Russia (see Table A10 of the Appendix) is generally more beneficial than with the EU-15 and the NMS. Selected items of machinery and equipment, as well as some agricultural products have a clear comparative advantage in the Russian market. Also, the extent of the intra-industry trade in Ukraine’s trade with Russia (the Grubel-Lloyd index standing at 0.35, Table 3.3) is higher than with the EU countries (except Poland), pointing to the bigger similarities in the structure of productive factor endowments of the two countries.

Some of Ukraine's main export items face high tariff and particularly non-tariff barriers to entering the Russian market (the latter is also true for Ukraine's imports from Russia). Although the two countries have had since June 1993 a formal free trade agreement, a number of essential products – including sugar, tobacco, spirits, confectionery, and metals – were exempted. Also, in May 2001, Russia imposed an import quota on Ukrainian pipes.<sup>23</sup> Besides, a major point of contention prior to mid-2001 was the Russian policy to charge VAT and excises on its exports to the CIS countries (including Ukraine) according to the 'country of origin' principle.<sup>24</sup> Since Ukraine shifted unilaterally to the 'country of destination' principle already in the mid-1990s, Ukraine's exports to Russia found themselves *de facto* free of any indirect taxation, leading to a number of problems in bilateral trade relations. By contrast, the problem nowadays appears to be rather the opposite: Ukrainian exporters often face considerable delays in the reimbursement of domestically charged VAT. (The latter is a consequence of the wide proliferation of 'tax optimizing' schemes involving fake export contracts aimed at evading VAT.)

#### **4.2 CES: the terms of the Agreement**

The economic links between Ukraine and Russia may strengthen as a result of the 'Agreement on the Formation of a Common Economic Space (CES)' signed between Ukraine, Russia, Belarus and Kazakhstan on September 19, 2003. The Agreement (together with the enclosed CES Concept) addresses the following issues:

- the creation of a free trade area (FTA) without exemptions and limitations, accompanied by an adjustment in the relevant national legislations, particularly in the areas of tax, competition and state support policies;
- the unification of technical standards, sanitary and phytosanitary norms;
- the harmonization of macroeconomic policy;
- the provision of 'four freedoms' (the free movement of goods, services, labour and capital) across the CES; and
- the uniform regulation of 'natural monopolies' (energy infrastructure, railways, and telecommunications), including, most importantly, the equalization of tariffs and the provision of free access to their services to all member states.

To assist the integration process, the Agreement envisages the creation of inter-state bodies whose structure is to be modified in line with the stage of integration. The task of CES coordination is assigned to the Heads of State Council, where each country has one vote and decisions are made on a consensus basis. In addition, a Single Regulatory Body

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<sup>23</sup> Obozrevatel.com, 25 September 2003.

<sup>24</sup> Andrianov (2003).

is set up, to which the member states delegate part of their powers. Within the Body, the votes of individual countries are weighted according to their 'economic potential', thus giving Russia a decisive influence. The decisions of the Body are obligatory for all member states; however, the latter may appeal to the Heads of State Council to revise the decision of the former. Finally, the Agreement envisages a 'compensation mechanism' to those countries whose economy might be adversely affected by the decisions of the Body. Also, the Agreement stipulates a coordination of the WTO accession between the CES member states. (None of the four participating countries is a WTO member at the moment.<sup>25</sup>) In particular, the CES member states acceding to the WTO earlier than others commit themselves to promoting a rapid accession of the remaining countries, as well as to refraining from putting additional demands on them.

Whereas some of the terms of the CES agreement are clear-cut, others seem to have a rather vague meaning (such as the 'harmonization' of macroeconomic policy) or indeed repeat themselves (e.g., the provision of the 'four freedoms' automatically implies free trade, which is nevertheless the subject of a separate item). Generally speaking, the provision of the 'four freedoms' is the most challenging part of the Agreement and corresponds to a rather advanced stage of integration. Although during the early stages of CES negotiations Russia and Kazakhstan were also advocating a subsequent introduction of a single currency,<sup>26</sup> these suggestions were dropped later on, and it seems extremely unlikely that the participating states might agree on a common currency in the foreseeable future.<sup>27</sup>

Needless to say, a lot will depend on how far the (re-)integration between the four post-Soviet states will actually go. In this context, it might be interesting to look at the recent CIS experience, which has been so far not particularly encouraging (see Box 1).

The participation of Ukraine in the Agreement back in 2003 was perceived as truly 'revolutionary', because until then the country had been consistently abstaining from closer economic co-operation with Russia, given its stated goal of ultimate integration into the EU structures. At that time, the sudden switch in priorities largely reflected Ukraine's disappointment with the EU which was reluctant to give Ukraine the 'carrot' of a possible EU membership. Still, the signature of President Kuchma under the Agreement proved domestically a highly controversial issue – and that even despite the clause that the terms of the Agreement are only binding for Ukraine as long as they 'do not contradict the

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<sup>25</sup> Among the CIS countries, only four – Georgia, Armenia, Moldova and Kyrgyzstan – have become WTO members so far.

<sup>26</sup> Earlier, Kazakhstan was in favour of introducing a common currency in the countries of the Eurasian Economic Community by 2008.

<sup>27</sup> The case of the Russia-Belarus Union State is a possible exception.

Box 1

### **CES against the background of previous integration attempts**

Generally speaking, the track record of the re-integration efforts within the Commonwealth of Independent States (CIS) has so far been rather confusing and characterized by both poor implementation and increasing fragmentation. A treaty creating a common economic space across the CIS (excluding Ukraine, which opted for associate membership) was signed back in 1993, followed by the formation of the International Economic Committee in October 1994, the International Currency Committee in May 1995, and the Council on Small Entrepreneurship Promotion in January 1997. In total, since 1993 over 80 CIS-wide agreements have been concluded, aimed at further promotion of intra-CIS integration, but they largely remained on paper.<sup>28</sup> Even the CIS-wide visa-free area, which had been agreed upon in the early 1990s, started breaking apart with the exclusion of Turkmenistan and Georgia, largely for political reasons. Still, some of the agreements initiated on a smaller scale proved to be more successful.

Disregarding the special case of the Russia-Belarus Union State, the most advanced re-integration attempt has been the creation, in January 1995, of a Customs Union between Russia, Belarus and Kazakhstan, joined later by Kyrgyzstan and Tajikistan and renamed in October 2000 into the Eurasian Economic Community (EEC), with the stated ultimate goal of creating a single economic space. However, despite some trade liberalization between the member states, the block does not yet operate as a proper FTA, and its members continue to have different average import tariffs, standing at 12.2% in Belarus, 10.7% in Russia, 8% in Tajikistan, 7.8% in Kazakhstan, and 5.1% in Kyrgyzstan.<sup>29</sup> Also, the trade policies of some of the member states since the Customs Union formation have been often far from being conform to the principles of free trade. This was particularly the case after the Russian crisis in 1998, when a dramatic devaluation of the rouble brought about a marked improvement in the country's competitiveness and urged Kazakhstan to impose a temporary ban on the imports of food products from Russia.<sup>30</sup>

Other regional arrangements on the post-Soviet space which have not advanced as much include the GUAM (including Georgia, Ukraine, Azerbaijan, Moldova and – until recently – Uzbekistan), largely conceived to ensure the energy exports to Europe by circumventing the Russian territory, and the Central Asian Economic Community (consisting of the Central Asian countries except Turkmenistan), which merged in 2005 with the Eurasian Economic Community.

The simultaneous existence of the Common Economic Space and the Eurasian Economic Community is somewhat of a puzzle. The two regional arrangements have very similar formal objectives, but overlap only partially: Ukraine is a member of the CES, but not of the EEC, whereas in the case of Kyrgyzstan and Tajikistan it is the other way around. Obviously, this may only be an obstacle if the participating countries are indeed planning to implement in real life what they have agreed upon on paper. So far, this has seldom been the case, and there is no immediate reason to believe that this will drastically change in the future. Besides, the great scope of flexibility provided for in the CES agreement may be instrumental to answering the above question as well. In particular, the Agreement allows for the differences in both the depth and the speed of integration – a provision which was reportedly crucial to ensure Ukraine's participation.

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<sup>28</sup> Shumskiy (2003).

<sup>29</sup> As of 2002 – see Elborgh-Woytek (2003).

<sup>30</sup> UN/ECE (2003).

country's constitution and its existing international treaties'. In particular, Ukraine's participation in the Agreement was subject to harsh criticism by Viktor Yushchenko and Yuliya Tymoshenko during the presidential campaign of autumn 2004. However, their position on the issue softened subsequently and gradually converged to the position of the previous (Kuchma) regime. This position also seems to reflect the present consensus in the country: while Ukraine is strongly interested in establishing a free trade area within the framework of the CES, it is reluctant to enter further stages of integration – particularly those involving an establishment of supra-national bodies.

The CES Agreement signed in September 2003 is a framework agreement which is supplemented by 93 sectoral agreements. Their elaboration has been assigned to the so-called High Level Group encompassing the government officials of the participating countries. By August 2005, when the most recent CES summit was held in Kazan' (Russia), all 93 agreements in question had been reportedly drafted.<sup>31</sup> However, so far Ukraine has agreed to participate in only 40 of them,<sup>32</sup> and Ukraine's position outlined in the previous paragraph is constantly subject to criticism from other CES participants, notably Russia – which insists that a free-trade area without a common external tariff (i.e. without a customs union) is unlikely to work properly, since any differences in external trade regime can be used as loopholes for the third countries' exporters.<sup>33</sup>

Simultaneously, Ukraine has been trying to pursue the strategy of trade liberalization on a bilateral (rather than multilateral) basis with Russia. In June 2005, Ukraine refused to participate in a CIS-wide agreement on abolishing trade restrictions and opted for a bilateral agreement with Russia instead. A Russia-Ukraine bilateral protocol, according to which all existing exemptions and limitations to free trade would be gradually phased out by 2009, was reportedly supposed to be signed in November 2005 during the visit of the Russian prime-minister Fradkov to Kiev. In particular, according to the draft protocol, trade in alcohol (spirits) would be liberalized in 2007, and that in sugar in 2009.<sup>34</sup> However, the visit has been cancelled (due to the inability of the two sides to agree on natural gas prices for 2006), and the protocol's prospects remain as of now uncertain.

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<sup>31</sup> 'Rossiya ne vidit Ukrainu v EEP', Korrespondent.net, 29 July 2005.

<sup>32</sup> 'Yekhanurov soglasen na 40 iz 93 soglasheniy po EEP', Korrespondent.net, 22 November 2005.

<sup>33</sup> This has been the case, for instance, with the imports of textiles into the Russia-Belarus Union State from the third countries when the importers of textiles took advantage of the lower import duties in Belarus for their subsequent shipment to Russia.

<sup>34</sup> 'Ukraina i Rossiya mogut torgovat' svobodno bez sozdaniya EEP', Korrespondent.net, 22 November 2005.



### 4.3 CES consequences

#### 4.3.1 General assessment

While there are serious doubts with respect to how far the actual (re-)integration on the post-Soviet space may go, at least a free trade area (FTA) between the participating countries may well be implemented. The possible economic impact of such an FTA clearly depends on the extent to which these countries are already trading with each other. From Table 4.3, which presents the trade flows in 2004 among the countries which signed the CES Agreement, some interesting observations can be made.

Table 4.3

#### Trade flows between the CES members, 2004

	Russia		Belarus		Ukraine		Kazakhstan	
	USD mn	%	USD mn	%	USD mn	%	USD mn	%
<b>Exports of:</b>								
<b>To:</b>								
Russia	.	.	6485	47.1	5886	18.0	2838	14.1
Belarus	11219	6.2	.	.	551	1.7	18	0.1
Ukraine	10769	5.9	540	3.9	.	.	278	1.4
Kazakhstan	4658	2.6	121	0.9	623	1.9	.	.
<b>Total CES</b>	<b>26646</b>	<b>14.7</b>	<b>7146</b>	<b>51.9</b>	<b>7060</b>	<b>21.6</b>	<b>3134</b>	<b>15.6</b>
<b>Total</b>	<b>181710</b>	<b>100.0</b>	<b>13774</b>	<b>100.0</b>	<b>32666</b>	<b>100.0</b>	<b>20096</b>	<b>100.0</b>
<b>Imports of:</b>								
<b>From:</b>								
Russia	.	.	11219	68.0	12128	41.8	4813	37.7
Belarus	6485	8.6	.	.	545	1.9	144	1.1
Ukraine	6097	8.1	545	3.3	.	.	723	5.7
Kazakhstan	3480	4.6	24	0.1	395	1.4	.	.
<b>Total CES</b>	<b>16062</b>	<b>21.2</b>	<b>11788</b>	<b>71.5</b>	<b>13068</b>	<b>45.1</b>	<b>5680</b>	<b>44.4</b>
<b>Total</b>	<b>75603</b>	<b>100.0</b>	<b>16491</b>	<b>100.0</b>	<b>28997</b>	<b>100.0</b>	<b>12781</b>	<b>100.0</b>
<b>Trade balance of:</b>								
<b>With:</b>								
Russia	.		-4734		-6242		-1975	
Belarus	4734		.		6		-126	
Ukraine	4672		-5		.		-445	
Kazakhstan	1178		97		228		.	
<b>Total CES</b>	<b>10584</b>		<b>-4642</b>		<b>-6008</b>		<b>-2546</b>	
<b>Total</b>	<b>106107</b>		<b>-2717</b>		<b>3669</b>		<b>7315</b>	

Source: CIS Statistical Committee, own calculations.

First, the importance of the CES as a trading partner is highly uneven and varies a lot by country. On the exports side, the share of the CES ranges from 14.7% in Russia to 51.9% in Belarus. Also, it seems that the differences in shares can only be partly attributed to the differences in the country size. Thus, Kazakhstan, which in economic terms (GDP) is not much bigger than Belarus, sells to the CES just 15.6% of its exports.

Second, for *all* countries, the importance of the CES as a source of imports is much higher than its role as an export destination. This is particularly the case with Ukraine and Kazakhstan, where the CES shares on the imports side are more than double the size of those on the exports side, and exceed 40% for both countries. True, in the case of energy-importing Ukraine (and Belarus), one could argue that this might be due to the relatively beneficial terms offered by Russia on its energy exports to these countries (more on that, see below). However, the ‘energy argument’ clearly does not apply to the energy-exporting Russia and Kazakhstan. More generally, it seems that while poverty and depressed demand in the post-Soviet countries force exporters to turn to ‘richer’ markets, thus explaining the low share of the CES in the individual countries’ exports, the much bigger role of the CES in their imports might be explained by the relatively high competitiveness of their products due to their (still) weak currencies. For instance, with the average wage of just half the Russian level, Ukraine is generally a competitive supplier in the Russian market.

The possible implications of the above observations are as follows. First, closer integration, as envisaged in the framework CES Agreement, will be a bigger economic shock for those countries whose trade with the CES partners is already (or, looking into the recent past, it would perhaps be better to say – still) quite extensive. Thus, in narrow economic terms, the relative impact on Russia is likely to be the smallest,<sup>35</sup> while in the case of e.g. Ukraine it will be much higher. Second, on average, importers (and consumers) of these countries will probably benefit more from integration than exporters, at least initially – provided that the lower trade barriers translate into a lower price of imported goods. (The next section focusing on the energy trade between Russia and Ukraine presents evidence that the latter may be an overly strong assumption.) Probably even more importantly, in the longer perspective, given the relatively strong current performance and the favourable growth outlook for Russia’s economy (primarily due to the expectations of the persisting high oil prices), access to the Russian market may prove crucial to the growth prospects of other CES countries such as Belarus or Ukraine.

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<sup>35</sup> Russia’s interest in the CES appears to be driven primarily by geo-strategic considerations, including the safety of its energy exports routes.

### 4.3.2 Energy trade

So far, the most visible achievement within the framework of the CES implementation has been a switch to the uniform 'country of destination' principle of indirect taxation in mutual trade from 1 January 2005. For most participating countries – with the exception of Belarus – the move only applied to energy trade, since all other items had been traded according to the 'country of destination' principle already since mid-2001. Prior to January 2005, the Russian policy of levying VAT on fuels shipped to Ukraine according to the principle of 'country of origin' effectively made them more expensive for the Ukrainian side, so that the country hoped to take advantage of lower energy prices as a result of the move.

The abolition of VAT taxation of exported energy carriers has reportedly cost the Russian federal budget some USD 800 million. In turn, and not surprisingly, the imposition of a 20% VAT on the energy imports by Ukraine has helped boost the country's tax revenues. (Another important factor has been the government's policy to limit the reimbursement of VAT to exporters, largely due to the wide incidence of fake export contracts). As a result, in 2005 the VAT collection of Ukraine's consolidated budget was up 78% in real terms, despite a modest 2.4% real GDP growth that year. However, the impact on Ukrainian consumers proved much more ambiguous.

In particular, despite the abolition of VAT taxation on the Russian side, the price of *oil* shipped to Ukraine has not declined, but, on the contrary, risen, as Russia has reportedly taken offsetting measures by raising the resource extraction royalty and the export duty on oil.<sup>36</sup> More generally, the increase has been in line with the global trend of the rising oil prices: although in previous years Ukraine used to buy Russian oil at prices far below the world market prices, by now they have largely converged. Most importantly, the price of oil shipped to Ukraine contains Russia's export duty, which is set depending on the level of the world market price and is revised on a regular basis (most recently to USD 102 per tonne, or around USD 15 per barrel). In addition, the increase in the oil price paid on the Russian border was further aggravated by the imposition of the Ukrainian VAT and of higher excise taxes, resulting in domestic oil products prices surging by some 50% within just a few weeks in March-April 2005. In response to the soaring prices, the government of Yuliya Tymoshenko accused the Russian oil companies, which dominate Ukraine's oil products market, of a 'conspiracy' and suggested that the security of their assets in Ukraine amidst a large-scale reprivatization campaign could be conditional on their pricing behaviour in the oil products market. Also, in order to contain the price increase, the Tymoshenko government imposed in April 2005 a cap on the wholesale prices of fuels and a 13% retail margin cap. The outcome of the government measures were widespread fuels shortages, forcing the government to eventually give up the administrative price-setting and lower the excise taxes and import duties on oil products instead. However, as a result

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<sup>36</sup> Shiells (2005).

of this government-engineered 'gasoline crisis', the reputation of the government and particularly of Ms Tymoshenko has suffered and became one of the arguments for her dismissal later the same year.

Unlike the price of oil, the price of *natural gas* imported to Ukraine from Russia did not increase at that time – although it did not decline either, as could have been expected from the abolition of VAT taxation on the Russian side. In 2005, this price stood at USD 50 per thousand cubic meters (th cm) for a half of the gas supplies to Ukraine within the framework of a long-standing barter arrangement (in exchange for the transit of Russian gas exports to Europe across Ukrainian territory),<sup>37</sup> and USD 80 per th cm for the second half, which was paid in 'cash'. In both cases, the price was far below the world market price (some USD 160 per th cm) – though above the Russian domestic price (USD 30 per th cm). The gap between the price paid by Ukraine and the world market price can be only partly explained by the peculiarities of taxation on the Russian side: Russia levies an excise tax on the exports of natural gas, which stands at 30% for exports to the non-CIS countries, but only at 15% for shipments to the CIS.<sup>38</sup> The real issue is that the price of natural gas sold by Russia to its CIS neighbours – often referred to as the 'near abroad' – tends to be politically rather than economically motivated and is therefore arbitrary. The natural gas shipments from Russia to Ukraine and elsewhere are dominated by the Russian gas monopolist *Gazprom*, which has been always *de facto* – and recently has become also *de jure* – controlled by the Russian state. Bearing that in mind, it is little surprise that the price of Russian natural gas shipped to Ukraine has failed to reflect the abolition of VAT taxation on the Russian side in January 2005.

Summarizing, the shift to the 'country of destination' principle of VAT taxation in energy trade between Ukraine and Russia in January 2005 did not result in falling prices, although it considerably boosted Ukraine's budget revenues. The price of imported oil has actually increased, and that of gas has not changed. Still, it can be argued that, at least as far as oil is concerned, had it not been for the VAT abolition on the Russian side, the price increase would have turned even higher. Ukraine's import prices for both oil and gas continue to stay much above Russian domestic prices – primarily due to the Russia's export duty on oil, the excise duty on exported gas, and the discrimination of Russian transport tariffs between domestic and export shipments. Theoretically, the abolition of all duties and the unification of tariffs (including those for transportation) envisaged by the CES Agreement

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<sup>37</sup> Strictly speaking, both the gas price and the transit fees under this barter arrangement are accounting prices. This is clearly visible from the recent (December 2005) difficult negotiations between Russia and Ukraine over the terms of natural gas deliveries to Ukraine in 2006. Any increase in the price of gas charged by Russia will be at least partly offset by an upward adjustment of the transit fees, although Russia can also revise its transit fees for the gas shipped to Ukraine from Turkmenistan – Ukraine's second important energy supplier.

<sup>38</sup> Shiells (2005).

should reduce the gap in the energy prices between Russia and Ukraine.<sup>39</sup> However, it seems that this is only possible in case the more advanced stages of integration within the framework of the CES are implemented. (Belarus, which enjoys domestic Russian gas prices, appears to be a good example in this respect). Any integration not going beyond the stage of a free trade area – as aspired by Ukraine – is unlikely to result in price convergence for energy between Ukraine and Russia.

## **5 Ukraine's agriculture and agro-food trade**

*by Zdenek Lukas and Josef Pöschl*

### **5.1 General trends**

Agriculture has a large potential in Ukraine, thanks to favourable natural conditions. To some extent, this becomes visible from the production data of the past decades. Prior to 1991, agriculture was one of the most important sectors of the economy and an important source of revenues stemming from shipments to other parts of the Soviet Union. Then, in the course of the breakdown of the former economic system, economic activities declined continuously over the years. This was true for all segments of the economy. The contribution of agriculture to GDP was about one quarter before the start of transformation, but merely around one eighth in 2004. Ukraine experienced a more severe and profound transformation crisis than did Russia or the Central European transition countries. Only towards the end of the 1990s, when Russia's economy started recovering, Ukraine experienced a reversal of the economy's downward trend. Starting from an extremely low base, gross agricultural production started to grow as well. It grew by 20% in 2004, a year of rich grain harvests in most parts of Europe. Even with this favourable result, gross agricultural production was still 36% below the level of 1990.

In the case of Ukraine, transformation meant a massive breakdown of networks on the input as well as on the output side of practically all enterprises in the economy. In the first years of the emerging market economy, enterprises found it extremely difficult to get paid for output delivered, and as a consequence they had no funds to pay for inputs, if they received some at all. This was also true for agricultural enterprises. Under these conditions the big farms, in the initial phase of the transition still organized as either kolkhozes or sovkhazes<sup>40</sup>, became almost unmanageable and their production came close to a complete collapse. Survival was much easier for household plots: they were much less dependent on markets for inputs; they distributed their output among family members and

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<sup>39</sup> The latter may be also a cause for concern, since cheap energy resources may further aggravate the already high energy intensity of the country's economy.

<sup>40</sup> Whereas sovkhazes were state farms, kolkhozes were collective farms. Kolkhozes paid some minimum wage to their members; in addition, they distributed shares of their products and profits to their members depending on the number of days worked. Sovkhazes paid their employees a salary.

relatives, and sold the rest through informal channels – for money or via barter deals. In this way, they proved relatively resistant to the overall crisis. As a final outcome a dual farm structure has emerged, characterized by large market-oriented companies on the one hand and predominantly subsistence-oriented household plots on the other. The latter segment of Ukraine's agriculture still provides a very important contributor to the overall agricultural output and food supply.

Employment in agriculture dropped less than output. Currently, the share of agriculture in total employment is around 23% and thus much higher than its share in GDP. This gives the impression of labour-intensive farming technology being applied. In fact, agriculture would be able to produce the same output with much less employment. However, as long as non-agricultural sectors do not offer enough jobs, persons who would otherwise be jobless are happy to survive being integrated into subsistence farming. This type of farming is one of the reasons for Ukraine's low unemployment rate (3.5% in registered unemployment statistics, about 8% according to the Labour Force Survey). The government benefits from this situation. In the absence of subsistence farming it would have to choose between two options: pumping large sums into programmes of poverty reduction or tolerating mass pauperization and deprivation.

## 5.2 Sectoral pattern

Compared to 1990, the output of the livestock sector has declined by over 50%. Apart from the overall economic crisis related to the transition, the break-up of the Soviet Union also contributed to this decline. The Ukraine's animal sector had been heavily dependent on feed deliveries from other former Soviet republics, which dried up in the transition period. To make things worse for producers of milk and meat, the EU and the USA crowded out Ukrainian products from FSU markets. Thanks to their export subsidization schemes, these countries could supply agricultural products at extremely low prices. At the same time they were superior in terms of marketing: they were better in offering highly processed products. In sharp contrast to animal production, the average production of crops fell by less than 20% in the course of transition.

Thanks to the so-called *chornozem*<sup>41</sup>, the quality of agricultural land is excellent. Ukraine used to be the breadbasket of the former Soviet Union. Total grain output exceeded 25 mn t annually already in the years before the Second World War – a quite impressive result considering that period's low quality of seeds and agrochemicals. In the years prior to 1990, the average annual grain harvest reached, mainly thanks to the improved quality of wheat seeds, about 50 mn t. Generally, the grain harvest tends to fluctuate significantly

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<sup>41</sup> The term *chornozem*, meaning 'black earth', has gained international recognition. It refers to Ukrainian soil, ranking as the most fertile possible. Ukraine possesses more than one quarter of the world's fertile black soil.

from year to year. It amounted to 38.8 mn t in 2002, only 20.2 mn t in 2003, but to 41.8 mn t in 2004. Internal demand absorbs about 20 mn t annually. What the grain producing sector harvests in excess of this quantity can either be stored or has to be exported. The 2004 grain harvest triggered an export requirement of about 8 mn t. Russia, an important buyer of Ukrainian grain in previous years, recorded large surpluses itself in that year. Thus, Ukraine looked for other destinations and finally exported most of its surpluses to the Middle and Far East, in particular South Korea. A smaller fraction of the grain export went to the EU.

Sugar beet is no longer as important a crop as it used to be in the past. Traditionally it had been the second most important crop, and sugar was an important export item. Most of the exports went to Russia and Kazakhstan. However, from the mid-1990s, Ukrainian sugar was unable to compete successfully on these latter markets in the presence of cheap imports from low-cost producers such as Brazil or of highly subsidized imports from western countries. In addition, sugar beet producers suffered strong yield volatility due to investment constraints, resulting in a continuous reduction of sown area. As a consequence, compared to 1990 the total area of sugar beet cultivation has shrunk by more than half (54%). Output fell even more strongly, by some 63%, which implies that yields per hectare have declined.

Ukraine has, however, managed to remain one of Europe's leading producers of sunflower seeds. The annual output is between 3 and 4 mn t. The country is successful in exporting sunflower and other oilseeds. Cultivation and export of rapeseeds are still of minor significance, but they are on the rise: compared to sunflowers, rape has a shorter vegetation period and is better suited for soil rotation with wheat.

The strong fluctuation of annual yields in the sugar beet and grain production reflects a lack of tools the use of which would make production more independent of weather conditions, crop diseases and the like. But, for many years already, the farms have not earned enough profits – if any at all – to invest in such tools. A large part of the agricultural area in the middle and north of the country is exposed to intercontinental climate with long cold winters and hot dry summers, which frequently affect crops yields negatively.

Among crops, sunflower seeds and potatoes are the only important ones that have registered a long-term rise in output. Sunflowers enjoy demand both from inside and outside the country, whereas potatoes serve as a staple food in the poorest regions of the country.

With regard to agricultural inputs and outputs as well as farm-related services, the market development suffers from insufficiencies in the institutional framework and in infrastructure. The government is making efforts to promote the development of these networks, but

nevertheless things are changing only slowly. It still happens that farm managers have to negotiate barter trade deals to obtain the required farm inputs. Particularly frequent are energy-for- grain deals.

Agriculture is, naturally, a key supplier of inputs for the food processing industries. The functioning of the link between these two industries deteriorated massively during the 1990s as food processing companies were confronted with shrinking supplies of inputs from domestic sources. At the same time, tariffs and restrictions made imported inputs expensive. The output of Ukraine's food industry diminished continuously up to the mid-1990s. Needless to say, the technical equipment of most food processing enterprises was obsolete and could not keep up with western standards.

Thereafter, however, the privatization of food processing accelerated and the technical standards improved. As a result, the output of food processing has been on the rise, also supported by the depreciated domestic currency. Since production growth has been accompanied by declining employment, labour productivity in the food processing sector has increased; in fact, up to 2001 the sectoral productivity growth was higher than that in the economy as a whole.<sup>42</sup>

### **5.3 Land ownership and land market development**

The 1993 Law on Collective Agricultural Enterprises (CAEs) envisaged three stages in the restructuring process<sup>43</sup>, the first two of which were relatively quickly completed in the 1990s. The first stage consisted in transforming kolkhozes and sovkhoses into CAEs or limited liability companies and in establishing collective ownership of active and retired workers in non-land assets. As a second step, the CAEs were entitled to establish collective – not private – land ownership of employees and to define the criteria for attributing shares to individuals. As a result, former members of kolkhozes and sovkhoses became members of CAEs and collective owners of agricultural land. Members of CAEs received certificates confirming the shares they had in the collectively owned land. But, land plots were not specifically allocated in precise parcels in kind.<sup>44</sup> There are three main differences between the owner of the land share and the owner of a land parcel:

- The owner of a land parcel exactly knows the location of his land parcel and its size, whereas the owner of the land share owns a hypothetical land parcel with undetermined boundaries and location.

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<sup>42</sup> OECD and World Bank (2004).

<sup>43</sup> OECD (1998).

<sup>44</sup> Fedorchenko (2005).



- The land parcel owner may lease it, while the lease rights of the owner of the land share are not specified in the current legislation. Thus, the latter cannot protect his ownership if necessary.
- The land parcel owner may independently start his/her own business/farm, while the land share holder has no such opportunity.

In the course of the ongoing third stage, the CAEs are to be converted into various types of private enterprises based on genuine private (not collective) ownership of land and other assets.

The bulk of the third stage consists in the final legalization of land property rights by issuing land ownership titles. It refers to nearly seven million land titles in a total size of 27.7 million hectares of agricultural land, with an average size of 4 hectares. The ideological conflicts between the cabinet and the parliament over the ownership issue lasted for several years, and were paralleled by obstruction tactics by the orthodox communist wing in the parliament. Only after a long period of paralysis the introduction of the new land code reached its final stage: in 2001 the Land Code was finally amended and came into power on 1 January 2002. Land property rights have gained a more appropriate legal base. However, according to the Code the land is divided into three main categories: residential, industrial and agro-industrial. Whereas owners of residential or industrial land have now the right to sell, exchange, donate or pledge their plots, the owners of agricultural land face many restrictions. The Land Code establishes a moratorium on transactions (sale or purchase) of agricultural lands up to 2007. Moreover, the size of the private plot may not exceed 100 hectares up to 2015.<sup>45</sup> The Code strictly prohibits foreigners from acquiring agricultural land.<sup>46</sup> As a matter of principle, solely citizens and legal entities from Ukraine may privately own agricultural land. The issuing of land ownership titles has accelerated, though it still faces considerable administrative obstacles such as a poorly developed and therefore hardly functioning land cadastre. Up to 2005 some 5.5 million land titles related to agricultural land have been issued. Mainly for lack of funds or know-how, most owners of land titles are not able or willing to cultivate their plots. Since they are not allowed to sell their land, they usually lease it. The total of leased agricultural land amounts to some 20 million hectares. As a result, the major part of agricultural land has so far remained under the control of the CAEs and limited liability companies, which are the successors of the former kolkhozes and sovkhozes.

Although private land ownership has been established, a market for agricultural land has not yet developed. An exception is agricultural land in the neighbourhood of urban

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<sup>45</sup> Nitsevych (2005).

<sup>46</sup> Since Ukrainian land is very cheap, some foreigners, including those from Austria, have concluded leasing agreements, in a hope to buy the land in the future. However, such projects are still relatively few.

agglomerates where non-agricultural investors hope for a change in land utilization plans and a strong rise in the land price. Given the lack of transactions, commercial banks and other lenders do not accept genuine farmland as a collateral. Thus, farms have hardly any access to external funding of investment projects.

## **5.4 Agro-food trade**

### **5.4.1 Institutional framework**

The Partnership and Co-operation Agreement (PCA) between the EU and Ukraine has been in force since March 1998. In addition, Ukraine is benefiting from the General System of Preferences (GSP) arranged by the EU. However, one of the most controversial issues in agro-food trade between the EU and Ukraine have been the EU's import quotas on low- and medium-quality wheat, in effect since 1 January 2003. The EU restricts the import of low- and medium-quality wheat to only 3 million tonnes annually, at a favourable tariff rate of EUR 12 per tonne; 0.6 million tonnes are allocated to wheat imports from the US and Canada, the rest is open for the rest of the world. Imports exceeding this quota are subject to a tariff rate of EUR 95 per tonne (above 100% in value terms). Since Ukrainian wheat exports to the EU often exceed 3 million tonnes annually, the strongly controlled EU grain markets have undermined the grain sector in Ukraine.

Ukraine has signed bilateral free trade agreements with all CIS countries (except for Tajikistan), which should guarantee free trade between the two respective parties. However, in these documents many agro-food products are defined as being excluded from the general rules. Thus, apart from a number of still existing tariff barriers, there are in fact many formal and informal non-tariff barriers hindering agro-food trade between Ukraine and other CIS countries. Similar agreements were in power with the Baltic countries up to the latter's accession to the EU.

The most important bilateral free trade agreement relates to Russia. But, in the mid-1990s, two significant Ukrainian export goods (ethyl alcohol and white sugar) were excluded from the free trade list. As a result, Ukraine could export 0.6 million tonnes of white sugar to Russia duty-free, while the exceeding amount was subject to 25% taxation. In the course of the years however Ukraine lost its international competitiveness in the production of sugar beet and sugar and the country became a net importer of sugar. Nevertheless, in the spring of 2004 the Ukrainian government withdrew sugar and sugar syrups from the free trade regime with Russia and Georgia in order to support domestic sugar beet and sugar producers. The Ukrainian sugar consumption is varying from 1.8 to 2 million tonnes annually, of which around one quarter is imported. In 2004 Ukraine imported 125,000 tonnes of raw sugar under preferential terms, with the rate of import duty

amounting to EUR 30 per tonne. The standard import duty for raw sugar in Ukraine is 50% of the product value but no less than EUR 300 per tonne.<sup>47</sup>

Generally speaking, the Ukrainian statutory trade regime gives the impression of being relatively liberal. However, when in the mid-1990s agro-food imports started to expand rapidly, the Ukrainian government increased the protection of domestic producers in several steps. In 1996 the import-weighted average tariff equivalents for agro-food items amounted to 14.9% and for non-agricultural goods only to 2.1%. By 2002 these rates had risen to 31.4% for agro-food imports and 2.7% for non-agricultural goods. Sugar and sugar-containing goods are the most protected commodities as the *ad valorem* tariff equivalent rate amounted to 146% in 2002.<sup>48</sup> The specific import duties in *ad valorem* terms e.g. for poultry meat are exceeding 100%.<sup>49</sup> However, meat importers were frequently paying no duties at all, because they took advantage of the benefits in Special Economic Zones.

Table 5.1

**Import-weighted average tariff rates in Ukraine, in per cent**

	1996	1997	1998	1999	2000	2001	2002	2003
<b>All goods</b>								
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.
<b>Non-agricultural goods</b>								
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
<b>Agricultural goods</b>								
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.
<b>Implicit tariff rates</b>								
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, World Bank (2004), p. 8.

Apart from tariff barriers, the Ukrainian administration is using many non-tariff-barriers such as licences, special duties, import quotas and bans. The latter are mostly based on the Sanitary and Phytosanitary Standards (SPS). The State Committee for Standardization commands technical standards and certification: the outcome often differs from

<sup>47</sup> *Agra Food Eastern Europe*, No. 260, May 2004.

<sup>48</sup> World Bank (2004).

<sup>49</sup> OECD and World Bank (2004).

international rules. In addition, this authority does not recognize foreign certificates even if those are in line with international standards.

Other measures violating the principle of liberal trade are indicative prices<sup>50</sup> and export duties, which are mostly applied to sunflower seeds and live animals. Ukrainian domestic prices for sunflower seeds are still below the world market price, because the country's administration restricts sunflower seeds exports by export duties. Domestic plants extracting oil from sunflower seeds have been operating far below their processing capacities, and so the policy makers attempt to support them. Given the fact that world market prices of sunflower seeds have been above the Ukrainian price, traders have of course preferred to export the seeds instead of selling them at the lower price on the domestic market. To support the domestic extraction of oil, at the beginning of October 1999 the government introduced a 23% duty on sunflower seed exports. Although this rate was reduced to 17% in October 2002, this measure provoked strong opposition by Ukraine's main trading partners as well as by the IMF and the WTO. As a result of international pressure and approaching WTO membership, the Ukrainian parliament agreed to reduce this export duty by 1 percentage point to 16% as of 1 January 2006.<sup>51</sup> In the following years the rate is to be cut by 1 percentage point annually, to reach 10% in the year 2013.

The Ukrainian government's agricultural policy is one of the major obstacles in the course of the country's current negotiations on WTO membership. The WTO tolerates so-called green-box measures such as support to the development of infrastructure and to an extension of farming-related services or to education and research, but rejects agricultural support policies of a trade-distorting nature, categorizing them as *amber box*<sup>52</sup> measures. The Ukrainian government's policy has so far been of that latter nature. It assures farmers' income mainly through guaranty prices for agricultural output. Recently, sugar import quotas have still been the biggest hindrance on the way to WTO membership as Australia calls for higher quotas and a lower duty on over-quota deliveries for itself. In the field of agro-food trade, Ukraine's WTO membership depends particularly on mutual market access agreements, which have yet to be signed with several countries such as the USA, China and Australia. On the whole, Ukraine's agro-food trade policy still relies on maintaining tariff and non-tariff barriers and represents a major reason why WTO negotiations could not be finalized in 2005, as initially intended. Observers hope for a positive result in 2006.

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<sup>50</sup> Indicative prices are minimum export prices below which goods cannot be exported.

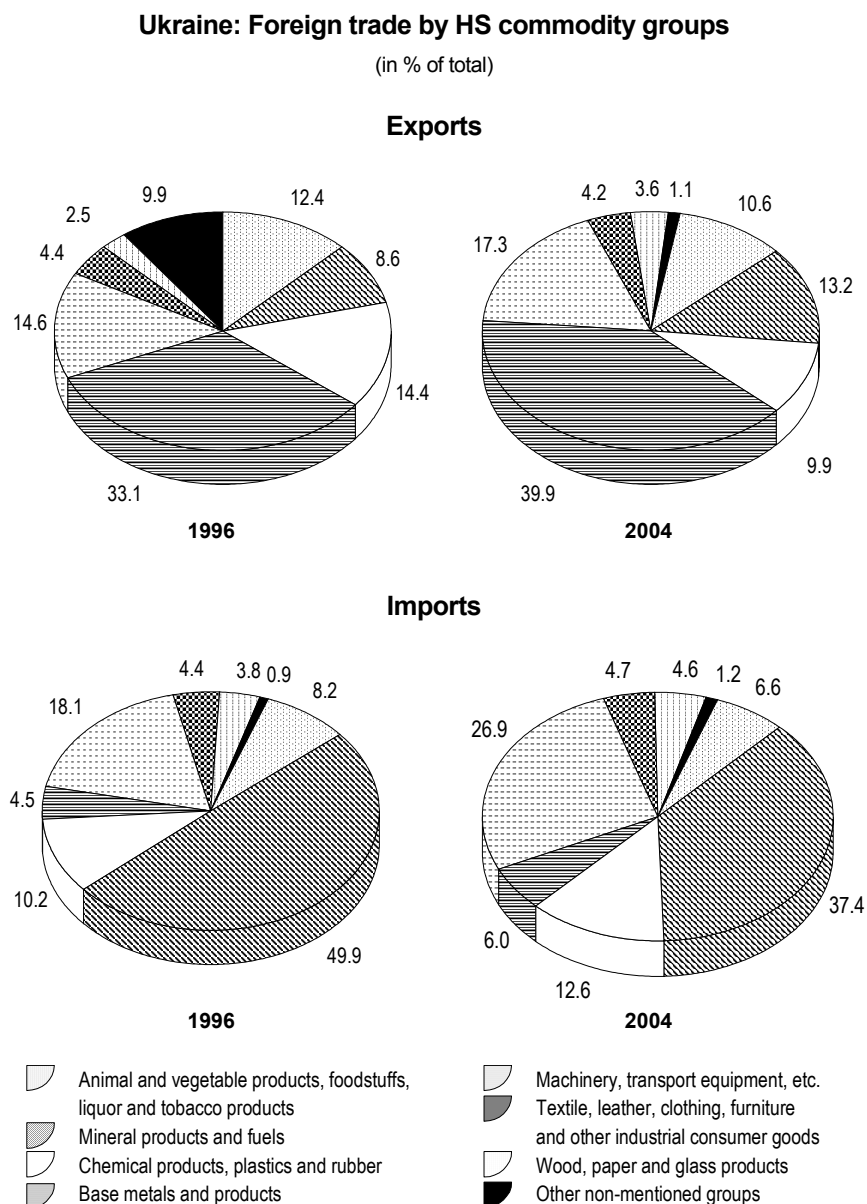
<sup>51</sup> *Agra Food Eastern Europe*, No. 274, July 2005.

<sup>52</sup> In WTO terminology, domestic support measures considered as distorting production and trade generally fall into the category *amber box*. These measures include support through guaranteed prices as well as subsidies directly related to output quantities.

### 5.4.2 Recent developments and prospects

Within Ukraine's exports, the share of fuels has been increased by the rise in energy prices, thus agro-food exports now hold a less prominent position as a source of export revenues. In 2004 their share was only 10.6%. The agro-food share in total imports experienced less variation; in 2004 it was 6.6%.

Figure 5.1



Source: Derzhkomstat

Despite strong fluctuations, Ukraine could keep its position as a net *exporter* of agro-food goods in the past decade. After a decline in 2003, the total agro-food surplus again exceeded EUR 1 billion in 2004. Since the mid-1990s, Ukraine's agro-food exports to

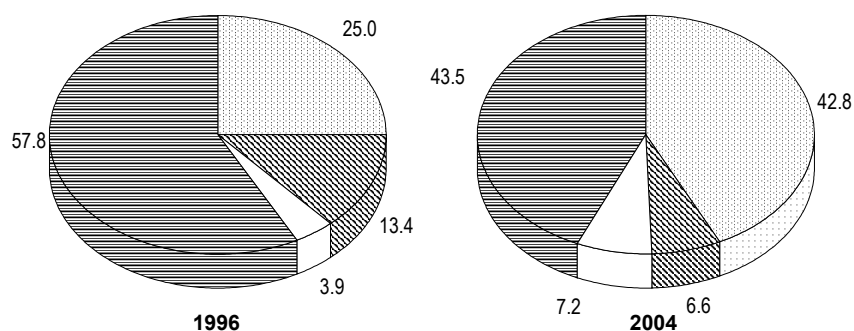
Russia in euro terms have been on the decline, whereas exports to the EU have expanded. Nevertheless, Russia has remained the most important outlet for Ukrainian agro-food exports, absorbing one third of the total. Some 20% of agro-food exports go to the EU-15 and less than 10% to the NMS-8.

Figure 5.2

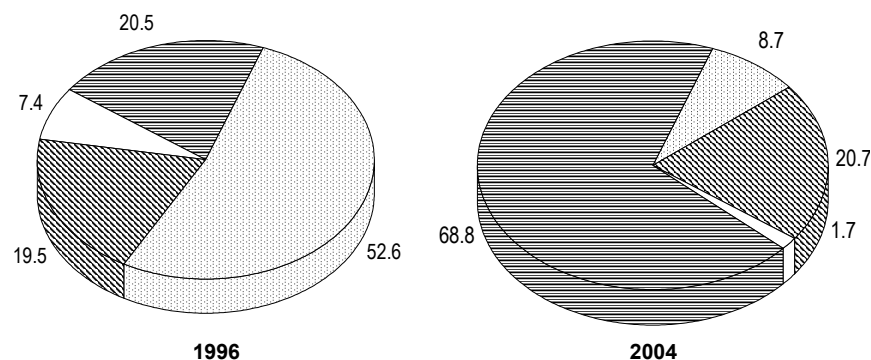
**Ukraine: Agro-food foreign trade with Russia by main commodity groups**





(in % of total agro-food foreign trade)

**Exports**



**Imports**



-  Live animals, animal products
-  Vegetable products
-  Oils, fats and waxes
-  Prep. foodstuffs, beverages, tobacco

Source: Derzhkomstat

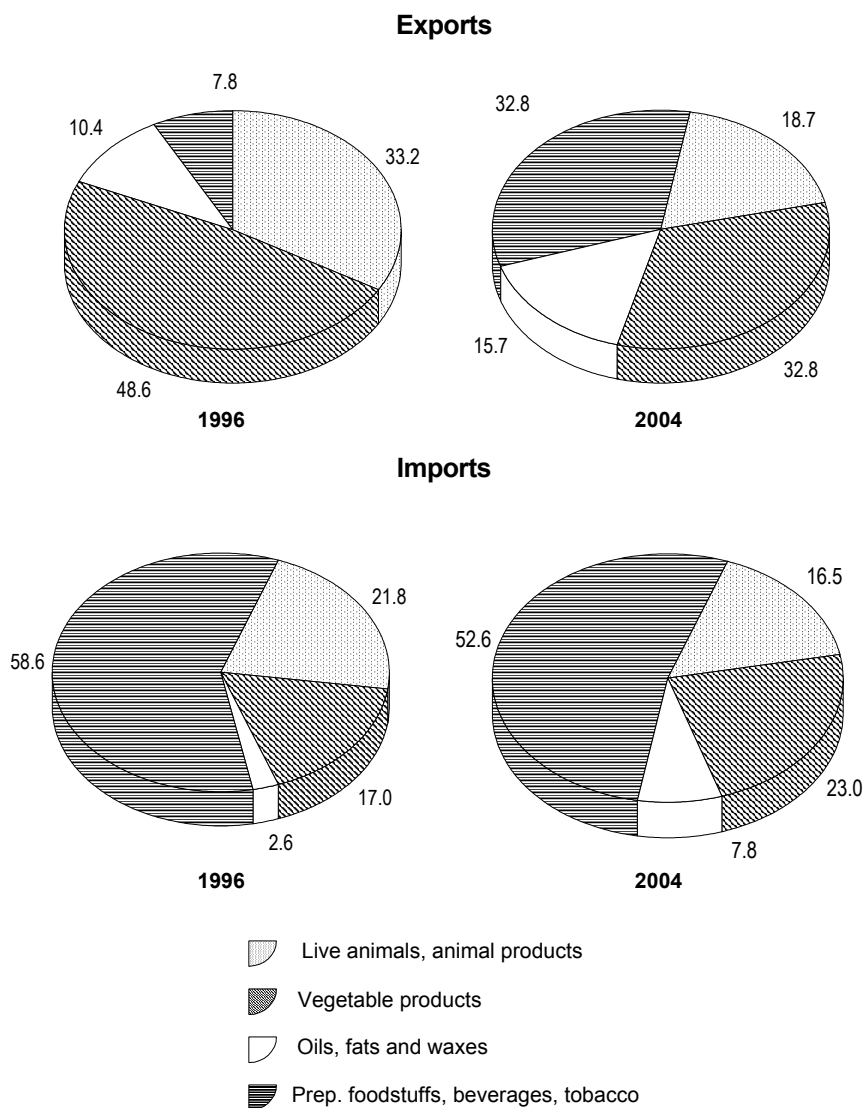
The regional structure of Ukraine's agro-food imports has shifted in favour of both the EU and Russia; imports from third countries have become less important. As a result of rising imports, Ukraine's agro-food trade surplus with Russia dropped by half in the past decade; it now amounts to slightly over EUR 0.5 billion. In the export structure to Russia, meat and

sugar have lost their dominance, while exports of dairies and cocoa preparations have expanded. The picture on the import side is full of variation, with evidence of rising imports of prepared foodstuffs and tobacco.

Figure 5.3

**Ukraine: Agro-food foreign trade by main commodity groups**

(in % of total agro-food foreign trade)



Source: Derzhkomstat

With their accession to the EU in May 2004, the NMS-8 took over the strict EU norms and rules. Prior to 2004 many observers expected that Ukraine would lose part of its markets in the NMS-8, due to the low SPS (sanitary and phytosanitary standards) in Ukraine. However, the trade figures for the year 2004 show that Ukraine has been able to cope quite well with the SPS applied in the NMS. In 2004 agro-food exports covered 81% of imports from the NMS-8, while one year earlier the coverage rate had stood at 52% (see

Table A16). Both of the two components of agro-food export, unprocessed agricultural goods and processed foodstuffs, registered improvements. Also the balance in the agro-food trade with the EU-15 improved in 2004: Ukraine returned to its position as a net agro-food exporter with exports exceeding imports by 11% (see Table A17).

All in all, grain, vegetable oil and dairies have dominated agro-food exports. As mentioned above, due to the overcrowded and protected European markets, Ukraine is exporting most of its grain surpluses to the Middle and Far East. Although non-processed agricultural items or less processed no-name foodstuffs are still prevailing in the export structure, the share of high value-added agro-food goods (prepared foodstuffs) is rising.

Apparently, Ukrainian food producers and exporters are now benefiting from investments they made in the past couple of years. Ukrainian farmers too have some comparative advantages. They dispose of a large agricultural area of excellent soil quality, and the climate is relatively favourable. In addition, many people in rural areas are ready to work for little money, because there are no alternative jobs in the countryside. All that, coupled with the given exchange rate of the hryvnia, results in competitive farm-gate prices in some agro-food subsectors. The fact that Ukraine is still using a number of tariff and non-tariff barriers in several areas of agro-food imports (notably sugar and meat) can be traced back to distorted (artificially low) world market prices of various agro-food commodities caused by massive export subsidies in the exporting countries.

In 2005 economic growth has been much less pronounced than in previous years. Nevertheless, real wages and incomes surged, and also the average standard of living improved, in this way fostering a rise in the demand for foodstuff. This has led to an expansion of domestic food processing activities, as the current exchange rate is supportive to the competitiveness of domestic enterprises. In euro terms, inputs – including labour – have very low prices, and correspondingly low are the prices at which producers of tradable goods can offer their output.

Benefiting from the excellent quality of its agricultural land, Ukraine has doubtlessly a large production and export potential in the agro-food sector, particularly as concerns crop-based products. Any country producing surpluses and willing to export them must overcome tariff and non-tariff barriers in the importing country. These restrictions are especially significant in agro-food trade. In this context, SPS represent a special instrument with quite contradicting functions: they may serve either as a non-tariff barrier in the importing country or, in the case of high SPS achieved in the exporting country, as a strong promotion of agro-food exports.

The international agro-food markets will most probably be opened step by step. Ukraine as a country with strong export ambitions would benefit from higher SPS, if the quality of its



agro-food goods improved accordingly. This improvement is in fact crucial as there is clear evidence that, along with the lowering of tariff barriers, the trade restrictions under SPS are becoming more severe in the importing countries. Taking into account the improved Ukrainian agro-food trade position with the EU in 2004, the SPS achieved in Ukraine so far are not too bad. It seems that the costs of a further improvement of SPS would not be overwhelming and would also serve in enabling Ukraine to access the global agro-food markets. As opposed to the NMS-8, Ukraine has also a realistic opportunity to expand its exports of a large number of no-name products based on crops. While those are indeed low value-added goods, Ukraine is able to produce them at a competitive price without export subsidies. In addition, after joining the WTO (probably in 2006), Ukraine will gain easier access to the world markets. However, any substantial real appreciation of the Ukrainian hryvnia, in particular against the US dollar and the euro, would significantly undermine the generally positive impact of the ongoing trade liberalization on Ukrainian agro-food exports in the long run.

## **6 Foreign direct investment: constraints and opportunities**

*by Vasily Astrov*

The pattern of Ukraine's foreign trade identified in previous sections and the country's economic prospects are intimately linked to the trends in the foreign direct investment (FDI). The present section deals with the recent FDI trends, analyses their structure by recipient sector and home country, and identifies the major impediments and opportunities.

### **6.1 Trends in FDI**

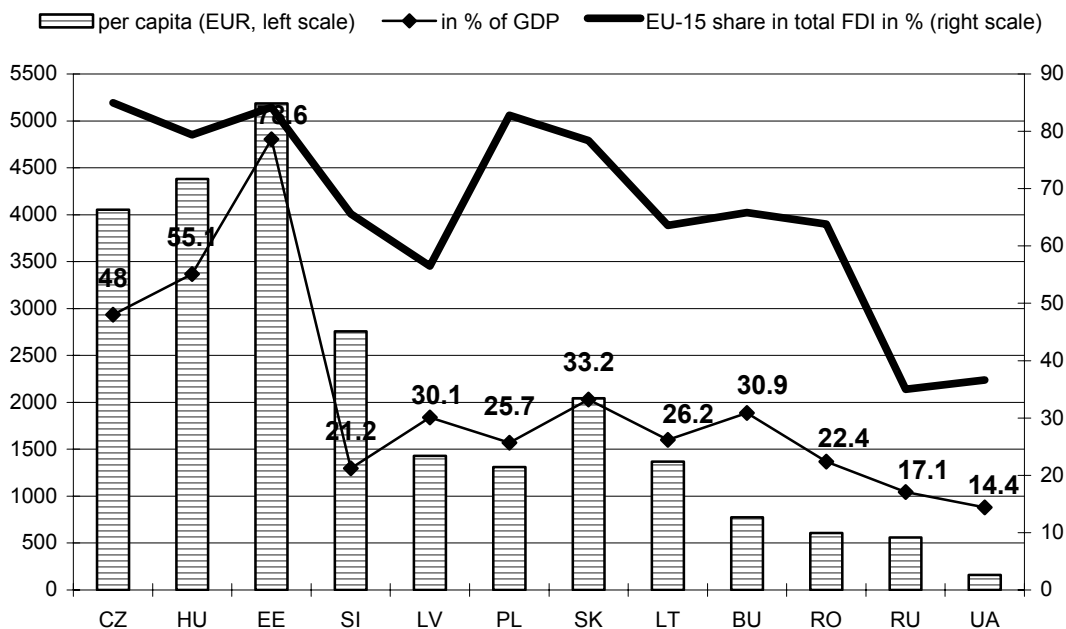
The current structure of Ukraine's exports does not provide much room for long-term growth and makes the country highly vulnerable to volatile commodity prices. (In fact, as already mentioned, the recent marked slowdown in Ukraine's economic growth can be at least partly attributed to the falling steel prices.) However, the high current account surpluses (5.8% of GDP in 2003, 10.5% in 2004 and some 3% in 2005) persistently enjoyed by Ukraine could, at least theoretically, allow for more imports of investment goods which are badly needed for the modernization of the country's economy. As illustrated by the recent example of the NMS, particularly Hungary, the Czech Republic and Estonia, such imports and more FDI inflows may also gradually form a basis for the subsequent upgrading of Ukraine's export structure. Thanks to successful industrial restructuring, the NMS's manufacturing exports to the EU-15 have been rapidly growing, making strong inroads into the EU market in a wide range of manufactured products, such as motor vehicles, TV, radio and telecommunication equipment, office machinery and computers. In most instances, this positive development has been enabled by the high inflows of FDI, the bulk of which has come from the 'old' EU. The experience of these countries has shown

that capital *per se*, though important, is just one, and not the most important, benefit reaped by a country-recipient of FDI. Much more important have been the related transfer of technology and managerial know-how, which generally gave rise to remarkable productivity improvements and successful marketing strategies. Therefore, it is not only the *volume* of FDI inflows which matters but also their *source* and the *sectors targeted*, with FDI originating from advanced economies (such as the EU-15) and targeting the more sophisticated industrial branches bringing the most benefits.

On this account, the performance of inward FDI into Ukraine has so far been disappointing – see Figure 6.1. By the end of 2004, the cumulated inward stock of FDI in Ukraine amounted to just EUR 160 *per capita* – far below the levels observed not only in the advanced NMS such as Estonia (EUR 5200) or Poland (EUR 1300), but even in Bulgaria (EUR 770) or Russia (EUR 560). In terms of FDI stock *as per cent of GDP*, Ukraine is also lagging behind – even though the gap is generally not as striking: 14.4%, compared to 17.1% in Russia, 25.7% in Poland and 78.6% in Estonia. Finally, *the share of EU-15* as a foreign direct investor in Ukraine stands at just 35% - similarly to Russia, but far below the levels observed in most other Central and East European countries, where they generally exceed 60%. The latter could be interpreted not only as a sign of the relative technological

Figure 6.1

**Stocks of inward FDI in Ukraine and selected CEECs, December 2004**



Remark: EU-15 share for CZ, HU, PL, SI as of 2003, for RU estimate.

Source: wiiw (2005a) based on national statistics.

inferiority of Ukraine's inward FDI – in line with the arguments presented in the previous paragraph – but also as a sign of the low degree of Ukraine's integration with the EU in terms of investment, complementing the low degree of trade integration.

By contrast, *Russian FDI* into Ukraine has been quite extensive – even though officially Russia is only the seventh biggest foreign direct investor in Ukraine, with a share of a mere 5.5% as of end-2004 (see Table 6.1). In particular, the official figure hardly reflects the true situation, as the bulk of Russian FDI in Ukraine has come via the 'offshore' countries, notably Cyprus (ranking second) and the Virgin Islands (ranking sixth).<sup>53</sup> The Russian

Table 6.1

**Inward FDI stock by home country, end of year**

	2001	2002	2003	2004	2001	2002	2003	2004
	EUR mn				in % of total			
1 United States	882.2	858.3	848.4	848.1	17.1	16.3	15.6	13.8
2 Cyprus	559.4	647.7	721.8	761.3	10.8	12.3	13.3	12.4
3 United Kingdom	470.0	514.7	561.1	658.6	9.1	9.8	10.3	10.7
4 Germany	284.2	306.2	361.4	464.3	5.5	5.8	6.6	7.6
5 Netherlands	424.5	381.9	368.0	403.0	8.2	7.2	6.8	6.6
6 Virgin Islands, British	312.3	333.6	294.1	399.7	6.0	6.3	5.4	6.5
7 Russia	358.0	311.5	311.0	336.3	6.9	5.9	5.7	5.5
8 Switzerland	254.2	262.3	257.4	302.3	4.9	5.0	4.7	4.9
9 Austria	163.9	206.5	202.0	254.0	3.2	3.9	3.7	4.1
10 Poland	78.6	94.6	122.2	141.4	1.5	1.8	2.2	2.3
11 Hungary	66.2	76.9	103.0	131.7	1.3	1.5	1.9	2.1
12 South Korea	193.4	165.9	138.0	126.7	3.7	3.1	2.5	2.1
13 Liechtenstein	51.9	69.7	69.9	93.1	1.0	1.3	1.3	1.5
14 Sweden	101.2	87.1	82.5	88.4	2.0	1.7	1.5	1.4
15 Canada	59.6	60.2	63.9	86.6	1.2	1.1	1.2	1.4
16 Italy	92.0	83.4	75.9	78.0	1.8	1.6	1.4	1.3
17 Ireland	84.2	75.1	61.9	40.2	1.6	1.4	1.1	0.7
Other	733.2	737.9	794.9	927.2	14.2	14.0	14.6	15.1
<b>Total by countries</b>	<b>5168.8</b>	<b>5273.5</b>	<b>5437.2</b>	<b>6140.8</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
of which EU-15	1776.3	1824.8	1921.9	2245.1	34.4	34.6	35.3	36.6

*Remark:* Inward FDI stock refers to equity capital, reinvested earnings (registration data). Data are based on a survey carried out by the State Statistics Committee.

*Source:* wiiw (2005a) based on Derzhkomstat data.

<sup>53</sup> In fact, the FDI coming from the 'offshore' countries partly represents also Ukrainian capital which fled the country over the previous years.

Table 6.2

**Inward FDI stock by economic activity, end of year**

	2001	2002	2003	2004	2001	2002	2003	2004
	EUR mn				in % of total			
NACE classification:								
A Agriculture, hunting and forestry	98.5	109.1	164.9	166.9	1.9	2.1	3.0	2.7
B Fishing	0.5	0.4	0.4	1.5	0.0	0.0	0.0	0.0
C Mining and quarrying	174.9	184.1	147.8	127.2	3.4	3.5	2.7	2.1
D Manufacturing	2504.1	2453.6	2528.6	2657.4	48.4	46.5	46.5	43.3
E Electricity, gas and water supply	93.7	81.5	39.8	26.4	1.8	1.5	0.7	0.4
F Construction	132.4	165.6	157.7	181.5	2.6	3.1	2.9	3.0
G Wholesale, retail trade, repair of veh.etc.	872.8	906.0	907.7	1152.2	16.9	17.2	16.7	18.8
H Hotels and restaurants	133.4	155.7	149.7	189.4	2.6	3.0	2.8	3.1
I Transport, storage and communication	350.4	381.9	425.3	462.8	6.8	7.2	7.8	7.5
J Financial intermediation	403.0	405.4	403.6	505.4	7.8	7.7	7.4	8.2
K Real estate, renting & business activities	201.4	231.2	314.0	433.1	3.9	4.4	5.8	7.1
L Public administr., defence, comp.soc.sec.	.	0.1	.	.	.	0.0	.	.
M Education	3.9	3.2	2.7	2.6	0.07	0.06	0.05	0.04
N Health and social work	132.9	116.2	109.6	114.5	2.6	2.2	2.0	1.9
O Other community, social & pers.services	67.0	79.4	85.6	119.8	1.3	1.5	1.6	2.0
<b>Total by activities</b>	<b>5168.9</b>	<b>5273.5</b>	<b>5437.3</b>	<b>6140.8</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>D Manufacturing industry</b>								
DA Food products, beverages and tobacco	916.8	830.8	805.4	826.0	36.6	33.9	31.9	31.1
DB_DC Textiles & prod.; leather & prod.	62.52	75.75	78.83	88.06	2.5	3.1	3.1	3.3
DD Wood and wood products	64.0	70.4	79.9	95.6	2.6	2.9	3.2	3.6
DE Pulp, paper & prod.; publish.& printing	60.6	91.3	108.8	112.4	2.4	3.7	4.3	4.2
DF Coke, ref.petroleum prod. & nuclear fuel	204.6	187.0	146.9	157.0	8.2	7.6	5.8	5.9
DG_DH Chemicals & prod.; rubber & plastic	223.8	252.5	254.6	346.9	8.9	10.3	10.1	13.1
DI Other non-metallic mineral products	102.1	112.4	117.5	127.0	4.1	4.6	4.6	4.8
DJ Basic metals & fabricated metal prod.	269.6	282.7	362.4	312.7	10.8	11.5	14.3	11.8
DK_DM Machinery; elec.equip.; transp.equip.	481.0	456.1	482.9	497.2	19.2	18.6	19.1	18.7
DN Manufacturing n.e.c.	119.1	94.9	91.6	94.5	4.8	3.9	3.6	3.6
<b>D Manufacturing industry total</b>	<b>2504.1</b>	<b>2453.6</b>	<b>2528.6</b>	<b>2657.4</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

*Remark:* Inward FDI stock refers to equity capital, reinvested earnings (registration data). Data are based on a survey carried out by the State Statistics Committee.

*Source:* wiiw (2005a) based on Derzhkomstat data.

presence is particularly visible in the energy sector, with four out of six refineries owned by Russian companies. The high importance of Russian capital in Ukraine reflects not only the cultural, geographical, etc. proximity, but is also a manifestation of the country's economic dependence on Russia. In fact, a substantial part of Russian investment in Ukraine has been driven by the latter country's failure to honour its energy-related debt to Russia (particularly that for gas) on time, resulting in a series of debt-for-equity swaps. Russian acquisitions in Ukraine gained momentum in February 1998, after the two

countries had signed a ten-year Agreement on Economic Co-operation, which enabled Russian companies to participate in Ukraine's privatizations. According to some estimations, only in the short time span of six months in 2000, Russian investors took over half of Ukraine's petroleum market.<sup>54</sup> Also, in autumn 2003, Ukraine allowed Russia's state-owned electricity monopoly *RAO UES* to participate in the partial privatization of its electricity network, and the control stake at the biggest Ukraine's mobile operator *UMC* is held by the Russian *MTS*. Other assets acquired by Russian investors include underground storage tanks, port facilities, aluminium plants, dairies, banks and broadcast media.

A breakdown of Ukraine's FDI stock by economic activity (Table 6.2) reveals that the sector which has attracted most FDI is wholesale and retail trade (18.8%), followed by the food processing industry (13.5%), the financial sector (8.2%), and machinery and equipment (8.1%). The dominance of the food processing industry and trade is not surprising, since these are the branches which have been developing particularly fast in the past few years, taking advantage of the initial low level (trade) and the opportunities for import-substitution provided by the hryvnia devaluation in 1999 (food processing industry). Both branches have a relatively short pay-off period – a reflection of investors' concerns over the country's longer-term prospects and the security of their property rights.

## 6.2 FDI impediments and outlook

It had been widely anticipated that FDI inflows into Ukraine would accelerate markedly following the EU enlargement (after the country finds itself bordering the European Union) and the 'orange revolution', which brought to power a pro-western government. Interestingly, these events appear to have triggered a surge of *outward* investment from Ukraine to the NMS. The latter largely represents the transfer of production of 'sensitive goods' (notably metals) aimed at avoiding the restrictive EU import regime and was helped by the good liquidity position of Ukrainian producers of metals in 2004. Ukrainian investments into NMS metallurgy assets represent first of all the acquisitions by Ukraine's *Donbas Industrial Union Corporation* of two steel mills in Hungary (*Dunaffer* in 2003 and *DAM* in 2004) and of the Polish *Huta Czestochowa* in 2005.<sup>55</sup>

At the same time, the performance of *inward* FDI has been rather disappointing. In the first half of 2005, FDI inflows declined by some 40% year-on-year in euro terms. On the one hand, as before, foreign direct investment in Ukraine is constrained by the persistent political uncertainty, bureaucratic hurdles, corruption, and the lack of the rule of law. On the other hand, as already mentioned in section 2, the country's overall investment climate

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<sup>54</sup> Gatev (2004).

<sup>55</sup> Also here, the official statistics putting Ukraine's FDI outflows at just EUR 3million in 2004 and EUR 15 million in the first half of 2005 are to be treated with caution. Similarly to the Russian investments in Ukraine, the Ukrainian investments abroad are largely carried out via the third ('off-shore') countries.

deteriorated still further in the aftermath of the 'orange revolution', and the country's climate for FDI suffered accordingly. The deterioration of the investment climate has been largely due to the campaign aimed at revising the results of previous privatization deals conducted under former President Kuchma; the retroactive abolition of preferences granted to the Special Economic Zones and certain sectors, and a number of other measures. Individual policy measures undertaken or planned by the government and their actual/possible impact on the economy and the business climate in the country are summarized in Table 6.3.

However, the most recent trends observed in the sphere of economic policy and in the attitude of foreign investors give ground for cautious optimism. On the one hand, the present government of Mr Yekhanurov appears to be much more balanced than its predecessor, while a comeback of Ms Tymoshenko as a result of the March 2006 parliamentary elections seems now less likely. On the other hand, the second half of 2005 witnessed several big FDI deals, which point to the long-awaited turnaround of the earlier negative trend. Among these deals are the highly successful EUR 4 billion worth re-privatization of Ukraine's biggest steel mill *Kryvorizhstal* (to *Mittal Steel*) and the EUR 1 billion worth takeover of Ukraine's second biggest bank *Avalbank* by *Raiffeisenbank* of Austria.

The latter deal is to be viewed as part of the more general trend of a surging interest on the part of foreign investors – including those from Russia – towards the still untapped Ukrainian banking sector. In addition to *Avalbank*, in the pipeline are reportedly *Ukrsibbank* (to be taken over by *BNP Paribas* of France), *Mriya* (by *Vneshtorgbank* of Russia), and *Ukrsotsbank* (by *OTP Bank* of Hungary).<sup>56</sup> At the end of September 2005, foreign capital accounted for a mere 10.8% of total banking capital in the country (although this figure did not take into account the takeover of *Avalbank*, which was finalized in October). This is far below the penetration levels observed in most other Central and East European countries and points to the huge potential offered by this sector. Also, the banking sector of Ukraine is primarily in private hands and is much more fragmented than e.g. the Russian banking sector, which is still largely monopolized by the state-owned banks. Both above-mentioned factors should facilitate a takeover of Ukraine's banking sector by foreigners. Finally, an additional boost to FDI in banking will be given by the adoption of a law allowing branches of foreign banks to operate in the country within the framework of the country's WTO accession expected in 2006. (At present, the presence of foreign banks in Ukraine is allowed only in the form of subsidiaries.) Otherwise, the country's prospects for attracting FDI will almost certainly improve after WTO accession (see Box 2) also because the latter will make possible free trade negotiations with the EU.<sup>57</sup>

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<sup>56</sup> 'Inostrannyi kapital v bankovskom sektore Ukrainy budet rasti', *Korrespondent.net*, 30 November 2005.

<sup>57</sup> Also, as a WTO member, Ukraine will no longer be confronted with the EU steel quota and will be eligible for compensation of any losses resulting from future EU enlargements.

Table 6.3

### Recent government steps to improve the business climate and their impact

<i>Objective</i>	<i>Actual/planned introduction and effect on business environment</i>
<b>Counteracting corruption</b>	
The "Stop Smuggling!" programme at customs offices: an improvement in customs supervision forms and methods, improving the environment for importers and exporters, significantly reducing the duration of customs procedures.	Programme adopted on 1 April 2005. Increase in the share of officially imported goods. Increase in the unofficial price (i.e. volume of bribes) for law violations. Corruption at customs offices remained widespread.
Increasing salaries for judges and court workers.	Planned on 1 January 2006. Aimed at decreasing the financial dependence of judicial system. In reality, this sole measure is unlikely to change the situation significantly.
<b>Establishing an environment for equal competition</b>	
Canceling tax breaks and exemptions for special economic zones (SEZs), territories of priority development (TPDs) and specific sectors.	31 March 2005 Negative short-term effect: brake on a number of investment projects and decrease in foreign direct investments.
New regulation to impose VAT on investments in the form of basic production assets (in order to prevent the import for sale of ready-made products that were shipped in supposedly as fixed assets).	31 March 2005 Significant increase in production costs for investors importing large volumes of industrial equipment, which resulted, in particular, in FDI decrease.
A new requirement for tolling schemes to accept bills of exchange for supplies of raw materials and promissory notes for taxes due on imports of finished goods.	31 March 2005 Negative impact on investment due to reduced working capital and the tying up of valuable assets as collateral.
<b>Improving the business regulation environment</b>	
Setting up a "one-stop shop" system for registering a new business: the period for drawing up necessary papers is to be reduced by two-thirds to about one week and the fees for registering a new business are to be cut.	1 July 2005 Single registration offices created in all the 677 registration centres by 29 July 2005. <sup>58</sup> However, queues in many centres are long due to the insufficient number of state registrars.
Setting up a "one-stop shop" system in the customs system.	1 June 2005 The goal achieved only partially due to the existence of many ambiguous legal rulings, and lack of logistic facilities on customs.
Adopting the law "On permit system in the commercial activity".	6 September 2005 Improves considerably the process of obtaining permits.
Regulatory reform: revision of regulatory acts so as to make them coherent with the law "About regulatory policy".	Since 1 June 2005 Vague results. Officials have looked through 9,340 documents. <sup>59</sup> Many of 4,940 abolished documents <i>de facto</i> had not been in effect or even had already been abolished by earlier adopted laws.

Source: Gazizullin (2005).

<sup>58</sup> According to the State Committee for Regulatory Policy and Entrepreneurship.

<sup>59</sup> By 17 October 2005, according to the State Committee for Regulatory Policy and Entrepreneurship.

Box 2

### **Ukraine's accession to the WTO**

Ukraine applied for WTO (then: GATT) membership back in December 1993. However, the accession negotiations have intensified only recently. By 10 December 2005, Ukraine had signed 41 bilateral protocols on market access, including with Mexico, Uruguay, New Zealand, Canada, South Korea, Slovenia, Georgia, Latvia, India, Hungary, the Czech Republic, Slovakia, Bulgaria, Cuba, Israel, Poland, Estonia, Brazil, Thailand, Switzerland, Malaysia, Paraguay, Lithuania, Argentina, Sri Lanka, Turkey, Honduras, Dominican Republic, Mongolia, El Salvador, Indonesia, Norway, Moldova, Iceland, Japan, Romania, Morocco, Croatia, Colombia, Peru and the EU.<sup>60</sup> Also, negotiations with China are completed. In the wake of the legislative approximation to WTO standards, Ukraine has *inter alia* lowered the export tariffs on oilseeds and import tariffs on a number of other agricultural products, abolished the mandatory registration of oil exports, liberalized imports of second-hand cars, introduced the protection of intellectual property rights in application to laser discs, and opened the domestic insurance market to foreigners five years after the accession. 95% of tariff lines have been reportedly agreed, the remaining 5% representing 'sensitive' agricultural products such as sugar.

However, bilateral protocols on market access with a few countries – including most importantly Australia and the United States – are still pending. Ukraine's tariff quota on imports of sugar is the main stumbling block in negotiations with Australia, while agricultural support – along with the protection of intellectual property rights – features among the major problems in negotiations with the US. In addition, Ukraine's parliament has failed so far to pass the necessary legislation in full, notably in the area of removing export restrictions, technical regulations and sanitary and phytosanitary standards, and trade defence (anti-dumping) measures. A number of important WTO-related laws, including the permission to open branches of foreign banks and the liberalization of scrap metal exports, have been passed only in the first reading.

As a result, the country's WTO accession initially planned for December 2005 at the Hong Kong ministerial conference has been postponed, although it is realistic to expect the accession some time in 2006.

## **7 Conclusions and implications**

The main findings of the study may be broadly summarized as follows.

In the past few years, the Ukrainian economy has been growing rapidly, albeit from a very low base resulting from the dramatic decline in the course of the 1990s (by 2004, the country's GDP still stood at just 61% of the 1990 level). However, in 2005 economic growth slowed down markedly, partly reflecting the disappointing political developments that had set in after the 'orange revolution' in late 2004, but also pointing to the extreme vulnerability of the country's current growth path. The demand for investment goods, which had been one of the motors of the recent economic upswing, suffered from the re-privatization campaign launched by the new authorities as well as from the erratic reforms, while exports

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<sup>60</sup> 'Carrying out EU-Ukraine action plan' (2005).



fell victim to the steep fall in world prices of steel – Ukraine’s major export commodity. By and large, the country’s economy remains hostage to the political uncertainty ahead of the parliamentary elections scheduled for 26 March 2006.

Ukraine’s foreign trade developments over the past several years have been generally characterized by a re-orientation of trade flows towards the non-CIS markets. This has been particularly the case with exports, while the re-orientation of imports has been kept within limits by the country’s high dependence on imports of energy from Russia. The latter also explains Ukraine’s persistently high trade deficit with Russia (although the trade deficit with the EU has been rising as well). Our findings suggest that in trade with the ‘old’ EU and the NMS, Ukraine is specializing in a relatively narrow range of not very sophisticated products: notably metals, chemicals, and mineral fuels, while imports are dominated by machinery and equipment. However, in its trade with Russia (and to some extent with the Baltic states), Ukraine has a strong position in a number of more sophisticated items such as transport vehicles and machinery and equipment – although this is partly explained by the existence of production links dating back to Soviet times. In accordance with the above findings, the extent of intra-industry trade is low in Ukraine’s trade with the EU-15 and most NMS, which may be interpreted as indicating a wide gap in productive factor endowments. However, intra-industry trade is more pronounced in trade with Russia and some less advanced NMS, notably Poland.

Despite high expectations after the ‘orange revolution’, Ukraine’s relations with the EU have not advanced very much, although the country has finally been granted the ‘market economy’ status (December 2005) making the application of anti-dumping measures against Ukraine’s exports to the EU more difficult. However, the EU is still reluctant to acknowledge the country’s EU membership prospects – notwithstanding the new accents (positive for Ukraine) brought to the EU’s foreign policy by the NMS. At the same time, the fears of economic losses to Ukraine from the EU enlargement proved largely unfounded. In 2004 the country’s exports to most NMS were actually higher than the year before, with the exceptions of Hungary and Estonia. Despite the higher SPS requirements, Ukraine’s agricultural exports to the NMS have performed well, while the EU’s import quota for steel has been substantially raised (and will be abolished altogether after Ukraine has joined the WTO).

The Common Economic Space between Ukraine, Russia, Belarus and Kazakhstan agreed upon in September 2003 has not advanced very much, at least as far as Ukraine’s participation is concerned. The main reason for that is that Ukraine and Russia have very different views as to the speed and the final stage of the planned (re-)integration. While Russia would like to form at least a customs union within the CES framework, Ukraine’s interest in the project is confined to a free trade area only. The most tangible result of the CES Agreement so far has been the shift to the uniform ‘country of destination’ principle of

indirect taxation of goods traded with Russia, which was expected to bring economic benefits to Ukraine in the form of cheaper energy. However, these expectations have not materialized, and any convergence of Ukraine's domestic energy prices to the Russian (also rising) levels is only possible at the higher stages of integration – which Ukraine is reluctant to enter.

Ukraine has achieved considerable progress in its WTO accession negotiations and will most probably accede some time in 2006, although the remaining stumbling blocks – particularly the extensive protection of the country's agricultural sector – still need to be settled. Generally, Ukraine's agriculture has a great production and export potential due to its rich soil, ranking among the best in the world, and the country is already highly competitive in a number of products, notably sunflower seeds. At the same time, the potential in some other products (such as sugar, but also to a certain extent grain) is constrained by the existing trade distortions (particularly the agricultural export subsidization by the rich countries) and insufficient investment resulting from the slow progress in land market development. Small-scale labour-intensive subsistence farming is very important and helps keep unemployment within limits.

In comparison to the NMS and some other Central and East European countries such as Bulgaria and Romania, the inflows of FDI to Ukraine have been meagre and in fact even declined in the first half of 2005. Pervasive corruption, bureaucratic hurdles, delay in the implementation of structural reforms, and – more recently – political instability are behind this disappointing development. In addition, the EU's share in Ukraine's inward FDI stock is small as well, pointing to the low level of Ukraine's integration with the EU also from the investment point of view. However, a turnaround in the FDI activity has already started and will probably become even more pronounced following the country's accession to WTO. Among the sectors which are likely to be targeted the most are banks, but also agriculture, which – provided the land reform is further pursued – may well follow the path of the food processing industry, which has greatly benefited from inflows of FDI over the past few years.

## References

*Agra Food Eastern Europe* (2004), several issues.

*Agra Food Eastern Europe* (2005), several issues.

Andrianov, V. (2003), 'Aktual'nye problemy sotrudnichestva Rossii so stranami SNG', *Obschestvo i ekonomika*, No. 7-8, pp. 168-187.

Apap, J. and A. Tchorbadjiyska (2004), 'What about the neighbours? The impact of Schengen along the EU's external borders', *CEPS Working Document*, No. 210, October.

Astrov, V. (2003), 'Iraq crisis, oil price, and economies in transition', *The Vienna Institute Monthly Report*, No. 3, The Vienna Institute for International Economic Studies (wiiw), pp. 1-3.

Balmaceda, M. (2004), 'Explaining the management of energy dependency in Ukraine: possibilities and limits of a domestic-centered perspective', Mannheim Zentrum für Europäische Sozialforschung, Working Paper No. 79.

Boratyński, J., G. Gromadzki and O. Sushko (2005), 'How to make a difference? EU-Ukrainian negotiations on facilitation of visa regime', Stefan Batory Foundation, Warsaw-Kiev, October.

'Carrying out EU-Ukraine Action Plan' (2005), paper presented by the Ukrainian government at the conference 'Ukraine facing the future: on the road of reform', Brussels, 6 October.

'Ekonomicheskoe obozrenie: Belarus, Kazakhstan, Rossiya, Ukraina' (2005), Fond Nasledie Evrazii i Fond Ekonomicheskikh Issledovaniy 'Tsentr Razvitiya', No. 2 (4), Moscow.

Elborgh-Woytek, K. (2003), 'Of openness and distance: trade developments in the Commonwealth of Independent States, 1993-2002', *IMF Working Paper WP/03/207*.

EU Commission (2003), 'Wider Europe – Neighbourhood: A New Framework for Relations with our Eastern and Southern Neighbours', Communication from the Commission to the Council and the European Parliament, COM(2003) 104 final, Brussels, March.

European Council (1999), 'European Council Common Strategy of 11 December 1999 on Ukraine', *Official Journal of the European Communities*, 23 December.

Fedorchenko, M. (2005), 'Ukraine's Experience in the Field of Land Reform', report prepared for the International Conference on Land Reform Policies in Transition Economies, Ulaanbatar, Mongolia, 28-29 October.

Gatev, I. (2004), 'The EU's new neighbourhood policy towards Ukraine', paper prepared for the European Foreign Policy Conference, LSE, 2-3 July.

Gazizullin, I. (2005), 'Business environment in Ukraine: the role of network industries', International Centre for Policy Studies, draft paper, November.

Havlik, P. (1994), 'Slavic (dis)union: consequences for Russia, Belarus and Ukraine' (with H. Boss), *Economics of Transition*, Vol. 2, No. 2, Oxford University Press.

Helpman, E. (1999), 'The structure of foreign trade', *Journal of Economic Perspectives*, Vol. 13, No. 2, pp. 121-144.

International Centre for Policy Studies (2003a), 'Assessment of the impact of EU enlargement and implementation of the Schengen Treaty in CEE countries on Ukraine', *Policy Studies*, No. 20, Kiev, January.

International Centre for Policy Studies (2003b), 'Impact of EU enlargement in 2004 on Ukraine's foreign trade', *Survey Report*, Kiev, October.

*Korrespondent.net*, various issues, [www.korrespondent.net](http://www.korrespondent.net)

- Nitsevych, A. (2005), 'Real estate in Ukraine', *Eastern Europe and CIS Review*, FiFo Ost, 3 February.
- Obozrevatel.com*, various issues, [www.obozrevatel.com.ua](http://www.obozrevatel.com.ua)
- OECD (1998), *Agricultural Policies in Emerging and Transition Economies. Monitoring and Evaluation*, 1998.
- OECD and World Bank (2004), *Achieving Ukraine's Agricultural Potential. Stimulating Agricultural Growth And Improving Rural Life*, jointly published by the Organization for Cooperation and Development (OECD) and the Environmentally and Socially Sustainable Development Unit, Europe and Central Asia Region, The World Bank, Washington DC.
- Pindyuk, O. (2006), 'Ukraine: foreign trade and industrial restructuring', INDEUNIS Website: [www.indeunis.wiwi.ac.at](http://www.indeunis.wiwi.ac.at)
- Recycling Today*, 15 January 2004, [www.recyclingtoday.com](http://www.recyclingtoday.com)
- Shiells, C. (2005), 'Optimal taxation of energy trade: the case of Russia and Ukraine', paper prepared for the ETSG 7<sup>th</sup> Annual Conference in Dublin, 8-10 September 2005, Joint Vienna Institute, August.
- Shumskiy, N. (2003), 'Ekonomicheskiy soyuz gosudarstv sodruzhestva: real'nost' i perspektivy', *Obschestvo i ekonomika*, No. 7-8, pp. 188-204.
- Stefan Batory Foundation (2005), 'Will the orange revolution bear fruit? EU-Ukraine relations in 2005 and the beginning of 2006', Warsaw, May.
- Tiusanen, T., O. Ivanova, D. Podmetina (2004), 'EU's new neighbours: the case of Ukraine', Lappeenranta University of Technology, Northern Dimension Research Centre, Publication No. 6.
- UNDP (2005), 'A new wave of reform: proposals for the president', Blue Ribbon Commission for Ukraine.
- UN ECE (2003), 'Economic Survey of Europe', Vol. 1, United Nations Economic Commission for Europe, Geneva.
- Vinhas de Souza, L., R. Schweickert, V. Movchan, O. Bilan and I. Burakovsky (2005), 'Now so near, and yet still so far: economic relations between Ukraine and the European Union', *Kiel Discussion Papers*, No. 419, April.
- wiiw (2005a), 'wiiw Database on Foreign Direct Investment in Central, East and Southeast Europe: Opportunities for Acquisition and Outsourcing', by G. Hunya (concept and analysis) and M. Schwarzhappel (database and layout), May.
- wiiw (2005b), *wiiw Handbook of Statistics 2005: Central, East and Southeast Europe*, The Vienna Institute for International Economic Studies, Vienna.
- World Bank (2004), *Ukraine Trade Policy Study – Volume I: Main Conclusions and Recommendations*, Report No. 29684-UA, The World Bank, Washington DC, 16 November.

## Appendix

Table A1

### Ukraine: gaining and losing industries in exports to the EU(15), 1995 - 2004

	Nace rev.1	Exports 2004 EUR mn	Average annual change in %	Absolute gain, 1995-04 EUR mn	Market share in the EU(15) 2004 in %
<b>30 biggest winners</b>					
Basic iron and steel, ferro-alloys (ECSC)	271	1341.1	20.0	908.1	6.68
Other wearing apparel and accessories	182	378.7	12.5	189.4	0.83
Vegetable and animal oils and fats	154	161.9	75.9	160.5	2.00
Refined petroleum and nuclear fuel	232	290.8	11.6	108.9	1.09
Sawmilling, planing and impregnation of wood	201	108.5	39.7	101.8	2.05
Other first processing of iron and steel	273	107.2	5.5	95.2	6.24
Coke oven products	231	89.5	63.0	87.6	4.25
Tubes	272	95.5	30.5	82.3	3.44
Electrical equipment n. e. c.	316	62.2	28.6	52.4	0.41
TV, radio and recording apparatus	323	48.0	47.7	45.6	0.16
Tanning and dressing of leather	191	68.5	10.3	37.0	3.02
Other chemical products	246	37.0	30.6	32.3	0.34
Panels and boards of wood	202	31.2	24.5	25.9	1.27
Footwear	193	51.1	12.6	24.2	0.46
Machinery for production, use of mech. power	291	33.9	19.0	23.2	0.17
Other fabricated metal products	287	34.5	16.8	21.6	0.32
Other textiles	175	22.9	40.1	21.6	0.68
Made-up textile articles	174	23.0	43.4	21.6	0.36
Fruits and vegetables	153	34.4	14.2	21.3	0.63
Furniture	361	30.4	20.9	21.1	0.22
Structural metal products	281	22.5	36.9	20.5	1.09
Sports goods	364	25.2	23.3	19.5	0.91
Domestic appliances n. e. c.	297	17.8	57.5	17.3	0.20
Jewellery and related articles	362	32.4	8.7	11.2	0.38
Knitted and crocheted articles	177	17.5	16.1	10.5	0.22
Ships and boats	351	23.1	13.8	10.3	0.24
Rubber products	251	14.6	18.9	9.9	0.18
Other products of wood; articles of cork, etc.	205	10.3	36.3	9.4	0.48
Office machinery and computers	300	10.2	27.0	8.4	0.02
Other special purpose machinery	295	12.4	16.8	8.2	0.09
<b>10 biggest losers</b>					
Cement, lime and plaster	265	0.0	-55.2	-5.8	0.00
Dairy products; ice cream	155	49.1	2.3	-6.4	3.47
Fish and fish products	152	0.1	-39.0	-7.6	0.00
Other food products	158	4.6	-9.8	-11.4	0.08
Textile fibres	171	0.6	-27.6	-12.6	0.02
Man-made fibres	247	6.0	-10.7	-13.6	0.30
Aircraft and spacecraft	353	118.0	3.9	-15.4	0.28
Meat products	151	35.9	-4.2	-27.3	0.64
Basic precious and non-ferrous metals	274	79.0	-1.4	-31.9	0.23
Basic chemicals	241	213.8	1.9	-37.8	0.56
<b>Manufacturing industry</b>	<b>Total</b>	<b>3899.8</b>	<b>13.2</b>	<b>2098.0</b>	<b>0.46</b>
<b>Exports</b>	<b>Total</b>	<b>4587.0</b>	<b>12.8</b>	<b>.</b>	<b>0.42</b>

Source: wiiw calculations based on COMEXT Database.

Table A2

### Revealed comparative advantages in trade with the EU-15

HS	Product Name	RCA							RCA change
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
01	Live animals	-0.87	-0.93	-0.90	-0.87	-0.95	-0.91	-0.65	0.118
02	Meat and edible meat offal	-0.93	-0.83	-1.00	-0.97	-0.87	-1.00	-1.00	-0.116
03	Fish & crustacean, mollusc & other	0.03	0.52	0.75	0.42	0.34	-0.23	-0.77	-0.773
04	Dairy prod; birds' eggs; natural honey; edible	0.04	0.06	0.24	0.30	0.84	0.90	-0.41	0.191
05	Products of animal origin, nes or included	-0.74	-0.73	-0.65	-0.76	0.02	0.77	0.76	1.496
06	Live tree & other plant; bulb, root; cut flowers	-0.98	-1.00	-1.00	-1.00	-1.00	-0.99	-1.00	-0.005
07	Edible vegetables and certain roots and tubers	0.58	0.88	0.85	0.72	0.03	0.68	0.66	-0.061
08	Edible fruit and nuts; peel of citrus fruit	-0.81	-0.47	-0.15	-0.34	0.12	0.07	0.60	0.973
09	Coffee, tea, matn and spices.	-0.94	-0.94	-0.96	-0.94	-0.82	-0.93	-0.91	0.022
10	Cereals	0.58	0.33	0.90	0.93	0.05	0.86	0.96	0.458
11	Prod.mill.indust; malt; starches;	-0.34	-0.85	-0.78	-0.77	-0.88	-0.90	-0.78	-0.245
12	Oil seed, oleagi fruits; miscell grain, seed	0.61	0.83	0.71	0.71	0.85	0.80	0.27	-0.185
13	Lac; gums, resins & other vegetable saps	-0.99	-1.00	-0.98	-1.00	-0.98	-1.00	-1.00	-0.006
14	Vegetable plaiting materials; vegetable products	-0.76	-1.00	.	-0.94	0.01	1.00	0.94	1.852
15	Animal/veg fats & oils & their cleavage products	0.03	-0.54	-0.53	-0.65	-0.02	-0.17	0.26	0.301
16	Prep of meat, fish or crustaceans, molluscs	-0.42	0.07	-0.69	-1.00	-1.00	-0.66	0.05	-0.127
17	Sugars and sugar confectionery.	-0.94	-0.53	-0.86	0.16	-0.78	0.16	-0.03	0.800
18	Cocoa and cocoa preparations.	-0.99	-0.99	-0.99	-0.95	-0.95	-0.89	-0.91	0.089
19	Prep.of cereal, flour, starch/milk; pastrycook	-0.99	-0.99	-0.96	-0.83	-0.72	-0.65	-0.52	0.406
20	Prep of vegetable, fruit, nuts or other parts	0.08	0.21	0.13	0.53	0.48	0.22	0.17	0.054
21	Miscellaneous edible preparations.	-1.00	-0.98	-0.99	-0.97	-0.99	-1.00	-0.99	-0.008
22	Beverages, spirits and vinegar.	-0.54	-0.67	-0.80	-0.39	-0.60	-0.29	0.13	0.527
23	Residues & waste from the food industries	-0.39	-0.21	-0.37	-0.60	-0.07	-0.36	-0.71	-0.241
24	Tobacco and manufactured tobacco substitutes	-1.00	-0.94	-1.00	-1.00	-0.99	-0.96	-1.00	-0.008
25	Salt; sulphur; earth & ston; plastering mat	0.48	0.68	0.65	0.79	0.89	0.88	0.82	0.271
26	Ores, slag and ash.	0.99	0.99	0.99	0.94	0.65	0.81	0.89	-0.144
27	Mineral fuels, oils & product of their distillation	0.46	-0.24	0.28	0.37	0.20	0.77	0.90	0.724
28	Inorgn chem; compds of prec mtl, radioactive elements	0.78	0.70	0.76	0.77	0.80	0.79	0.71	0.011
29	Organic chemicals.	-0.19	0.13	-0.18	-0.25	-0.31	-0.21	-0.16	-0.155
30	Pharmaceutical products.	-0.93	-1.00	-1.00	-1.00	-0.99	-1.00	-1.00	-0.032

Table A2 contd.

Table A2 (contd.)

HS	Product Name	RCA								RCA change 01-02 over 96-97
		1996	1997	1998	1999	2000	2001	2002		
31	Fertilizers	0.98	0.88	0.98	0.99	0.99	0.99	0.86	-0.009	
32	Tanning/dyeing extract; tannins & derivs	-0.86	-0.89	-0.81	-0.68	-0.64	-0.65	-0.70	0.200	
33	Essential oils & resinoids; perf.	-0.93	-0.95	-0.85	-0.89	-0.88	-0.94	-0.83	0.054	
34	Soap, organic surface-active agents	-0.98	-0.99	-0.94	-0.96	-0.99	-0.99	-0.99	-0.004	
35	Albuminoidal subs; modified starches; glues	0.58	0.39	0.52	0.45	0.64	0.48	0.18	-0.154	
36	Explosives; pyrotechnic prod; matches	0.37	-0.85	-0.87	-0.81	0.17	-0.20	-0.07	0.103	
37	Photographic or cinematographic goods	-1.00	-0.88	-0.98	-0.99	-0.99	-0.99	-0.99	-0.048	
38	Miscellaneous chemical products.	-0.95	-0.91	-0.89	-0.83	-0.84	-0.81	-0.73	0.158	
39	Plastics and articles thereof.	-0.74	-0.86	-0.78	-0.95	-0.94	-0.94	-0.90	-0.118	
40	Rubber and articles thereof.	-0.83	-0.88	-0.84	-0.81	-0.90	-0.79	-0.73	0.094	
41	Raw hides and skins (other than furskins)	0.60	0.63	0.44	0.37	0.51	0.43	0.46	-0.167	
42	Articles of leather; saddlery/harness	-0.35	-0.29	-0.05	0.57	0.55	0.42	0.50	0.782	
43	Furskins and artificial fur; manuf	-0.36	-0.21	-0.34	-0.27	-0.26	-0.28	-0.14	0.078	
44	Wood and articles of wood; wood charcoal	0.03	0.02	0.39	0.77	0.79	0.72	0.73	0.705	
45	Cork and articles of cork.	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.000	
46	Manufactures of straw, esparto/other plaiting	-1.00	0.03	-1.00	-0.81	0.25	-0.94	-0.13	-0.046	
47	Pulp of wood/of other fibrous cellulosic material	-1.00	-1.00	-0.98	-0.96	-0.89	-0.96	-0.88	0.079	
48	Paper & paperboard; art of paper pulp	-0.98	-0.99	-0.98	-0.98	-0.97	-0.99	-0.99	-0.002	
49	Printed books, newspapers, pictures	-0.88	-0.95	-0.97	-0.79	-0.96	-0.96	-0.97	-0.052	
50	Silk.	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.000	
51	Wool, fine/coarse animal hair, horsehair	-0.82	-0.83	-0.94	-0.95	-0.97	-0.96	-0.99	-0.153	
52	Cotton.	-0.81	-0.79	-0.86	-0.98	-0.93	-0.97	-1.00	-0.187	
53	Other vegetable textile fibres; paper yarn	-0.77	-0.76	-0.79	-0.82	-0.93	-0.88	-0.59	0.027	
54	Man-made filaments.	-0.84	-0.69	-0.40	-0.62	-0.60	-0.74	-0.71	0.043	
55	Man-made staple fibres.	-0.88	-0.94	-0.98	-0.99	-0.99	-0.99	-0.98	-0.074	
56	Wadding, felt & nonwoven; yarns; twine	-0.63	-0.32	-0.01	-0.32	-0.13	-0.37	-0.22	0.180	
57	Carpets and other textile floor coverings	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.000	
58	Special woven fab; tufted tex fab; lace	-1.00	-1.00	-0.97	-1.00	-1.00	-1.00	-1.00	-0.001	
59	Impregnated, coated, cover/laminated textile	-0.96	-0.99	-0.98	-0.99	-0.99	-1.00	-1.00	-0.022	
60	Knitted or crocheted fabrics.	-0.97	-0.98	-1.00	-1.00	-1.00	-1.00	-1.00	-0.021	
61	Art of apparel & clothing access, knitted	0.22	0.25	0.45	0.69	0.66	0.73	0.68	0.466	
62	Art of apparel & clothing access, not knitted	0.82	0.85	0.86	0.90	0.91	0.92	0.92	0.086	
63	Other made up textile articles; sets	-0.86	-0.57	-0.35	-0.31	-0.12	-0.01	-0.15	0.634	

Table A2 contd.

Table A2 (contd.)

HS	Product Name	RCA							RCA change
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
64	Footwear, gaiters and the like; parts	-0.05	0.26	0.52	0.62	0.65	0.68	0.68	0.581
65	Headgear and parts thereof	0.40	0.58	0.10	0.43	0.59	0.37	0.64	0.017
66	Umbrellas, walking-sticks, seat-sticks, whips	-0.98	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-0.009
67	Prepr feathers & down; arti flower;	-0.96	-0.86	-0.97	-1.00	-1.00	-1.00	-1.00	-0.090
68	Art of stone, plaster, cement, asbestos	-0.87	-0.83	-0.91	-0.86	-0.79	-0.86	-0.83	0.004
69	Ceramic products.	-0.98	-0.95	-0.93	-0.89	-0.87	-0.87	-0.88	0.090
70	Glass and glassware.	-0.84	-0.74	-0.56	-0.49	-0.33	-0.16	-0.09	0.661
71	Natural, cultured pearls, precious stones and metals	.	.	.	.	.	.	.	.
72	Iron and steel.	0.50	0.78	0.85	0.94	0.63	0.81	0.89	0.207
73	Articles of iron or steel.	-0.18	-0.20	0.03	0.11	0.03	-0.06	0.03	0.176
74	Copper and articles thereof.	0.40	0.84	0.71	0.79	0.74	0.79	0.85	0.194
75	Nickel and articles thereof.	-1.00	-0.89	0.29	-0.66	-0.98	-0.69	-0.97	0.120
76	Aluminium and articles thereof.	0.16	0.39	0.60	0.70	0.67	0.50	0.03	-0.006
78	Lead and articles thereof.	-1.00	0.75	0.91	0.79	0.73	0.34	-0.62	-0.010
79	Zinc and articles thereof.	-1.00	-0.74	-0.53	-0.13	0.73	-0.03	0.45	1.084
80	Tin and articles thereof.	-1.00	-1.00	-1.00	-1.00	-1.00	-0.98	-1.00	0.009
81	Other base metals; cermets; articles thereof	0.93	0.94	0.91	0.92	0.97	0.97	0.96	0.027
82	Tool, implement, cutlery, spoon & fork	-0.94	-0.89	-0.86	-0.83	-0.89	-0.51	-0.88	0.220
83	Miscellaneous articles of base metal	-0.92	-0.96	-0.94	-0.94	-0.97	-0.97	-0.96	-0.023
84	Nuclear reactors, boilers, mchy & mech appliances	-0.88	-0.88	-0.82	-0.80	-0.80	-0.49	-0.63	0.316
85	Electrical mchy equip parts thereof	-0.70	-0.72	-0.73	-0.66	-0.64	-0.59	-0.73	0.043
86	Railw/tramw locom, rolling-stock & parts thereof	0.02	0.03	-0.37	0.15	0.33	0.52	0.39	0.429
87	Vehicles o/t railw/tramw roll-stock	-0.98	-0.99	-0.97	-0.90	-0.93	-0.96	-0.97	0.017
88	Aircraft, spacecraft, and parts thereof	0.97	-0.93	0.31	0.04	0.78	0.88	0.68	0.761
89	Ships, boats and floating structures	0.98	0.96	0.92	0.97	0.29	0.97	0.87	-0.051
90	Optical, photo, cine, meas, checking	-0.96	-0.98	-0.98	-0.94	-0.86	-0.85	-0.27	0.412
91	Clocks and watches and parts thereof	-1.00	-1.00	-1.00	-0.93	-0.98	-1.00	-1.00	-0.002
92	Musical instruments	-0.13	0.40	-0.24	-0.57	-0.43	-0.62	-0.80	-0.843
93	Arms and ammunition	.	.	.	.	.	.	.	.
94	Furniture; bedding, mattress, matt support	-0.73	-0.68	-0.60	-0.43	-0.26	-0.34	-0.17	0.449
95	Toys, games & sports requisites; parts	-0.61	0.01	0.31	0.55	0.55	0.49	0.20	0.643
96	Miscellaneous manufactured articles	-0.96	-0.96	-0.96	-0.97	-0.99	-1.00	-1.00	-0.033
97	Works of art, collectors' pieces and antiques	-0.05	-0.90	-0.90	-0.67	-0.94	-0.81	-0.61	-0.235
	<b>Total (calculated)</b>	<b>-0.28</b>	<b>-0.31</b>	<b>-0.19</b>	<b>-0.06</b>	<b>-0.08</b>	<b>-0.06</b>	<b>-0.06</b>	<b>0.232</b>

Source: Own calculations based on COMTRADE data.



Table A3

## Revealed comparative advantages in trade with Poland

HS	Product Name	RCA						RCA change	
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
01	Live animals	-0.96	-0.89	-0.90	-0.79	-0.84	-0.94	-0.96	-0.027
02	Meat and edible meat offal	-0.74	-0.85	-0.95	-0.96	-0.63	-0.99	-0.97	-0.185
03	Fish & crustacean, mollusc & other	-0.84	-0.49	0.65	0.76	0.95	0.76	0.88	1.488
04	Dairy prod; birds' eggs; natural honey; edible	0.94	0.83	0.59	0.08	0.30	0.60	0.75	-0.211
05	Products of animal origin, nes or included	0.79	0.84	0.94	0.96	0.97	0.99	0.98	0.168
06	Live tree & other plant; bulb, root; cut flowers	-1.00	-0.10	-0.83	-0.99	-0.94	-0.99	-1.00	-0.444
07	Edible vegetables and certain roots and tubers	-0.60	0.50	0.39	0.00	-0.02	-0.04	-0.76	-0.354
08	Edible fruit and nuts; peel of citrus fruit	0.20	0.70	0.18	0.65	0.76	0.68	0.74	0.264
09	Coffee, tea, matn and spices.	-0.99	-0.54	-0.79	-0.87	-0.90	-1.00	-1.00	-0.234
10	Cereals	1.00	0.97	0.92	0.82	0.24	0.99	0.99	0.005
11	Prod.mill.indust; malt; starches;	0.54	-0.48	-0.50	0.20	-0.62	-0.07	-0.48	-0.304
12	Oil seed, oleagi fruits; miscell grain, seed	0.77	0.60	0.47	0.11	0.34	0.66	0.00	-0.359
13	Lac; gums, resins & other vegetable saps	0.27	0.68	0.57	0.89	0.88	0.99	0.58	0.306
14	Vegetable plaiting materials; vegetable products	.	-1.00	.	.	-1.00	1.00	1.00	.
15	Animal/veg fats & oils & their cleavage products	0.80	-0.06	-0.78	-0.96	0.68	0.84	0.80	0.455
16	Prep of meat, fish or crustaceans, molluscs	-1.00	-0.49	-1.00	-1.00	-1.00	-0.97	-1.00	-0.239
17	Sugars and sugar confectionery.	-0.39	0.16	-0.55	-1.00	-1.00	-0.39	-0.51	-0.335
18	Cocoa and cocoa preparations.	-0.91	-1.00	-0.99	-0.98	-1.00	-1.00	-1.00	-0.045
19	Prep.of cereal, flour, starch/milk; pastrycook	-1.00	-1.00	-0.98	-1.00	-0.84	-0.66	-0.10	0.621
20	Prep of vegetable, fruit, nuts or other parts	-1.00	-0.93	-0.79	-0.45	-0.90	-0.91	-0.84	0.091
21	Miscellaneous edible preparations.	-1.00	-0.99	-0.57	-1.00	-1.00	-0.72	-0.92	0.177
22	Beverages, spirits and vinegar.	-0.40	-0.51	-0.67	0.75	0.60	0.35	0.99	1.126
23	Residues & waste from the food industries	0.74	0.64	1.00	0.26	0.94	0.61	0.37	-0.205
24	Tobacco and manufactured tobacco substitutes	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-0.68	0.160
25	Salt; sulphur; earth & ston; plastering mat	0.23	0.12	0.34	0.63	0.50	0.26	0.45	0.180
26	Ores, slag and ash.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.000
27	Mineral fuels, oils & product of their distillation	-0.65	-0.38	-0.60	0.42	0.15	0.42	0.48	0.966
28	Inorgn chem; compds of prec mtl, radioactive elements	0.02	-0.41	-0.29	0.10	0.20	0.11	0.39	0.443
29	Organic chemicals.	0.68	0.88	0.90	0.76	0.82	0.68	0.58	-0.151
30	Pharmaceutical products.	-0.94	-0.96	-0.88	-0.90	-0.90	-0.89	-0.91	0.049

Table A3 contd.

Table A3 (contd.)

HS	Product Name	RCA								RCA change 01-02 over 96-97
		1996	1997	1998	1999	2000	2001	2002		
31	Fertilizers	0.85	0.90	0.56	0.44	0.83	0.97	0.99	0.105	
32	Tanning/dyeing extract; tannins & derivs	-0.73	-0.80	-0.93	-0.88	-0.82	-0.76	-0.91	-0.069	
33	Essential oils & resinoids; perf.	-0.94	-1.00	-0.99	-0.91	-0.98	-1.00	-1.00	-0.026	
34	Soap, organic surface-active agents	-0.88	-1.00	-0.98	-0.99	-0.97	-0.91	-0.44	0.266	
35	Albuminoidal subs; modified starches; glues	0.89	0.78	0.80	0.84	0.90	0.93	0.87	0.069	
36	Explosives; pyrotechnic prod; matches	-1.00	-1.00	-0.65	-1.00	-1.00	-1.00	-1.00	0.000	
37	Photographic or cinematographic goods	-1.00	-1.00	-0.19	-1.00	0.84	0.95	0.95	1.954	
38	Miscellaneous chemical products.	-0.95	-0.96	-0.99	-0.79	-0.54	-0.85	-0.83	0.120	
39	Plastics and articles thereof.	-0.77	-0.79	-0.72	-0.92	-0.80	-0.65	-0.73	0.083	
40	Rubber and articles thereof.	-0.86	-0.79	-0.73	-0.68	-0.73	-0.67	-0.41	0.281	
41	Raw hides and skins (other than furskins)	0.91	0.60	0.14	0.29	0.30	0.44	0.72	-0.178	
42	Articles of leather; saddlery/harness	-1.00	-0.98	-1.00	-1.00	-0.95	-1.00	0.84	0.910	
43	Furskins and artificial fur; manuf	-0.18	-1.00	-1.00	-1.00	0.20	-0.74	-1.00	-0.281	
44	Wood and articles of wood; wood charcoal	-0.36	-0.42	-0.38	-0.10	0.05	0.00	-0.03	0.379	
45	Cork and articles of cork.	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.000	
46	Manufactures of straw, esparto/other plaiting	.	-1.00	-1.00	-1.00	-1.00	.	-1.00	.	
47	Pulp of wood/of other fibrous cellulosic material	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.000	
48	Paper & paperboard; art of paper pulp	-0.91	-0.94	-0.88	-0.87	-0.89	-0.93	-0.97	-0.023	
49	Printed books, newspapers, pictures	-0.79	-0.85	-1.00	-0.89	-0.93	-0.98	-0.99	-0.169	
50	Silk.	-1.00	-1.00	-1.00	.	.	.	.	.	
51	Wool, fine/coarse animal hair, horsehair	-0.10	0.08	-0.34	-0.03	-0.63	0.29	0.17	0.243	
52	Cotton.	-0.31	-0.35	-0.17	0.30	-0.88	-0.99	0.67	0.170	
53	Other vegetable textile fibres; paper yarn	0.65	0.88	0.30	-0.85	-0.88	-1.00	0.17	-1.182	
54	Man-made filaments.	-0.05	-0.39	0.22	-0.87	-0.64	-0.22	0.54	0.377	
55	Man-made staple fibres.	-0.97	-0.97	-0.97	-0.99	-0.86	-0.94	0.30	0.652	
56	Wadding, felt & nonwoven; yarns; twine	-0.89	-0.43	-0.58	-0.14	-0.32	-0.59	-0.49	0.125	
57	Carpets and other textile floor coverings	-1.00	-1.00	-0.42	-1.00	-1.00	-1.00	-1.00	0.000	
58	Special woven fab; tufted tex fab; lace	-1.00	-0.98	-0.68	-1.00	-0.97	-0.81	-0.46	0.352	
59	Impregnated, coated, cover/laminated textile	-0.99	-0.98	-1.00	-1.00	-1.00	-1.00	-1.00	-0.015	
60	Knitted or crocheted fabrics.	-0.88	-0.60	-1.00	-1.00	-1.00	-1.00	-1.00	-0.263	
61	Art of apparel & clothing access, knitted	-0.55	-0.41	-0.84	-0.56	-0.02	0.21	0.33	0.750	
62	Art of apparel & clothing access, not knitted	0.21	-0.25	0.43	0.86	0.82	0.74	0.62	0.697	
63	Other made up textile articles; sets	-0.97	-0.96	-0.97	-0.84	-0.74	-0.56	-0.67	0.351	

Table A3 contd.

Table A3 (contd.)

HS	Product Name	RCA							RCA change
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
64	Footwear, gaiters and the like; parts	-0.85	-0.75	-0.95	-0.75	-0.24	0.21	-0.40	0.709
65	Headgear and parts thereof	-1.00	0.30	0.69	-0.59	0.09	-1.00	0.11	-0.095
66	Umbrellas, walking-sticks, seat-sticks, whips	-1.00	-0.95	-1.00	-1.00	-1.00	-1.00	-1.00	-0.027
67	Prepr feathers & down; arti flower;	-0.96	-1.00	-1.00	-1.00	-1.00	1.00	0.60	1.777
68	Art of stone, plaster, cement, asbestos	-0.95	-0.95	-0.95	-0.91	-0.91	-0.96	-0.96	-0.010
69	Ceramic products.	-0.99	-0.95	-0.91	-0.82	-0.55	-0.73	-0.90	0.156
70	Glass and glassware.	-0.65	-0.80	-0.70	-0.36	-0.39	-0.38	-0.60	0.232
71	Natural, cultured pearls, precious stones and metals	.	.	.	.	.	.	.	.
72	Iron and steel.	0.49	0.50	0.80	0.85	0.83	0.79	0.72	0.260
73	Articles of iron or steel.	-0.30	-0.45	-0.31	-0.16	-0.06	-0.40	-0.02	0.163
74	Copper and articles thereof.	-0.53	-0.38	-0.73	-0.92	0.00	-0.77	-0.84	-0.349
75	Nickel and articles thereof.	-1.00	.	-1.00	-1.00	-0.97	-0.99	-1.00	.
76	Aluminium and articles thereof.	-0.84	-0.33	-0.65	-0.07	-0.26	-0.58	-0.49	0.050
78	Lead and articles thereof.	-1.00	-1.00	-0.98	-0.99	-1.00	-0.82	-0.70	0.240
79	Zinc and articles thereof.	-1.00	-1.00	-0.99	-0.97	-1.00	-1.00	-1.00	0.001
80	Tin and articles thereof.	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.000
81	Other base metals; cermets; articles thereof	1.00	0.82	0.12	-0.88	-0.78	-1.00	-0.56	-1.690
82	Tool, implement, cutlery, spoon & fork	-0.91	-0.87	-0.42	-0.74	-0.86	-0.73	-0.80	0.129
83	Miscellaneous articles of base metal	-1.00	-0.99	-0.86	-0.70	-0.87	-0.86	-0.91	0.109
84	Nuclear reactors, boilers, mchy & mech appliances	-0.60	-0.67	-0.77	-0.57	-0.61	-0.51	-0.25	0.256
85	Electrical mchy equip parts thereof	-0.42	-0.63	-0.65	-0.25	-0.63	-0.51	-0.11	0.219
86	Railw/tramw locom, rolling-stock & parts thereof	-0.87	0.93	0.41	0.85	-0.34	-0.89	0.03	-0.459
87	Vehicles o/t railw/tramw roll-stock	-0.02	-0.13	-0.78	0.20	-0.63	-0.51	-0.87	-0.613
88	Aircraft, spacecraft, and parts thereof	0.11	-0.47	0.58	0.14	0.98	0.46	-0.07	0.375
89	Ships, boats and floating structures	.	-1.00	-1.00	0.65	0.45	0.91	-0.90	.
90	Optical, photo, cine, meas, checking	-0.96	-0.32	-0.94	-0.84	-0.83	-0.28	-0.93	0.032
91	Clocks and watches and parts thereof	-1.00	-0.94	-1.00	-1.00	-1.00	-1.00	-0.58	0.180
92	Musical instruments	.	-1.00	.	-1.00	-1.00	.	1.00	.
93	Arms and ammunition	.	.	.	.	.	.	.	.
94	Furniture; bedding, mattress, matt support	-0.93	-0.93	-0.87	-0.82	-0.77	-0.77	-0.69	0.201
95	Toys, games & sports requisites; parts	-0.46	-0.70	-0.55	0.09	-0.42	-0.57	-0.44	0.076
96	Miscellaneous manufactured articles	-0.99	-1.00	-0.98	-0.96	-0.95	-0.95	-0.90	0.071
97	Works of art, collectors' pieces and antiques	-1.00	-0.83	-1.00	.	.	-1.00	1.00	0.916
	<b>Total (calculated)</b>	<b>-0.17</b>	<b>-0.18</b>	<b>-0.21</b>	<b>0.08</b>	<b>0.15</b>	<b>0.05</b>	<b>-0.03</b>	<b>0.187</b>

Source: Own calculations based on COMTRADE data.

Table A4

### Revealed comparative advantages in trade with Hungary

HS	Product Name	RCA							RCA change
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
01	Live animals	-0.97	-0.88	-0.96	-1.00	-1.00	-1.00	-0.96	-0.050
02	Meat and edible meat offal	-1.00	-0.61	-1.00	-0.96	-0.88	-0.98	-1.00	-0.186
03	Fish & crustacean, mollusc & other	0.92	1.00	1.00	0.99	1.00	1.00	1.00	0.039
04	Dairy prod; birds' eggs; natural honey; edible	0.71	0.65	-0.42	-0.07	0.26	-0.28	-0.63	-1.134
05	Products of animal origin, nes or included	0.26	1.00	1.00	1.00	1.00	1.00	1.00	0.372
06	Live tree & other plant; bulb, root; cut flowers	0.13	-0.90	-0.95	-1.00	-1.00	-1.00	-1.00	-0.612
07	Edible vegetables and certain roots and tubers	-1.00	-1.00	-0.23	-1.00	-1.00	-0.67	0.98	1.154
08	Edible fruit and nuts; peel of citrus fruit	0.52	0.72	0.83	0.57	1.00	0.39	1.00	0.076
09	Coffee, tea, matn and spices.	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.000
10	Cereals	-0.37	-0.98	0.79	0.82	-0.97	0.74	0.87	1.478
11	Prod.mill.indust; malt; starches;	-0.92	-0.99	-0.97	-0.98	-0.99	-0.89	0.43	0.723
12	Oil seed, oleagi fruits; miscell grain, seed	0.53	0.79	0.14	0.16	0.91	0.91	0.50	0.046
13	Lac; gums, resins & other vegetable saps	0.06	-1.00	-1.00	.	1.00	.	1.00	.
14	Vegetable plaiting materials; vegetable products	.	.	.	1.00	1.00	1.00	1.00	.
15	Animal/veg fats & oils & their cleavage products	-0.04	0.17	0.98	0.18	0.99	0.26	0.56	0.346
16	Prep of meat, fish or crustaceans, molluscs	-1.00	-1.00	-1.00	-1.00	-1.00	-0.95	.	.
17	Sugars and sugar confectionery.	-0.35	-0.75	-0.97	-1.00	-1.00	0.83	0.75	1.343
18	Cocoa and cocoa preparations.	-1.00	-1.00	-1.00	0.32	0.73	-1.00	-1.00	0.000
19	Prep.of cereal, flour, starch/milk; pastrycook	-1.00	-0.99	-0.98	-1.00	-1.00	-1.00	-1.00	-0.003
20	Prep of vegetable, fruit, nuts or other parts	-0.96	-0.92	-0.69	-1.00	-0.50	-1.00	-0.99	-0.053
21	Miscellaneous edible preparations.	0.46	-1.00	0.19	-1.00	-1.00	-1.00	-1.00	-0.730
22	Beverages, spirits and vinegar.	-0.88	-0.81	-0.99	-0.92	-0.15	-0.36	-0.11	0.614
23	Residues & waste from the food industries	-0.47	-0.95	-0.92	-0.36	-0.12	-0.25	-0.35	0.408
24	Tobacco and manufactured tobacco substitutes	-0.60	-1.00	-0.98	-1.00	-0.53	-1.00	-1.00	-0.201
25	Salt; sulphur; earth & ston; plastering mat	0.96	0.94	0.94	0.99	1.00	0.99	1.00	0.045
26	Ores, slag and ash.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	-0.002
27	Mineral fuels, oils & product of their distillation	0.88	0.91	0.92	0.94	0.76	0.97	0.98	0.077
28	Inorgn chem; compds of prec mtl, radioactive elements	0.96	0.61	0.62	0.78	0.61	0.30	0.76	-0.255
29	Organic chemicals.	0.93	0.95	0.93	0.93	0.85	0.81	0.89	-0.087
30	Pharmaceutical products.	-1.00	-0.99	-0.99	-1.00	-0.99	-1.00	-1.00	-0.004

Table A4 contd.

Table A4 (contd.)

HS	Product Name	RCA								RCA change 01-02 over 96-97
		1996	1997	1998	1999	2000	2001	2002		
31	Fertilizers	1.00	1.00	1.00	0.99	1.00	1.00	1.00	-0.002	
32	Tanning/dyeing extract; tannins & derivs	-0.64	-0.66	-0.78	-0.73	-0.73	-0.97	-0.82	-0.247	
33	Essential oils & resinoids; perf.	-0.96	-1.00	-1.00	-0.91	-0.86	-1.00	-0.99	-0.016	
34	Soap, organic surface-active agents	-0.25	-0.34	-0.17	-0.80	-1.00	-1.00	-0.88	-0.648	
35	Albuminoidal subs; modified starches; glues	0.68	0.69	0.87	0.76	0.92	0.96	0.20	-0.110	
36	Explosives; pyrotechnic prod; matches	0.36	-1.00	.	1.00	0.55	-0.04	-1.00	-0.200	
37	Photographic or cinematographic goods	-1.00	-1.00	-1.00	-1.00	-1.00	.	0.47	.	
38	Miscellaneous chemical products.	-0.07	-0.53	-0.51	-0.03	-0.53	-0.92	-0.68	-0.503	
39	Plastics and articles thereof.	-0.80	-0.88	-0.84	-0.82	-0.68	-0.48	-0.23	0.490	
40	Rubber and articles thereof.	0.23	0.29	0.21	0.61	-0.08	-0.37	0.27	-0.312	
41	Raw hides and skins (other than furskins)	0.92	0.77	-0.06	-0.59	0.16	0.41	-0.97	-1.124	
42	Articles of leather; saddlery/harness	-1.00	-0.59	-1.00	-0.09	-1.00	-1.00	-0.96	-0.185	
43	Furskins and artificial fur; manuf	.	-1.00	-0.98	-1.00	.	-1.00	-1.00	.	
44	Wood and articles of wood; wood charcoal	0.79	0.76	0.79	0.83	0.79	0.73	0.80	-0.015	
45	Cork and articles of cork.	-1.00	-0.99	-1.00	-1.00	-1.00	-1.00	-1.00	-0.003	
46	Manufactures of straw, esparto/other plaiting	-1.00	.	.	.	.	.	.	.	
47	Pulp of wood/of other fibrous cellulosic material	-0.99	-0.96	-1.00	-1.00	-1.00	-0.95	-1.00	-0.002	
48	Paper & paperboard; art of paper pulp	-0.90	-0.91	-0.78	-0.85	-0.84	-0.75	-0.88	0.090	
49	Printed books, newspapers, pictures	-0.98	-0.74	-0.59	-0.59	-0.11	-0.80	-0.84	0.039	
50	Silk.	-1.00	-1.00	-0.53	-1.00	-1.00	-1.00	.	.	
51	Wool, fine/coarse animal hair, horsehair	-0.19	-0.76	-0.77	-0.76	-0.95	-0.99	-1.00	-0.521	
52	Cotton.	0.04	0.02	-0.25	-0.50	-0.15	-0.48	-0.07	-0.301	
53	Other vegetable textile fibres; paper yarn	-0.96	-1.00	-0.95	-1.00	-1.00	-0.87	0.37	0.733	
54	Man-made filaments.	-0.52	-0.55	-0.83	-0.76	-0.86	-0.84	-0.72	-0.244	
55	Man-made staple fibres.	-0.85	-0.87	-0.46	-0.35	-0.82	-0.95	-1.00	-0.118	
56	Wadding, felt & nonwoven; yarns; twine	-0.55	-0.95	-0.93	-1.00	-1.00	-0.04	-0.74	0.362	
57	Carpets and other textile floor coverings	-1.00	0.11	-1.00	-1.00	-1.00	-1.00	-1.00	-0.557	
58	Special woven fab; tufted tex fab; lace	-1.00	-0.97	-0.81	-1.00	-1.00	-1.00	-1.00	-0.016	
59	Impregnated, coated, cover/laminated textile	-0.97	-0.97	0.81	-1.00	-1.00	-1.00	-0.52	0.207	
60	Knitted or crocheted fabrics.	-0.94	-0.98	-0.96	-1.00	-0.76	-0.81	-1.00	0.052	
61	Art of apparel & clothing access, knitted	-0.80	-0.87	0.15	0.08	0.08	0.23	0.54	1.215	
62	Art of apparel & clothing access, not knitted	0.63	0.85	0.77	0.97	0.96	0.96	0.95	0.215	
63	Other made up textile articles; sets	0.71	0.80	0.33	0.79	-0.43	-0.90	-0.68	-1.541	

Table A4 contd.

Table A4 (contd.)

HS	Product Name	RCA							RCA change
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
64	Footwear, gaiters and the like; parts	-0.63	0.19	0.82	0.81	0.88	0.88	0.82	1.070
65	Headgear and parts thereof	-0.70	1.00	1.00	-1.00	.	1.00	-1.00	-0.152
66	Umbrellas, walking-sticks, seat-sticks, whips	-1.00	-1.00	-1.00	.	-1.00	-1.00	-1.00	0.000
67	Prepr feathers & down; arti flower;	-1.00	-1.00	-1.00	.	.	1.00	1.00	2.000
68	Art of stone, plaster, cement, asbestos	0.75	0.48	0.85	0.65	0.89	0.96	0.96	0.349
69	Ceramic products.	-0.98	-0.99	-0.99	-0.99	-0.70	-0.96	0.34	0.676
70	Glass and glassware.	-0.69	-0.80	-0.86	-0.29	-0.51	0.15	-0.42	0.612
71	Natural, cultured pearls, precious stones and metals	.	.	.	.	.	.	.	.
72	Iron and steel.	0.98	0.92	0.95	0.96	0.92	0.81	0.94	-0.078
73	Articles of iron or steel.	-0.03	-0.14	0.02	-0.43	0.25	0.17	-0.01	0.167
74	Copper and articles thereof.	-0.34	-0.07	-0.44	0.61	-0.28	0.67	0.96	1.018
75	Nickel and articles thereof.	.	.	.	.	.	.	.	.
76	Aluminium and articles thereof.	0.93	0.91	0.93	0.92	0.88	0.86	0.93	-0.020
78	Lead and articles thereof.	.	.	.	.	.	.	1.00	.
79	Zinc and articles thereof.	-1.00	-1.00	-1.00	-1.00	-1.00	0.75	0.43	1.591
80	Tin and articles thereof.	.	.	.	.	.	-1.00	-1.00	.
81	Other base metals; cermets; articles thereof	1.00	1.00	0.65	1.00	1.00	1.00	.	.
82	Tool, implement, cutlery, spoon & fork	0.04	-0.59	-0.14	-0.72	-0.38	0.00	0.03	0.287
83	Miscellaneous articles of base metal	-1.00	-0.75	-0.99	-0.96	-1.00	-0.98	-0.82	-0.024
84	Nuclear reactors, boilers, mchy & mech appliances	-0.62	-0.53	-0.56	0.08	0.04	0.72	0.06	0.964
85	Electrical mchy equip parts thereof	-0.71	-0.66	-0.61	-0.50	-0.35	0.36	0.43	1.080
86	Railw/tramw locom, rolling-stock & parts thereof	-0.90	-0.58	-0.69	-0.90	0.68	-0.38	-0.29	0.403
87	Vehicles o/t railw/tramw roll-stock	-0.52	-0.58	-0.41	0.07	-0.25	-0.55	-0.67	-0.065
88	Aircraft, spacecraft, and parts thereof	1.00	0.93	0.71	1.00	1.00	1.00	-0.33	-0.631
89	Ships, boats and floating structures	.	-1.00	0.99	.	-0.95	-1.00	-1.00	.
90	Optical, photo, cine, meas, checking	-0.93	-0.99	-0.98	-0.95	-0.65	0.34	0.69	1.474
91	Clocks and watches and parts thereof	-1.00	-1.00	-1.00	.	.	-1.00	.	.
92	Musical instruments	0.69	-0.97	0.62	0.98	1.00	1.00	1.00	1.140
93	Arms and ammunition	.	.	.	.	.	.	.	.
94	Furniture; bedding, mattress, matt support	-0.92	-0.68	-0.47	-0.30	-0.62	-0.51	-0.13	0.485
95	Toys, games & sports requisites; parts	-0.83	-0.79	-0.88	-0.52	-0.73	-0.85	-0.45	0.158
96	Miscellaneous manufactured articles	-0.79	-0.86	-0.81	-0.61	-0.74	-0.85	-0.92	-0.062
97	Works of art, collectors' pieces and antiques	-1.00	.	.	.	.	.	.	.
	<b>Total (calculated)</b>	<b>0.22</b>	<b>0.24</b>	<b>0.16</b>	<b>0.40</b>	<b>0.33</b>	<b>0.47</b>	<b>0.47</b>	<b>0.240</b>

Source: Own calculations based on COMTRADE data.

Table A5

### Revealed comparative advantages in trade with the Czech Republic

HS	Product Name	RCA							RCA change
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
01	Live animals	-0.96	-0.99	-1.00	-0.88	-0.92	-0.89	0.01	0.533
02	Meat and edible meat offal	-1.00	-1.00	-1.00	.	-1.00	.	.	.
03	Fish & crustacean, mollusc & other	-0.76	-0.02	1.00	1.00	-0.33	1.00	1.00	1.388
04	Dairy prod; birds' eggs; natural honey; edible	0.25	-0.08	0.60	0.83	0.87	0.95	0.99	0.886
05	Products of animal origin, nes or included	0.67	0.64	0.82	1.00	1.00	1.00	1.00	0.343
06	Live tree & other plant; bulb, root; cut flowers	0.47	1.00	1.00	1.00	.	-1.00	1.00	-0.734
07	Edible vegetables and certain roots and tubers	0.45	0.77	1.00	0.35	0.06	0.69	0.45	-0.038
08	Edible fruit and nuts; peel of citrus fruit	0.82	1.00	0.81	1.00	1.00	1.00	1.00	0.094
09	Coffee, tea, matn and spices.	-1.00	-0.54	-0.95	-1.00	-0.95	-0.88	-0.94	-0.144
10	Cereals	0.18	0.73	0.55	-0.70	-0.87	0.68	0.87	0.320
11	Prod.mill.indust; malt; starches;	-0.76	-0.97	-0.88	-0.95	-0.82	-0.36	0.05	0.708
12	Oil seed, oleagi fruits; miscell grain, seed	-0.56	-0.44	-0.61	-0.89	0.13	-0.19	0.36	0.586
13	Lac; gums, resins & other vegetable saps	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.000
14	Vegetable plaiting materials; vegetable products	1.00	.	.	.	.	.	.	.
15	Animal/veg fats & oils & their cleavage products	-1.00	-1.00	-1.00	-0.06	0.52	-0.01	-1.00	0.495
16	Prep of meat, fish or crustaceans, molluscs	-1.00	-0.54	-0.66	-0.70	-1.00	-1.00	.	.
17	Sugars and sugar confectionery.	-0.91	-0.99	-1.00	1.00	-0.89	-0.99	-0.84	0.038
18	Cocoa and cocoa preparations.	-1.00	-1.00	-0.92	-0.92	.	-0.63	-0.95	0.209
19	Prep.of cereal, flour, starch/milk; pastrycook	-1.00	-0.93	-1.00	-1.00	-1.00	-1.00	-0.85	0.040
20	Prep of vegetable, fruit, nuts or other parts	-0.34	-0.94	-0.58	-0.97	-0.81	-1.00	-1.00	-0.358
21	Miscellaneous edible preparations.	-0.86	-1.00	-0.97	0.44	0.49	0.27	-0.51	0.806
22	Beverages, spirits and vinegar.	-0.64	-0.93	-1.00	-0.75	-0.07	-0.72	-0.66	0.097
23	Residues & waste from the food industries	0.02	-1.00	-0.99	-1.00	-0.96	-0.72	-0.77	-0.256
24	Tobacco and manufactured tobacco substitutes	-0.97	1.00	-1.00	.	.	.	.	.
25	Salt; sulphur; earth & ston; plastering mat	0.77	-0.60	-0.34	-0.16	-0.03	-0.22	-0.21	-0.301
26	Ores, slag and ash.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.000
27	Mineral fuels, oils & product of their distillation	-0.97	0.27	0.82	0.90	0.85	0.90	0.95	1.270
28	Inorgn chem; compds of prec mtl, radioactive elements	0.34	0.30	0.79	0.61	0.21	0.48	0.49	0.167
29	Organic chemicals.	-0.51	-0.52	-0.80	-0.76	-0.70	-0.73	-0.79	-0.246
30	Pharmaceutical products.	-0.98	-1.00	-0.98	-0.92	-1.00	-1.00	-0.99	-0.005

Table A5 contd.

Table A5 (contd.)

HS	Product Name	RCA							RCA change
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
31	Fertilizers	1.00	0.99	1.00	1.00	1.00	1.00	0.97	-0.011
32	Tanning/dyeing extract; tannins & derivs	-0.63	-0.46	-0.12	0.41	-0.21	-0.31	-0.25	0.263
33	Essential oils & resinoids; perf.	-0.87	-0.95	-1.00	-0.58	-0.98	-0.99	-0.97	-0.066
34	Soap, organic surface-active agents	-0.86	-1.00	-1.00	-1.00	-1.00	-0.99	-0.85	0.015
35	Albuminoidal subs; modified starches; glues	-0.08	0.08	0.18	0.12	0.53	0.56	-0.35	0.104
36	Explosives; pyrotechnic prod; matches	-0.96	-0.37	-0.91	-0.92	-1.00	-1.00	1.00	0.665
37	Photographic or cinematographic goods	-1.00	-0.91	-0.83	-1.00	-1.00	-1.00	.	.
38	Miscellaneous chemical products.	-0.60	-0.84	-0.33	-0.17	-0.82	-0.66	-0.37	0.200
39	Plastics and articles thereof.	-0.95	-0.92	-0.90	-0.94	-0.96	-0.97	-0.98	-0.035
40	Rubber and articles thereof.	-0.58	-0.94	-0.98	-0.64	-0.79	-0.64	-0.84	0.017
41	Raw hides and skins (other than furskins)	0.51	0.48	0.28	-0.04	0.24	-0.15	-0.06	-0.598
42	Articles of leather; saddlery/harness	0.35	-0.19	-0.68	-0.96	-0.99	0.13	0.62	0.299
43	Furskins and artificial fur; manuf	-0.96	-0.40	-0.03	0.48	-0.31	-1.00	0.92	0.638
44	Wood and articles of wood; wood charcoal	-0.33	-0.33	0.17	0.77	0.88	0.81	0.81	1.138
45	Cork and articles of cork.	-1.00	.	.	-1.00	-1.00	.	.	.
46	Manufactures of straw, esparto/other plaiting	1.00	-1.00	-0.29	0.60	0.83	-1.00	-0.02	-0.512
47	Pulp of wood/of other fibrous cellulosic material	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.000
48	Paper & paperboard; art of paper pulp	-0.98	-0.97	-0.98	-0.95	-0.95	-0.93	-0.98	0.021
49	Printed books, newspapers, pictures	-0.84	-0.93	-0.99	-1.00	-0.93	-0.91	-0.91	-0.020
50	Silk.	.	-1.00	-1.00	-1.00	.	-1.00	.	.
51	Wool, fine/coarse animal hair, horsehair	-0.90	-0.94	-0.98	-0.95	-0.96	-1.00	-0.83	0.010
52	Cotton.	-0.86	-0.93	-0.97	-0.89	-0.97	-0.79	-0.72	0.141
53	Other vegetable textile fibres; paper yarn	0.54	0.59	0.19	-0.29	-0.41	-0.02	0.79	-0.177
54	Man-made filaments.	-0.34	0.01	0.51	0.18	-0.45	-0.52	-0.59	-0.388
55	Man-made staple fibres.	-0.76	-0.84	-0.95	-0.91	-0.96	-1.00	-1.00	-0.197
56	Wadding, felt & nonwoven; yarns; twine	-0.68	-0.61	-0.58	0.16	0.12	-0.21	-0.26	0.412
57	Carpets and other textile floor coverings	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.000
58	Special woven fab; tufted tex fab; lace	-1.00	-0.89	-1.00	-1.00	-1.00	-1.00	-1.00	-0.057
59	Impregnated, coated, cover/laminated textile	-1.00	-1.00	-1.00	-1.00	-1.00	-0.97	-0.99	0.019
60	Knitted or crocheted fabrics.	-1.00	-0.95	.	-1.00	-1.00	-1.00	-1.00	-0.027
61	Art of apparel & clothing access, knitted	-0.20	0.11	-0.77	0.90	0.71	0.03	-0.23	-0.053
62	Art of apparel & clothing access, not knitted	0.56	0.75	0.86	0.17	0.51	0.32	0.62	-0.184
63	Other made up textile articles; sets	-0.98	-0.97	-0.99	-0.98	-0.95	-0.60	-0.79	0.274

Table A5 contd.



Table A5 (contd.)

HS	Product Name	RCA							RCA change
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
64	Footwear, gaiters and the like; parts	-0.75	-0.46	-0.27	0.32	0.44	0.30	0.58	1.048
65	Headgear and parts thereof	0.04	-1.00	-0.66	-0.69	-1.00	-0.22	0.21	0.475
66	Umbrellas, walking-sticks, seat-sticks, whips	-1.00	-1.00	-1.00	-1.00	.	-1.00	-1.00	0.000
67	Prepr feathers & down; arti flower;	-1.00	-1.00	-1.00	-1.00	-1.00	.	.	.
68	Art of stone, plaster, cement, asbestos	-0.82	-0.91	-0.91	-0.52	-0.41	-0.45	-0.56	0.360
69	Ceramic products.	-0.99	-0.97	-0.95	-0.94	-0.90	-0.94	-0.90	0.059
70	Glass and glassware.	-0.86	-0.87	-0.84	-0.85	-0.94	-0.99	-0.82	-0.036
71	Natural, cultured pearls, precious stones and metals	.	.	.	.	.	.	.	.
72	Iron and steel.	0.59	0.67	0.85	0.95	0.84	0.91	0.94	0.294
73	Articles of iron or steel.	-0.92	-0.89	-0.85	-0.70	-0.65	-0.64	-0.75	0.211
74	Copper and articles thereof.	-0.33	-0.77	-1.00	-0.20	-0.80	0.60	-1.00	0.346
75	Nickel and articles thereof.	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.000
76	Aluminium and articles thereof.	-0.42	-0.64	-0.02	0.38	0.46	0.24	0.30	0.803
78	Lead and articles thereof.	.	.	-1.00	-1.00	-0.95	-1.00	-0.61	.
79	Zinc and articles thereof.	-1.00	-1.00	-1.00	.	.	-1.00	-1.00	0.000
80	Tin and articles thereof.	-1.00	.	.	.	.	-1.00	-1.00	.
81	Other base metals; cermets; articles thereof	-1.00	-1.00	-1.00	-0.82	0.11	-0.16	-0.97	0.436
82	Tool, implement, cutlery, spoon & fork	-0.57	-0.37	-0.47	-0.67	-0.59	0.63	0.59	1.083
83	Miscellaneous articles of base metal	-0.97	-0.85	-0.86	-0.64	-0.36	-0.30	-0.61	0.454
84	Nuclear reactors, boilers, mchy & mech appliances	-0.90	-0.63	-0.90	-0.58	-0.75	-0.77	-0.78	-0.015
85	Electrical mchy equip parts thereof	-0.71	-0.89	-0.89	-0.30	-0.51	-0.48	-0.90	0.112
86	Railw/tramw locom, rolling-stock & parts thereof	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-0.001
87	Vehicles o/t railw/tramw roll-stock	-0.92	-0.78	-0.82	-0.81	-0.92	-0.99	-1.00	-0.146
88	Aircraft, spacecraft, and parts thereof	0.44	0.71	-0.64	0.81	-1.00	-0.36	-0.38	-0.944
89	Ships, boats and floating structures	-0.89	1.00	-1.00	1.00	1.00	.	-0.64	.
90	Optical, photo, cine, meas, checking	0.21	0.25	-0.52	-0.74	-0.81	-0.44	-0.63	-0.767
91	Clocks and watches and parts thereof	-1.00	-0.95	-0.25	-0.52	-0.25	-1.00	-1.00	-0.025
92	Musical instruments	-0.09	-0.55	-0.70	-0.04	0.03	-0.63	-0.81	-0.398
93	Arms and ammunition	.	.	.	.	.	.	.	.
94	Furniture; bedding, mattress, matt support	-0.88	-0.95	-0.88	-0.11	-0.08	-0.12	-0.52	0.597
95	Toys, games & sports requisites; parts	-0.62	-0.57	-0.93	-0.78	-0.69	-0.84	-0.24	0.052
96	Miscellaneous manufactured articles	-1.00	-1.00	-0.89	-0.97	-1.00	-1.00	-1.00	-0.001
97	Works of art, collectors' pieces and antiques	-1.00	-1.00	.	.	.	.	.	.
	<b>Total (calculated)</b>	<b>-0.25</b>	<b>-0.12</b>	<b>-0.10</b>	<b>0.04</b>	<b>0.08</b>	<b>-0.02</b>	<b>-0.13</b>	<b>0.110</b>

Source: Own calculations based on COMTRADE data.

Table A6

### Revealed comparative advantages in trade with Slovakia

HS	Product Name	RCA							RCA change
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
01	Live animals	-0.03	0.97	-0.79	-1.00	-0.45	0.88	-0.96	-0.515
02	Meat and edible meat offal	.	.	.	-1.00	-1.00	.	.	.
03	Fish & crustacean, mollusc & other	-1.00	.	.	.	.	.	.	.
04	Dairy prod; birds' eggs; natural honey; edible	-0.24	-0.01	-1.00	1.00	.	-1.00	1.00	0.124
05	Products of animal origin, nes or included	-0.33	1.00	1.00	1.00	.	.	1.00	.
06	Live tree & other plant; bulb, root; cut flowers	0.30	0.08	1.00	1.00	1.00	-0.99	.	.
07	Edible vegetables and certain roots and tubers	-0.10	-0.54	1.00	1.00	0.06	-1.00	1.00	0.321
08	Edible fruit and nuts; peel of citrus fruit	-0.79	-0.72	1.00	1.00	1.00	1.00	1.00	1.753
09	Coffee, tea, matn and spices.	-1.00	-1.00	-1.00	-1.00	1.00	-1.00	1.00	1.000
10	Cereals	0.75	0.95	-0.36	-1.00	1.00	1.00	1.00	0.150
11	Prod.mill.indust; malt; starches;	0.75	-0.90	-0.60	-0.99	-1.00	-1.00	-0.98	-0.917
12	Oil seed, oleagi fruits; miscell grain, seed	0.49	0.56	0.34	-0.41	0.58	0.59	0.82	0.174
13	Lac; gums, resins & other vegetable saps	-1.00	.	.	.	.	.	.	.
14	Vegetable plaiting materials; vegetable products	.	.	.	.	.	.	.	.
15	Animal/veg fats & oils & their cleavage products	-0.33	-0.69	-0.41	-1.00	-1.00	-1.00	.	.
16	Prep of meat, fish or crustaceans, molluscs	-1.00	-1.00	.	-1.00	.	.	.	.
17	Sugars and sugar confectionery.	-0.23	-0.87	.	-1.00	0.89	0.66	-0.76	0.504
18	Cocoa and cocoa preparations.	-1.00	0.03	-0.95	-0.98	-1.00	-1.00	-0.96	-0.496
19	Prep.of cereal, flour, starch/milk; pastrycook	-1.00	-0.96	-1.00	-1.00	-1.00	-1.00	-1.00	-0.021
20	Prep of vegetable, fruit, nuts or other parts	-0.32	0.55	1.00	-0.51	-1.00	0.55	0.55	0.435
21	Miscellaneous edible preparations.	-1.00	-1.00	-1.00	-0.99	-1.00	-1.00	-0.97	0.013
22	Beverages, spirits and vinegar.	-0.61	-0.53	0.41	0.93	0.79	0.96	0.97	1.540
23	Residues & waste from the food industries	0.06	0.89	1.00	1.00	1.00	-0.93	-0.61	-1.244
24	Tobacco and manufactured tobacco substitutes	-1.00	-1.00	-1.00	-1.00	.	.	-1.00	.
25	Salt; sulphur; earth & ston; plastering mat	-0.56	-0.31	-0.61	-0.75	-0.74	-0.79	-0.76	-0.336
26	Ores, slag and ash.	1.00	1.00	0.99	1.00	1.00	1.00	1.00	-0.002
27	Mineral fuels, oils & product of their distillation	0.86	0.85	0.91	0.86	0.82	0.89	0.98	0.080
28	Inorgn chem; compds of prec mtl, radioactive elements	-0.10	0.03	0.25	0.68	0.63	0.71	0.87	0.825
29	Organic chemicals.	0.51	0.38	0.16	0.36	0.72	0.74	0.83	0.337
30	Pharmaceutical products.	-0.99	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-0.003

Table A6 contd.

Table A6 (contd.)

HS	Product Name	RCA							RCA change 01-02 over 96-97
		1996	1997	1998	1999	2000	2001	2002	
31	Fertilizers	1.00	1.00	1.00	1.00	1.00	0.99	1.00	-0.005
32	Tanning/dyeing extract; tannins & derivs	-0.52	-0.30	-0.74	-0.87	-0.99	-1.00	-1.00	-0.590
33	Essential oils & resinoids; perf.	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.59	0.796
34	Soap, organic surface-active agents	-0.82	-0.87	-1.00	-0.77	-0.88	-0.88	0.30	0.555
35	Albuminoidal subs; modified starches; glues	-0.86	0.16	0.78	0.94	0.45	0.85	0.94	1.247
36	Explosives; pyrotechnic prod; matches	.	.	.	-1.00	.	.	.	.
37	Photographic or cinematographic goods	0.30	0.24	-1.00	-1.00	-1.00	-1.00	-1.00	-1.275
38	Miscellaneous chemical products.	-0.98	-0.96	-0.90	0.13	-0.81	-0.93	-0.96	0.023
39	Plastics and articles thereof.	-0.96	-0.93	-0.87	-0.84	-0.69	-0.67	-0.42	0.401
40	Rubber and articles thereof.	-0.96	-0.66	-0.24	0.37	0.60	0.16	0.58	1.178
41	Raw hides and skins (other than furskins)	0.98	0.85	0.95	0.70	0.98	0.65	0.57	-0.302
42	Articles of leather; saddlery/harness	-1.00	-0.91	-1.00	0.19	-1.00	0.55	0.29	1.379
43	Furskins and artificial fur; manuf	0.51	0.25	.	.	1.00	.	.	.
44	Wood and articles of wood; wood charcoal	0.26	0.28	0.76	0.94	0.88	0.69	0.56	0.357
45	Cork and articles of cork.	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	.	.
46	Manufactures of straw, esparto/other plaiting	1.00	-0.85	.	.	.	.	-1.00	.
47	Pulp of wood/of other fibrous cellulosic material	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.000
48	Paper & paperboard; art of paper pulp	-0.95	-0.85	-0.78	-0.60	-0.79	-0.65	0.20	0.675
49	Printed books, newspapers, pictures	-0.97	-0.99	-1.00	-1.00	-1.00	-1.00	-0.99	-0.017
50	Silk.	.	.	-1.00	.	.	.	.	.
51	Wool, fine/coarse animal hair, horsehair	-0.65	-0.99	-0.82	-1.00	-1.00	-1.00	-0.49	0.076
52	Cotton.	-0.98	-0.68	-0.89	-1.00	-1.00	-0.92	-1.00	-0.125
53	Other vegetable textile fibres; paper yarn	-0.30	0.46	0.51	1.00	.	-0.84	0.75	-0.122
54	Man-made filaments.	-0.96	-0.76	-0.40	-0.70	-0.54	-0.08	-0.24	0.701
55	Man-made staple fibres.	-0.38	-0.81	-0.98	-1.00	-0.99	-0.98	-0.96	-0.379
56	Wadding, felt & nonwoven; yarns; twine	-1.00	-1.00	-0.99	-1.00	-1.00	-0.96	-0.79	0.122
57	Carpets and other textile floor coverings	-1.00	-1.00	-1.00	.	.	.	.	.
58	Special woven fab; tufted tex fab; lace	-0.95	-1.00	-1.00	-1.00	-1.00	-1.00	-0.94	0.002
59	Impregnated, coated, cover/laminated textile	-0.99	-0.87	-1.00	-1.00	-0.98	0.95	0.98	1.900
60	Knitted or crocheted fabrics.	-1.00	-0.98	-0.92	-1.00	-1.00	-1.00	-0.48	0.249
61	Art of apparel & clothing access, knitted	-0.40	0.87	0.99	-0.30	-1.00	0.81	0.95	0.644
62	Art of apparel & clothing access, not knitted	0.09	0.80	0.89	0.18	0.93	0.96	0.98	0.524
63	Other made up textile articles; sets	-1.00	-1.00	-0.92	-0.88	-1.00	-0.79	-0.02	0.595

Table A6 contd.

Table A6 (contd.)

HS	Product Name	RCA							RCA change
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
64	Footwear, gaiters and the like; parts	-0.97	-0.94	-0.89	-0.74	0.19	-0.51	-0.49	0.453
65	Headgear and parts thereof	0.79	-1.00	-1.00	1.00	1.00	.	.	.
66	Umbrellas, walking-sticks, seat-sticks, whips	-1.00	-1.00	-1.00	.	.	.	.	.
67	Prepr feathers & down; arti flower;	-1.00	-1.00	-1.00	-1.00	.	.	.	.
68	Art of stone, plaster, cement, asbestos	-0.91	-0.76	-0.65	-0.16	-0.95	-0.97	-0.97	-0.130
69	Ceramic products.	-0.98	-0.99	-0.99	-0.98	-0.98	-0.99	-0.96	0.007
70	Glass and glassware.	-0.63	-0.77	-0.81	-0.51	-0.54	-0.56	-0.61	0.115
71	Natural, cultured pearls, precious stones and metals	.	.	.	.	.	.	.	.
72	Iron and steel.	0.58	0.45	0.68	0.75	0.66	0.70	0.61	0.141
73	Articles of iron or steel.	-0.73	0.06	0.34	0.42	0.17	-0.15	0.44	0.481
74	Copper and articles thereof.	0.12	-0.02	-0.32	-0.28	-1.00	0.16	0.97	0.513
75	Nickel and articles thereof.	.	.	.	.	.	.	.	.
76	Aluminium and articles thereof.	-0.88	-0.49	0.22	0.61	0.90	0.92	0.94	1.615
78	Lead and articles thereof.	0.98	1.00	1.00	1.00	1.00	1.00	1.00	0.010
79	Zinc and articles thereof.	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.000
80	Tin and articles thereof.	-1.00	-1.00	.	.	.	-1.00	-1.00	0.000
81	Other base metals; cermets; articles thereof	-1.00	1.00	1.00	-1.00	1.00	1.00	0.88	0.942
82	Tool, implement, cutlery, spoon & fork	-0.94	-0.18	-0.72	0.09	-0.01	-0.84	-0.04	0.118
83	Miscellaneous articles of base metal	-0.99	-1.00	-1.00	-0.80	-0.48	-0.93	-0.48	0.287
84	Nuclear reactors, boilers, mchy & mech appliances	-0.48	-0.46	-0.53	-0.55	-0.39	-0.26	-0.42	0.128
85	Electrical mchy equip parts thereof	-0.54	-0.13	-0.62	-0.08	0.29	-0.32	0.12	0.231
86	Railw/tramw locom, rolling-stock & parts thereof	0.78	0.53	0.31	0.33	-0.87	-0.80	-0.91	-1.511
87	Vehicles o/t railw/tramw roll-stock	-0.66	-0.91	-0.97	-0.97	-0.92	-0.66	-0.95	-0.017
88	Aircraft, spacecraft, and parts thereof	1.00	1.00	.	1.00	1.00	-0.25	.	.
89	Ships, boats and floating structures	1.00	-1.00	.	-1.00	1.00	.	.	.
90	Optical, photo, cine, meas, checking	-1.00	-0.93	-0.96	-0.80	-0.88	-0.97	-0.94	0.009
91	Clocks and watches and parts thereof	-1.00	-0.60	-1.00	.	.	.	.	.
92	Musical instruments	.	-1.00	.	.	.	.	1.00	.
93	Arms and ammunition	.	.	.	.	.	.	.	.
94	Furniture; bedding, mattress, matt support	-0.98	-0.99	-0.75	-0.11	-0.96	-0.81	-0.53	0.316
95	Toys, games & sports requisites; parts	0.33	0.44	-0.05	-0.84	-1.00	-1.00	-1.00	-1.382
96	Miscellaneous manufactured articles	-0.99	-0.95	-0.98	0.24	0.26	-0.54	-0.97	0.215
97	Works of art, collectors' pieces and antiques	-1.00	-1.00	.	.	.	.	.	.
	<b>Total (calculated)</b>	<b>0.11</b>	<b>0.16</b>	<b>0.18</b>	<b>0.21</b>	<b>0.30</b>	<b>0.27</b>	<b>0.36</b>	<b>0.183</b>

Source: Own calculations based on COMTRADE data.

Table A7

## Revealed comparative advantages in trade with Estonia

HS	Product Name	RCA							RCA change
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
01	Live animals	1.00	-1.00	-1.00	.	.	-1.00	-1.00	-1.000
02	Meat and edible meat offal	1.00	-0.66	-1.00	-1.00	.	.	.	.
03	Fish & crustacean, mollusc & other	-0.98	-0.99	-0.98	-0.95	-0.97	-0.91	-0.76	0.157
04	Dairy prod; birds' eggs; natural honey; edible	0.94	-0.81	-0.88	-0.95	-0.55	0.25	-0.73	-0.311
05	Products of animal origin, nes or included	.	-1.00	-1.00	.	.	.	.	.
06	Live tree & other plant; bulb, root; cut flowers	.	-1.00	.	.	.	.	.	.
07	Edible vegetables and certain roots and tubers	0.75	0.98	1.00	0.88	1.00	0.98	0.99	0.120
08	Edible fruit and nuts; peel of citrus fruit	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.000
09	Coffee, tea, matn and spices.	-0.90	-0.63	-1.00	-1.00	-1.00	-0.89	-0.98	-0.170
10	Cereals	1.00	0.87	1.00	1.00	1.00	0.66	1.00	-0.101
11	Prod.mill.indust; malt; starches;	0.82	0.03	0.00	-0.24	0.58	0.62	1.00	0.381
12	Oil seed, oleagi fruits; miscell grain, seed	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.025
13	Lac; gums, resins & other vegetable saps	-1.00	-1.00	-1.00	-0.94	-1.00	-0.99	-0.91	0.050
14	Vegetable plaiting materials; vegetable products	.	.	.	.	.	.	.	.
15	Animal/veg fats & oils & their cleavage products	1.00	0.97	0.80	0.85	0.07	0.42	0.14	-0.708
16	Prep of meat, fish or crustaceans, molluscs	-0.93	-0.33	-1.00	-1.00	-1.00	-1.00	-1.00	-0.370
17	Sugars and sugar confectionery.	0.88	0.39	-0.19	-0.34	0.01	-0.17	-0.18	-0.812
18	Cocoa and cocoa preparations.	-0.51	-0.94	-0.88	-0.72	0.86	0.71	0.85	1.503
19	Prep.of cereal, flour, starch/milk; pastrycook	0.32	0.40	-0.61	0.42	0.87	1.00	1.00	0.640
20	Prep of vegetable, fruit, nuts or other parts	0.86	0.17	-0.23	0.90	1.00	0.98	0.97	0.461
21	Miscellaneous edible preparations.	0.53	-0.92	-0.58	-0.94	-0.09	0.60	0.24	0.613
22	Beverages, spirits and vinegar.	0.97	-0.07	-0.22	0.98	0.63	0.39	0.61	0.055
23	Residues & waste from the food industries	0.99	0.68	-0.30	-0.14	0.93	0.35	0.54	-0.388
24	Tobacco and manufactured tobacco substitutes	1.00	.	.	.	.	1.00	1.00	.
25	Salt; sulphur; earth & ston; plastering mat	0.97	1.00	0.95	1.00	1.00	1.00	0.92	-0.026
26	Ores, slag and ash.	.	.	.	0.15	0.91	.	1.00	.
27	Mineral fuels, oils & product of their distillation	-1.00	-0.98	-0.95	-0.26	-0.82	-0.34	0.48	1.055
28	Inorgn chem; compds of prec mtl, radioactive elements	0.83	0.77	0.94	0.21	-0.35	-0.74	-0.24	-1.289
29	Organic chemicals.	-0.09	-0.81	-0.75	-0.11	-0.74	0.15	0.94	0.993
30	Pharmaceutical products.	-0.07	-0.44	0.67	-0.76	-0.86	-0.81	-0.93	-0.617

Table A7 contd.

Table A7 (contd.)

HS	Product Name	RCA							RCA change
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
31	Fertilizers	.	.	1.00	1.00	1.00	.	1.00	.
32	Tanning/dyeing extract; tannins & derivs	-0.56	-0.68	-0.37	-0.55	-0.59	-0.19	-0.79	0.129
33	Essential oils & resinoids; perf.	0.90	0.92	1.00	0.97	1.00	1.00	1.00	0.092
34	Soap, organic surface-active agents	0.25	0.19	0.13	0.47	0.83	1.00	1.00	0.779
35	Albuminoidal subs; modified starches; glues	0.82	-1.00	0.22	0.78	0.87	0.79	0.64	0.806
36	Explosives; pyrotechnic prod; matches	0.23	0.68	0.01	0.60	0.91	-1.00	0.66	-0.626
37	Photographic or cinematographic goods	1.00	.	.	1.00	.	-1.00	1.00	.
38	Miscellaneous chemical products.	-0.68	-0.86	-0.94	-0.83	-0.89	-0.78	-0.74	0.008
39	Plastics and articles thereof.	-0.87	-0.70	-0.95	-0.96	-0.89	-0.19	-0.03	0.674
40	Rubber and articles thereof.	0.70	0.38	0.98	0.98	0.96	0.96	0.91	0.394
41	Raw hides and skins (other than furskins)	1.00	1.00	1.00	1.00	1.00	.	.	.
42	Articles of leather; saddlery/harness	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-0.89	0.055
43	Furskins and artificial fur; manuf	.	.	.	.	0.17	.	-1.00	.
44	Wood and articles of wood; wood charcoal	-0.70	-0.67	-0.48	0.14	0.38	0.19	0.40	0.979
45	Cork and articles of cork.	.	.	.	.	.	.	1.00	.
46	Manufactures of straw, esparto/other plaiting	.	.	.	.	1.00	.	.	.
47	Pulp of wood/of other fibrous cellulosic material	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.000
48	Paper & paperboard; art of paper pulp	-0.67	-0.59	-0.75	0.32	0.22	0.38	-0.67	0.484
49	Printed books, newspapers, pictures	-1.00	-0.44	0.68	0.07	0.89	-1.00	-0.95	-0.254
50	Silk.	.	.	.	.	.	.	.	.
51	Wool, fine/coarse animal hair, horsehair	0.49	-1.00	1.00	1.00	1.00	1.00	1.00	1.253
52	Cotton.	-0.94	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-0.029
53	Other vegetable textile fibres; paper yarn	0.87	1.00	.	.	.	.	.	.
54	Man-made filaments.	-1.00	0.88	1.00	1.00	0.69	.	0.94	.
55	Man-made staple fibres.	-0.04	.	.	.	1.00	1.00	.	.
56	Wadding, felt & nonwoven; yarns; twine	0.91	0.84	-1.00	0.74	0.46	-1.00	0.65	-1.045
57	Carpets and other textile floor coverings	-1.00	-1.00	-1.00	.	.	-1.00	-1.00	0.000
58	Special woven fab; tufted tex fab; lace	-1.00	.	.	.	.	.	.	.
59	Impregnated, coated, cover/laminated textile	0.24	-0.50	-1.00	-1.00	-1.00	0.85	-1.00	0.059
60	Knitted or crocheted fabrics.	.	.	.	.	.	.	-1.00	.
61	Art of apparel & clothing access, knitted	-0.04	-1.00	-1.00	-1.00	-0.89	-0.96	-0.29	-0.103
62	Art of apparel & clothing access, not knitted	-0.04	-0.85	-0.97	-1.00	-1.00	-0.99	-0.90	-0.502
63	Other made up textile articles; sets	-1.00	-0.86	-0.99	-0.93	-0.99	-0.73	-1.00	0.064

Table A7 contd.

Table A7 (contd.)

HS	Product Name	RCA							RCA change
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
64	Footwear, gaiters and the like; parts	0.31	-0.67	0.26	0.51	0.32	-1.00	0.57	-0.035
65	Headgear and parts thereof	1.00	0.75	1.00	1.00	1.00	0.98	0.82	0.021
66	Umbrellas, walking-sticks, seat-sticks, whips	.	.	.	.	.	.	.	.
67	Prepr feathers & down; arti flower;	.	.	.	.	-1.00	.	.	.
68	Art of stone, plaster, cement, asbestos	0.43	-0.09	-0.24	-0.45	0.88	0.95	0.79	0.701
69	Ceramic products.	0.95	0.77	0.73	0.95	0.98	0.97	0.75	0.001
70	Glass and glassware.	0.90	0.10	-0.22	-0.41	-0.08	-0.87	-0.85	-1.361
71	Natural, cultured pearls, precious stones and metals	.	.	.	.	.	.	.	.
72	Iron and steel.	0.87	0.78	0.69	0.64	0.91	-0.19	0.49	-0.679
73	Articles of iron or steel.	0.59	0.19	-0.06	0.35	0.22	0.60	0.77	0.298
74	Copper and articles thereof.	0.25	0.88	0.96	0.79	-0.26	-1.00	.	.
75	Nickel and articles thereof.	.	.	-1.00	.	.	.	1.00	.
76	Aluminium and articles thereof.	-0.55	-0.98	-0.36	-0.57	-0.15	0.62	0.93	1.537
78	Lead and articles thereof.	.	.	.	.	.	.	.	.
79	Zinc and articles thereof.	.	-1.00	.	.	-1.00	.	.	.
80	Tin and articles thereof.	.	.	.	.	.	.	1.00	.
81	Other base metals; cermets; articles thereof	.	1.00	1.00	1.00	1.00	.	1.00	.
82	Tool, implement, cutlery, spoon & fork	0.70	0.46	0.65	0.96	1.00	0.87	0.97	0.341
83	Miscellaneous articles of base metal	-1.00	-0.95	-0.60	-0.90	-0.83	-0.79	0.37	0.768
84	Nuclear reactors, boilers, mchy & mech appliances	0.23	0.19	-0.11	0.52	0.80	0.70	0.55	0.415
85	Electrical mchy equip parts thereof	-0.01	0.49	0.47	0.63	0.07	0.72	0.50	0.369
86	Railw/tramw locom, rolling-stock & parts thereof	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.008
87	Vehicles o/t railw/tramw roll-stock	-0.10	0.11	-0.71	-0.32	-0.68	-0.62	-0.41	-0.524
88	Aircraft, spacecraft, and parts thereof	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.000
89	Ships, boats and floating structures	.	-1.00	-1.00	-1.00	.	-0.77	1.00	.
90	Optical, photo, cine, meas, checking	-0.94	-0.93	-0.92	-0.59	0.60	-0.96	-0.94	-0.013
91	Clocks and watches and parts thereof	.	-1.00	.	.	-1.00	.	.	.
92	Musical instruments	-0.33	.	.	.	.	.	.	.
93	Arms and ammunition	.	.	.	.	.	.	.	.
94	Furniture; bedding, mattress, matt support	-0.92	-1.00	-1.00	-0.99	-0.97	-0.98	-0.98	-0.021
95	Toys, games & sports requisites; parts	-1.00	-1.00	-0.93	-0.50	-1.00	-0.72	-0.96	0.160
96	Miscellaneous manufactured articles	-1.00	-1.00	1.00	0.61	0.82	-0.46	-1.00	0.271
97	Works of art, collectors' pieces and antiques	.	-1.00	-1.00	.	.	.	.	.
	<b>Total (calculated)</b>	<b>0.17</b>	<b>-0.25</b>	<b>-0.30</b>	<b>-0.13</b>	<b>0.08</b>	<b>-0.08</b>	<b>0.26</b>	<b>0.130</b>

Source: Own calculations based on COMTRADE data.

Table A8

### Revealed comparative advantages in trade with Lithuania

HS	Product Name	RCA							RCA change
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
01	Live animals	-0.90	-0.81	-1.00	-0.97	-1.00	-1.00	-1.00	-0.142
02	Meat and edible meat offal	1.00	1.00	.	.	.	.	.	.
03	Fish & crustacean, mollusc & other	-0.91	-1.00	-1.00	-0.96	-0.15	0.88	0.92	1.859
04	Dairy prod; birds' eggs; natural honey; edible	0.99	0.97	1.00	-0.30	0.98	0.97	0.91	-0.041
05	Products of animal origin, nes or included	-0.47	0.59	0.15	-0.11	-0.63	0.96	1.00	0.920
06	Live tree & other plant; bulb, root; cut flowers	1.00	-1.00	-1.00	.	1.00	1.00	1.00	1.000
07	Edible vegetables and certain roots and tubers	0.97	1.00	1.00	1.00	1.00	1.00	1.00	0.017
08	Edible fruit and nuts; peel of citrus fruit	0.96	0.99	0.93	0.98	0.97	1.00	1.00	0.024
09	Coffee, tea, matn and spices	0.05	0.27	1.00	0.61	1.00	1.00	1.00	0.842
10	Cereals	1.00	1.00	1.00	0.98	1.00	-0.12	0.99	-0.563
11	Prod.mill.indust; malt; starches	0.87	0.67	0.99	1.00	0.85	-0.15	1.00	-0.343
12	Oil seed, oleagi fruits; miscell grain, seed	0.97	0.97	0.86	0.83	0.99	1.00	0.95	0.003
13	Lac; gums, resins & other vegetable saps	1.00	1.00	1.00	1.00	.	1.00	.	.
14	Vegetable plaiting materials; vegetable products	.	.	.	.	.	.	.	.
15	Animal/veg fats & oils & their cleavage products	0.98	1.00	1.00	1.00	1.00	1.00	0.86	-0.057
16	Prep of meat, fish or crustaceans, molluscs	-0.88	-0.73	-1.00	-1.00	-1.00	-0.97	-1.00	-0.180
17	Sugars and sugar confectionery	0.93	1.00	1.00	0.53	-0.31	-0.08	-0.76	-1.387
18	Cocoa and cocoa preparations	-1.00	-1.00	.	-1.00	-1.00	-0.93	-0.96	0.057
19	Prep.of cereal, flour, starch/milk; pastrycook	-0.01	0.15	-1.00	-0.91	-0.04	0.25	0.69	0.401
20	Prep of vegetable, fruit, nuts or other parts	0.14	0.78	0.04	1.00	1.00	1.00	1.00	0.538
21	Miscellaneous edible preparations	-0.81	-0.66	-0.97	-0.88	0.22	-0.19	-0.51	0.383
22	Beverages, spirits and vinegar	0.70	0.99	1.00	1.00	1.00	1.00	1.00	0.153
23	Residues & waste from the food industries	0.96	0.97	-0.38	0.64	0.57	0.80	0.79	-0.168
24	Tobacco and manufactured tobacco substitutes	.	1.00	1.00	1.00	.	1.00	1.00	.
25	Salt; sulphur; earth & ston; plastering mat	1.00	1.00	1.00	1.00	1.00	0.80	0.89	-0.152
26	Ores, slag and ash	0.75	1.00	0.57	0.90	1.00	1.00	1.00	0.125
27	Mineral fuels, oils & product of their distillation	-0.98	-1.00	-1.00	-0.99	-0.98	-0.99	-0.90	0.042
28	Inorgn chem; compds of prec mtl, radioactive elements	0.96	0.77	0.66	0.88	0.35	0.36	0.57	-0.400
29	Organic chemicals.	0.32	0.52	0.42	1.00	0.60	0.58	0.99	0.365
30	Pharmaceutical products.	-0.16	-0.31	-0.23	-0.16	0.12	0.40	0.21	0.539

Table A8 contd.



Table A8 (contd.)

HS	Product Name	RCA								RCA change 01-02 over 96-97
		1996	1997	1998	1999	2000	2001	2002		
31	Fertilizers	1.00	1.00	0.89	1.00	0.02	0.81	0.07	-0.562	
32	Tanning/dyeing extract; tannins & derivs	0.03	-0.60	-0.75	0.71	0.46	0.38	0.98	0.968	
33	Essential oils & resinoids; perf.	0.88	0.99	1.00	1.00	0.94	0.43	0.90	-0.274	
34	Soap, organic surface-active agents	-0.17	0.58	-0.30	-0.83	-0.18	0.69	0.88	0.584	
35	Albuminoidal subs; modified starches; glues	0.88	-0.41	0.54	0.78	0.84	0.95	0.93	0.709	
36	Explosives; pyrotechnic prod; matches	-1.00	0.81	-1.00	.	.	-1.00	-0.48	-0.646	
37	Photographic or cinematographic goods	0.44	0.81	0.61	-1.00	1.00	1.00	0.30	0.026	
38	Miscellaneous chemical products.	0.78	0.41	0.26	0.99	0.46	0.22	0.51	-0.230	
39	Plastics and articles thereof.	-0.75	-0.68	-0.77	-0.88	-0.69	-0.39	-0.09	0.481	
40	Rubber and articles thereof.	0.56	0.45	0.85	0.98	0.93	0.99	0.95	0.464	
41	Raw hides and skins (other than furskins)	-0.25	-0.32	0.86	0.97	0.93	0.95	0.96	1.236	
42	Articles of leather; saddlery/harness	-0.19	-1.00	-1.00	-1.00	1.00	.	0.85	.	
43	Furskins and artificial fur; manuf	0.93	0.91	0.58	-0.20	1.00	.	1.00	.	
44	Wood and articles of wood; wood charcoal	-0.98	-0.86	-0.38	0.73	0.90	0.78	0.80	1.709	
45	Cork and articles of cork.	.	.	.	.	.	.	.	.	
46	Manufactures of straw, esparto/other plaiting	.	.	.	.	.	-1.00	.	.	
47	Pulp of wood/of other fibrous cellulosic material	-1.00	-1.00	-1.00	-1.00	0.02	0.89	1.00	1.946	
48	Paper & paperboard; art of paper pulp	-0.06	0.13	-0.11	-0.11	0.53	0.78	0.02	0.370	
49	Printed books, newspapers, pictures	1.00	0.01	-0.27	0.37	0.43	-0.54	-0.82	-1.190	
50	Silk.	.	.	.	.	.	.	.	.	
51	Wool, fine/coarse animal hair, horsehair	-0.43	-0.70	-0.75	-0.95	-0.60	0.55	0.83	1.251	
52	Cotton.	-0.88	-0.87	-1.00	0.60	0.22	-1.00	0.89	0.817	
53	Other vegetable textile fibres; paper yarn	0.41	0.29	0.84	0.67	0.93	0.72	0.80	0.413	
54	Man-made filaments.	0.62	0.84	0.55	-1.00	-0.70	-0.92	-0.21	-1.299	
55	Man-made staple fibres.	-0.85	-0.80	-0.93	-1.00	-0.03	0.23	0.89	1.383	
56	Wadding, felt & nonwoven; yarns; twine	-0.92	-0.80	-0.76	-1.00	-0.81	-0.94	-0.96	-0.087	
57	Carpets and other textile floor coverings	0.61	-1.00	-1.00	.	.	-1.00	.	.	
58	Special woven fab; tufted tex fab; lace	-1.00	0.31	-1.00	-0.99	-1.00	-1.00	-1.00	-0.654	
59	Impregnated, coated, cover/laminated textile	-0.76	-0.74	-0.43	-0.57	-0.19	0.82	0.18	1.249	
60	Knitted or crocheted fabrics.	-1.00	-1.00	-1.00	1.00	-1.00	-1.00	0.10	0.550	
61	Art of apparel & clothing access, knitted	-0.77	-1.00	-0.96	-0.95	-1.00	-1.00	-0.99	-0.112	
62	Art of apparel & clothing access, not knitted	-0.86	-1.00	-0.56	-0.08	0.46	-0.07	-0.22	0.780	
63	Other made up textile articles; sets	-0.90	-0.99	-1.00	-1.00	-0.91	0.12	-0.24	0.886	

Table A8 contd.

Table A8 (contd.)

HS	Product Name	RCA							RCA change
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
64	Footwear, gaiters and the like; parts	-0.45	-0.39	-0.53	-0.72	-0.65	-0.39	0.23	0.338
65	Headgear and parts thereof	.	-1.00	-1.00	.	.	.	-1.00	.
66	Umbrellas, walking-sticks, seat-sticks, whips	.	.	.	.	.	.	.	.
67	Prepr feathers & down; arti flower;	.	.	.	.	.	.	.	.
68	Art of stone, plaster, cement, asbestos	0.87	0.70	0.50	0.48	0.30	-0.22	-0.34	-1.066
69	Ceramic products.	0.85	0.76	0.74	0.60	-0.40	-0.66	-0.55	-1.414
70	Glass and glassware.	-0.34	0.15	0.55	0.29	1.00	0.95	0.90	1.024
71	Natural, cultured pearls, precious stones and metals	.	.	.	.	.	.	.	.
72	Iron and steel.	0.86	0.89	0.82	0.96	0.99	0.99	1.00	0.119
73	Articles of iron or steel.	0.94	0.96	0.98	0.98	0.90	0.92	0.95	-0.015
74	Copper and articles thereof.	0.92	1.00	1.00	1.00	1.00	0.96	0.99	0.013
75	Nickel and articles thereof.	.	.	.	.	.	.	.	.
76	Aluminium and articles thereof.	-0.33	-0.12	-0.31	0.07	0.72	0.27	0.69	0.705
78	Lead and articles thereof.	.	.	.	.	.	.	.	.
79	Zinc and articles thereof.	.	.	.	.	.	1.00	1.00	.
80	Tin and articles thereof.	.	.	.	.	.	.	.	.
81	Other base metals; cermets; articles thereof	1.00	.	.	1.00	.	1.00	1.00	.
82	Tool, implement, cutlery, spoon & fork	0.82	0.77	0.43	0.74	0.38	0.79	0.99	0.093
83	Miscellaneous articles of base metal	-0.30	-0.89	0.12	0.59	-0.49	0.16	0.28	0.815
84	Nuclear reactors, boilers, mchy & mech appliances	-0.34	-0.25	-0.13	0.18	-0.03	-0.11	0.00	0.239
85	Electrical mchy equip parts thereof	-0.13	-0.11	-0.03	0.09	0.10	0.19	0.51	0.470
86	Railw/tramw locom, rolling-stock & parts thereof	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.000
87	Vehicles o/t railw/tramw roll-stock	0.86	0.79	0.76	0.25	-0.01	0.06	0.87	-0.359
88	Aircraft, spacecraft, and parts thereof	1.00	1.00	1.00	0.97	0.94	0.37	0.99	-0.319
89	Ships, boats and floating structures	.	.	.	1.00	.	.	1.00	.
90	Optical, photo, cine, meas, checking	-0.04	-0.39	0.23	0.17	-0.59	-0.49	-0.03	-0.042
91	Clocks and watches and parts thereof	.	.	-1.00	-1.00	.	.	.	.
92	Musical instruments	1.00	1.00	.	.	.	.	.	.
93	Arms and ammunition	.	.	.	.	.	.	.	.
94	Furniture; bedding, mattress, matt support	-0.95	-0.96	-0.91	-0.95	-0.94	-0.81	-0.64	0.230
95	Toys, games & sports requisites; parts	1.00	0.70	0.19	-0.29	-0.76	0.91	0.93	0.069
96	Miscellaneous manufactured articles	0.23	0.72	0.05	0.59	-1.00	0.24	-0.72	-0.715
97	Works of art, collectors' pieces and antiques	.	.	.	-1.00	.	.	.	.
	<b>Total (calculated)</b>	<b>-0.09</b>	<b>-0.41</b>	<b>-0.40</b>	<b>-0.07</b>	<b>-0.24</b>	<b>0.12</b>	<b>0.24</b>	<b>0.427</b>

Source: Own calculations based on COMTRADE data.

Table A9

## Revealed comparative advantages in trade with Latvia

HS	Product Name	RCA							RCA change
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
01	Live animals	.	.	.	.	.	.	.	.
02	Meat and edible meat offal	0.09	0.26	1.00	1.00	.	1.00	.	.
03	Fish & crustacean, mollusc & other	-0.88	-1.00	-1.00	-1.00	-0.67	-0.20	-0.33	0.673
04	Dairy prod; birds' eggs; natural honey; edible	0.91	1.00	0.30	1.00	.	-0.52	1.00	-0.710
05	Products of animal origin, nes or included	1.00	1.00	1.00	1.00	1.00	-0.96	-0.99	-1.977
06	Live tree & other plant; bulb, root; cut flowers	0.06	0.07	-0.19	-1.00	1.00	.	.	.
07	Edible vegetables and certain roots and tubers	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.005
08	Edible fruit and nuts; peel of citrus fruit	0.95	1.00	1.00	1.00	1.00	1.00	0.92	-0.016
09	Coffee, tea, matn and spices	-1.00	0.07	-1.00	-1.00	.	.	-0.71	.
10	Cereals	0.99	1.00	1.00	1.00	0.87	1.00	1.00	0.003
11	Prod.mill.indust; malt; starches	0.95	0.85	1.00	1.00	0.08	-0.68	0.40	-1.045
12	Oil seed, oleagi fruits; miscell grain, seed	1.00	1.00	0.95	0.83	0.57	0.82	0.97	-0.107
13	Lac; gums, resins & other vegetable saps	1.00	.	.	.	1.00	1.00	.	.
14	Vegetable plaiting materials; vegetable products	.	.	1.00	.	.	.	.	.
15	Animal/veg fats & oils & their cleavage products	1.00	0.88	0.83	0.87	0.98	0.97	0.85	-0.026
16	Prep of meat, fish or crustaceans, molluscs	-1.00	0.54	0.66	-1.00	-1.00	-1.00	-1.00	-0.771
17	Sugars and sugar confectionery	0.50	1.00	0.90	1.00	1.00	1.00	1.00	0.248
18	Cocoa and cocoa preparations	.	.	-1.00	0.06	1.00	1.00	1.00	.
19	Prep.of cereal, flour, starch/milk; pastrycook	-0.16	-0.58	-0.39	1.00	1.00	1.00	0.98	1.359
20	Prep of vegetable, fruit, nuts or other parts	-0.43	0.90	0.10	1.00	0.39	0.85	1.00	0.692
21	Miscellaneous edible preparations.	-0.36	-0.95	0.65	-0.98	1.00	0.02	-0.11	0.609
22	Beverages, spirits and vinegar	0.88	0.73	0.94	1.00	1.00	1.00	0.90	0.149
23	Residues & waste from the food industries	1.00	1.00	0.87	0.82	0.90	0.32	0.61	-0.533
24	Tobacco and manufactured tobacco substitutes	1.00	1.00	1.00	1.00	0.87	.	1.00	.
25	Salt; sulphur; earth & ston; plastering mat	0.99	0.98	1.00	1.00	0.97	1.00	1.00	0.018
26	Ores, slag and ash	-0.94	1.00	.	1.00	1.00	1.00	1.00	0.969
27	Mineral fuels, oils & product of their distillation	-0.74	-0.98	-0.93	-0.96	-0.48	0.85	1.00	1.787
28	Inorgn chem; compds of prec mtl, radioactive elements	0.82	0.90	1.00	0.96	0.97	0.99	0.99	0.131
29	Organic chemicals	-0.35	-0.60	0.63	-0.47	-0.69	-0.43	0.06	0.290
30	Pharmaceutical products	0.33	0.01	-0.07	-0.34	-0.33	-0.53	-0.74	-0.801

Table A9 contd.

Table A9 (contd.)

HS	Product Name	RCA								RCA change 01-02 over 96-97
		1996	1997	1998	1999	2000	2001	2002		
31	Fertilizers	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.000
32	Tanning/dyeing extract; tannins & derivs	0.79	0.58	0.09	-0.48	-0.26	0.35	-0.29	-0.653	-0.653
33	Essential oils & resinoids; perf.	-0.95	-0.95	-0.48	0.30	-0.59	-0.12	-0.45	0.668	0.668
34	Soap, organic surface-active agents	0.68	0.47	-0.04	0.44	0.25	0.50	0.65	0.002	0.002
35	Albuminoidal subs; modified starches; glues	0.99	0.97	0.95	0.90	0.77	0.89	0.66	-0.203	-0.203
36	Explosives; pyrotechnic prod; matches	-1.00	-1.00	-0.42	.	1.00	1.00	.	.	.
37	Photographic or cinematographic goods	.	1.00	1.00	.	1.00	-0.39	1.00	.	.
38	Miscellaneous chemical products	0.83	-0.79	-0.21	0.29	-0.19	0.40	0.61	0.488	0.488
39	Plastics and articles thereof	-0.82	-0.70	-0.93	-0.81	0.21	0.82	0.64	1.491	1.491
40	Rubber and articles thereof	0.72	0.72	0.89	0.52	0.33	-0.48	0.00	-0.955	-0.955
41	Raw hides and skins (other than furskins)	-0.98	1.00	1.00	1.00	1.00	1.00	1.00	0.989	0.989
42	Articles of leather; saddlery/harness	-0.11	-0.60	-1.00	1.00	.	.	.	.	.
43	Furskins and artificial fur; manuf	1.00	1.00	.	-1.00	-1.00	-0.21	-1.00	-1.606	-1.606
44	Wood and articles of wood; wood charcoal	-1.00	-0.95	-0.96	-0.38	-0.40	-0.67	-0.84	0.218	0.218
45	Cork and articles of cork	-1.00	.	.	.	.	.	.	.	.
46	Manufactures of straw, esparto/other plaiting	.	.	.	1.00	.	.	.	.	.
47	Pulp of wood/of other fibrous cellulosic material	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.000	0.000
48	Paper & paperboard; art of paper pulp	-0.38	-0.14	0.05	0.07	-0.12	-0.37	-0.07	0.045	0.045
49	Printed books, newspapers, pictures	-0.51	-0.62	0.16	0.09	-0.72	-0.63	0.46	0.478	0.478
50	Silk	-1.00	.	.	.	.	.	.	.	.
51	Wool, fine/coarse animal hair, horsehair	0.08	-0.40	-0.65	-1.00	-0.52	-0.78	-1.00	-0.730	-0.730
52	Cotton	-0.87	0.00	-1.00	-0.63	-0.06	.	1.00	.	.
53	Other vegetable textile fibres; paper yarn	1.00	1.00	1.00	0.92	-1.00	.	1.00	.	.
54	Man-made filaments	-1.00	-0.56	-1.00	-1.00	0.45	1.00	0.98	1.766	1.766
55	Man-made staple fibres	-0.89	-0.84	-1.00	-1.00	0.27	-0.97	1.00	0.877	0.877
56	Wadding, felt & nonwoven; yarns; twine	0.53	-1.00	-1.00	-0.39	-1.00	-1.00	-0.93	-0.730	-0.730
57	Carpets and other textile floor coverings	.	-1.00	.	1.00	-1.00	-1.00	.	.	.
58	Special woven fab; tufted tex fab; lace	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.001	0.001
59	Impregnated, coated, cover/laminated textile	-0.93	-0.80	-0.36	1.00	-1.00	1.00	-1.00	0.865	0.865
60	Knitted or crocheted fabrics	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.000	0.000
61	Art of apparel & clothing access, knitted	-1.00	-1.00	0.04	-1.00	-0.36	-0.98	-1.00	0.011	0.011
62	Art of apparel & clothing access, not knitted	0.73	-0.24	-0.80	-1.00	0.96	0.72	-0.99	-0.381	-0.381
63	Other made up textile articles; sets	-0.96	-1.00	-0.95	-1.00	-1.00	-1.00	-1.00	-0.022	-0.022

Table A9 contd.

Table A9 (contd.)

HS	Product Name	RCA							RCA change
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
64	Footwear, gaiters and the like; parts	-0.15	-0.72	0.40	0.66	0.98	0.03	0.08	0.489
65	Headgear and parts thereof	.	0.85	1.00	.	1.00	.	.	.
66	Umbrellas, walking-sticks, seat-sticks, whips	.	.	.	.	-1.00	.	.	.
67	Prepr feathers & down; arti flower	.	1.00	.	.	.	.	.	.
68	Art of stone, plaster, cement, asbestos	0.24	0.86	0.69	0.94	1.00	0.97	0.96	0.411
69	Ceramic products	0.92	0.96	0.93	0.97	0.93	0.93	0.93	-0.008
70	Glass and glassware	-0.54	-0.15	-0.48	-0.50	0.12	0.73	0.91	1.162
71	Natural, cultured pearls, precious stones and metals	.	.	.	.	.	.	.	.
72	Iron and steel	0.91	0.91	0.99	0.98	0.98	1.00	1.00	0.090
73	Articles of iron or steel	0.80	0.93	0.80	0.69	0.02	0.89	0.92	0.038
74	Copper and articles thereof	0.56	0.96	0.93	0.10	1.00	1.00	1.00	0.240
75	Nickel and articles thereof	.	.	.	-1.00	.	1.00	1.00	.
76	Aluminium and articles thereof.	-0.80	-0.11	-0.46	0.51	0.98	0.81	0.25	0.982
78	Lead and articles thereof	.	1.00	1.00	1.00	1.00	1.00	1.00	.
79	Zinc and articles thereof	-1.00	-1.00	.	-1.00	-0.59	.	1.00	.
80	Tin and articles thereof	-1.00	1.00	.	.	.	.	1.00	.
81	Other base metals; cermets; articles thereof	-0.97	-0.31	0.91	1.00	1.00	1.00	0.38	1.325
82	Tool, implement, cutlery, spoon & fork	-0.20	0.37	0.00	0.36	0.99	1.00	1.00	0.913
83	Miscellaneous articles of base metal	-0.57	-0.86	-0.88	-0.73	-0.88	-0.78	-0.73	-0.041
84	Nuclear reactors, boilers, mchy & mech appliances	0.24	0.07	0.10	0.12	0.89	0.97	0.92	0.788
85	Electrical mchy equip parts thereof	-0.35	-0.13	-0.03	-0.48	0.43	-0.47	-0.35	-0.172
86	Railw/tramw locom, rolling-stock & parts thereof	-0.70	0.89	0.44	0.31	0.52	-0.34	1.00	0.232
87	Vehicles o/t railw/tramw roll-stock	-0.59	-0.79	-0.47	0.03	-0.26	0.15	-0.51	0.510
88	Aircraft, spacecraft, and parts thereof	.	1.00	1.00	1.00	1.00	1.00	1.00	.
89	Ships, boats and floating structures	1.00	0.27	0.78	1.00	1.00	1.00	1.00	0.364
90	Optical, photo, cine, meas, checking	0.33	0.62	0.50	-0.21	-0.63	0.48	0.36	-0.054
91	Clocks and watches and parts thereof	.	.	-1.00	1.00	1.00	.	.	.
92	Musical instruments	.	-1.00	-0.78	0.54	1.00	.	.	.
93	Arms and ammunition	.	.	.	.	.	.	.	.
94	Furniture; bedding, mattress, matt support	-0.62	-0.15	-0.71	-0.87	-0.76	-0.71	0.78	0.418
95	Toys, games & sports requisites; parts	0.09	-1.00	-1.00	-0.96	-0.99	-0.43	0.22	0.351
96	Miscellaneous manufactured articles	-0.77	-1.00	-1.00	0.37	0.19	0.43	-0.35	0.926
97	Works of art, collectors' pieces and antiques	.	.	.	.	.	.	.	.
	<b>Total (calculated)</b>	<b>-0.09</b>	<b>-0.02</b>	<b>0.26</b>	<b>-0.05</b>	<b>0.59</b>	<b>0.75</b>	<b>0.74</b>	<b>0.799</b>

Source: Own calculations based on COMTRADE data.

Table A10

## Revealed comparative advantages in trade with Russia

HS	Product Name	RCA							RCA change
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
01	Live animals	-0.70	-0.38	-0.61	-0.30	0.12	-0.40	-0.70	-0.014
02	Meat and edible meat offal	1.00	1.00	1.00	1.00	0.98	0.98	1.00	-0.010
03	Fish & crustacean, mollusc & other	-0.94	-0.98	-0.99	-0.99	-0.93	-0.67	-0.31	0.471
04	Dairy prod; birds' eggs; natural honey; edible	0.99	0.99	0.92	0.96	0.91	0.86	0.68	-0.220
05	Products of animal origin, nes or included	0.11	0.88	0.89	0.82	0.70	0.59	0.39	-0.008
06	Live tree & other plant; bulb, root; cut flowers	0.75	1.00	0.88	0.99	0.91	0.80	0.91	-0.013
07	Edible vegetables and certain roots and tubers	0.95	0.99	0.70	0.86	0.87	0.96	0.29	-0.340
08	Edible fruit and nuts; peel of citrus fruit	0.97	0.97	0.97	-0.46	0.91	0.87	0.84	-0.112
09	Coffee, tea, matn and spices	0.90	0.94	0.93	0.99	-0.77	-0.74	-0.97	-1.779
10	Cereals	0.85	0.80	0.73	0.96	-0.19	0.06	0.86	-0.365
11	Prod.mill.indust; malt; starches	0.99	0.96	0.93	0.97	-0.59	-0.69	0.48	-1.076
12	Oil seed, oleagi fruits; miscell grain, seed	0.25	0.41	0.47	0.55	0.95	0.60	0.71	0.318
13	Lac; gums, resins & other vegetable saps	0.64	0.97	0.99	1.00	1.00	1.00	1.00	0.198
14	Vegetable plaiting materials; vegetable products	-1.00	-0.23	1.00	1.00	-0.81	-1.00	.	.
15	Animal/veg fats & oils & their cleavage products	0.89	0.96	0.93	0.98	0.92	0.92	0.95	0.003
16	Prep of meat, fish or crustaceans, molluscs	0.98	0.99	0.88	0.90	0.62	0.49	0.22	-0.628
17	Sugars and sugar confectionery	0.99	0.98	0.97	0.99	0.90	0.82	0.69	-0.230
18	Cocoa and cocoa preparations	0.60	0.53	0.55	0.49	0.70	0.78	0.74	0.198
19	Prep.of cereal, flour, starch/milk; pastrycook	0.94	0.85	0.76	0.42	0.51	0.58	0.22	-0.491
20	Prep of vegetable, fruit, nuts or other parts	0.98	0.99	0.95	0.72	0.64	0.65	0.69	-0.316
21	Miscellaneous edible preparations	0.79	0.40	-0.27	0.15	-0.01	-0.01	-0.18	-0.685
22	Beverages, spirits and vinegar	1.00	0.98	0.90	0.67	0.71	0.71	0.61	-0.327
23	Residues & waste from the food industries	0.98	0.36	-0.17	-0.76	-0.70	-0.44	-0.20	-0.994
24	Tobacco and manufactured tobacco substitutes	0.92	0.93	0.95	0.95	0.66	-0.25	-0.37	-1.234
25	Salt; sulphur; earth & ston; plastering mat	-0.25	-0.26	-0.23	-0.55	-0.19	-0.09	0.16	0.294
26	Ores, slag and ash	-0.36	-0.42	-0.59	-0.68	-0.85	-0.69	-0.67	-0.287
27	Mineral fuels, oils & product of their distillation	-0.98	-0.98	-0.98	-0.98	-0.99	-0.98	-0.99	-0.004
28	Inorgn chem; compds of prec mtl, radioactive elements	0.58	0.61	0.73	0.73	0.83	0.69	0.71	0.104
29	Organic chemicals	-0.25	-0.38	-0.34	-0.42	-0.39	-0.34	-0.38	-0.043
30	Pharmaceutical products.	0.15	0.18	-0.28	-0.32	0.12	0.08	-0.10	-0.178

Table A10 contd.

Table A10 (contd.)

HS	Product Name	RCA								RCA change 01-02 over 96-97
		1996	1997	1998	1999	2000	2001	2002		
31	Fertilizers	0.98	0.72	0.47	-0.04	-0.43	-0.90	-0.96	-1.775	
32	Tanning/dyeing extract; tannins & derivs	0.45	0.42	0.39	0.56	0.69	0.76	0.70	0.295	
33	Essential oils & resinoids; perf.	0.66	0.62	0.67	0.40	0.40	0.33	-0.39	-0.669	
34	Soap, organic surface-active agents	0.79	0.70	0.52	-0.53	-0.40	-0.42	-0.53	-1.221	
35	Albuminoid subs; modified starches; glues	0.69	0.79	0.86	0.84	0.14	0.76	0.70	-0.009	
36	Explosives; pyrotechnic prod; matches	-0.46	-0.81	-0.91	-0.97	-0.91	-0.83	-0.93	-0.245	
37	Photographic or cinematographic goods	0.84	0.62	0.37	-0.36	-0.21	-0.10	-0.64	-1.101	
38	Miscellaneous chemical products	-0.16	0.19	0.15	0.28	0.10	0.06	0.03	0.026	
39	Plastics and articles thereof	-0.18	-0.20	-0.22	-0.26	-0.22	-0.12	-0.23	0.013	
40	Rubber and articles thereof	-0.23	-0.21	-0.09	-0.14	-0.09	-0.19	-0.35	-0.049	
41	Raw hides and skins (other than furskins)	-0.65	-0.88	-0.81	-0.28	-0.03	-0.05	-0.26	0.611	
42	Articles of leather; saddlery/harness	-0.46	-0.38	0.38	-0.25	-0.12	-0.50	-0.30	0.024	
43	Furskins and artificial fur; manuf.	0.55	0.40	0.70	0.50	0.64	0.85	0.98	0.438	
44	Wood and articles of wood; wood charcoal	-0.73	-0.69	-0.56	-0.71	-0.48	-0.33	-0.16	0.465	
45	Cork and articles of cork	-1.00	-1.00	-1.00	-1.00	-0.96	-0.97	-0.91	0.059	
46	Manufactures of straw, esparto/other plaiting	0.94	1.00	1.00	-1.00	1.00	.	1.00	.	
47	Pulp of wood/of other fibrous cellulosic material	-0.99	-1.00	-1.00	-1.00	-1.00	-0.99	-1.00	0.000	
48	Paper & paperboard; art of paper pulp	-0.38	-0.17	-0.17	0.04	0.16	0.06	0.13	0.367	
49	Printed books, newspapers, pictures	0.07	0.40	0.34	-0.10	-0.38	-0.11	-0.01	-0.298	
50	Silk	0.91	1.00	1.00	1.00	0.02	0.60	-1.00	-1.159	
51	Wool, fine/coarse animal hair, horsehair	-0.30	-0.51	-0.76	0.32	0.31	-0.09	-0.68	0.016	
52	Cotton	-0.91	-0.81	-0.46	-0.98	-1.00	-0.97	-0.94	-0.093	
53	Other vegetable textile fibres; paper yarn	0.53	-0.15	-0.07	0.58	0.02	-0.65	-0.63	-0.823	
54	Man-made filaments	-0.04	0.61	0.52	0.07	0.00	-0.39	-0.36	-0.658	
55	Man-made staple fibres	-0.63	-0.70	-0.76	-0.42	-0.70	-0.69	-0.78	-0.069	
56	Wadding, felt & nonwoven; yarns; twine	-0.08	0.09	0.09	-0.07	0.00	-0.13	-0.05	-0.092	
57	Carpets and other textile floor coverings	-0.26	1.00	0.96	0.98	0.99	1.00	0.98	0.622	
58	Special woven fab; tufted tex fab; lace	-0.59	-0.95	-0.85	-0.78	-0.68	-0.63	-0.97	-0.031	
59	Impregnated, coated, cover/laminated textile	-0.17	0.13	-0.27	0.01	-0.15	-0.46	-0.59	-0.505	
60	Knitted or crocheted fabrics	0.55	0.90	-0.40	-0.04	0.45	0.67	0.80	0.007	
61	Art of apparel & clothing access, knitted	0.76	0.83	-0.50	0.37	0.53	0.61	0.29	-0.343	
62	Art of apparel & clothing access, not knitted	0.78	0.76	0.39	0.22	-0.25	-0.55	-0.48	-1.284	
63	Other made up textile articles; sets	-0.12	-0.11	-0.46	0.37	0.39	0.11	0.42	0.384	

Table A10 contd.

Table A10 (contd.)

HS	Product Name	RCA							RCA change
		1996	1997	1998	1999	2000	2001	2002	01-02 over 96-97
64	Footwear, gaiters and the like; parts	0.75	0.36	0.20	-0.16	0.14	0.28	0.05	-0.390
65	Headgear and parts thereof	0.81	0.74	0.56	-0.36	0.35	0.54	0.42	-0.296
66	Umbrellas, walking-sticks, seat-sticks, whips	0.40	-1.00	-1.00	-0.58	0.98	0.95	0.96	1.257
67	Prepr feathers & down; arti flower	1.00	-0.81	.	-1.00	.	.	.	.
68	Art of stone, plaster, cement, asbestos	0.34	0.15	0.01	-0.09	-0.04	0.14	-0.07	-0.216
69	Ceramic products	0.38	0.24	0.39	-0.15	0.12	0.21	0.26	-0.081
70	Glass and glassware	0.43	0.15	0.11	0.47	0.57	0.54	0.41	0.178
71	Natural, cultured pearls, precious stones and metals	.	.	.	.	.	.	.	.
72	Iron and steel	0.60	0.60	0.59	0.66	0.69	0.57	0.27	-0.179
73	Articles of iron or steel	0.82	0.85	0.81	0.77	0.80	0.68	0.59	-0.202
74	Copper and articles thereof	-0.68	-0.50	-0.39	0.24	-0.10	-0.53	-0.63	0.013
75	Nickel and articles thereof	-0.97	-0.99	-0.92	-0.92	-0.86	-0.84	-0.87	0.120
76	Aluminium and articles thereof	-0.09	0.24	0.26	0.59	0.51	0.39	0.22	0.226
78	Lead and articles thereof	0.76	0.63	0.87	0.97	0.78	0.77	0.34	-0.141
79	Zinc and articles thereof	-1.00	-0.95	-0.99	-0.98	-0.95	-1.00	-1.00	-0.025
80	Tin and articles thereof	-1.00	-1.00	-0.98	-1.00	0.64	-1.00	0.64	0.820
81	Other base metals; cermet; articles thereof	-0.10	-0.17	-0.27	0.07	-0.43	0.26	0.03	0.280
82	Tool, implement, cutlery, spoon & fork	-0.35	-0.66	-0.62	-0.55	-0.23	-0.27	-0.43	0.152
83	Miscellaneous articles of base metal	0.35	0.68	0.20	0.29	0.38	0.28	0.18	-0.283
84	Nuclear reactors, boilers, mchy & mech appliances	-0.10	-0.13	0.00	0.05	-0.04	-0.04	0.12	0.158
85	Electrical mchy equip parts thereof	0.21	0.32	0.13	0.22	0.18	0.32	0.30	0.043
86	Railw/tramw locom, rolling-stock & parts thereof	0.49	0.05	-0.39	-0.34	-0.13	0.38	0.55	0.193
87	Vehicles o/t railw/tramw roll-stock	-0.08	-0.25	-0.34	-0.51	-0.18	-0.26	-0.49	-0.206
88	Aircraft, spacecraft, and parts thereof	0.44	0.14	0.15	-0.44	0.24	0.05	0.25	-0.140
89	Ships, boats and floating structures	0.98	0.83	0.90	0.96	0.89	0.88	0.78	-0.076
90	Optical, photo, cine, meas, checking	0.10	-0.20	-0.09	0.03	-0.15	-0.01	-0.16	-0.034
91	Clocks and watches and parts thereof	-0.91	-0.95	-0.98	-0.98	-0.99	-0.92	-1.00	-0.029
92	Musical instruments	0.07	0.35	0.66	0.26	1.00	0.94	0.85	0.679
93	Arms and ammunition	.	.	.	.	.	.	.	.
94	Furniture; bedding, mattress, matt support	0.82	0.85	0.79	0.80	0.78	0.74	0.63	-0.152
95	Toys, games & sports requisites; parts	0.69	0.63	0.64	0.58	0.37	0.78	0.67	0.070
96	Miscellaneous manufactured articles	0.39	0.44	0.52	0.18	0.45	0.39	0.66	0.108
97	Works of art, collectors' pieces and antiques	-1.00	.	-1.00	0.72	-1.00	-0.96	-0.12	.
	<b>Total (calculated)</b>	<b>-0.23</b>	<b>-0.36</b>	<b>-0.42</b>	<b>-0.40</b>	<b>-0.25</b>	<b>-0.23</b>	<b>-0.33</b>	<b>0.010</b>

Source: Own calculations based on COMTRADE data.



Figure A1

Gross value added per capita in 2002, in EUR at PPP, by region

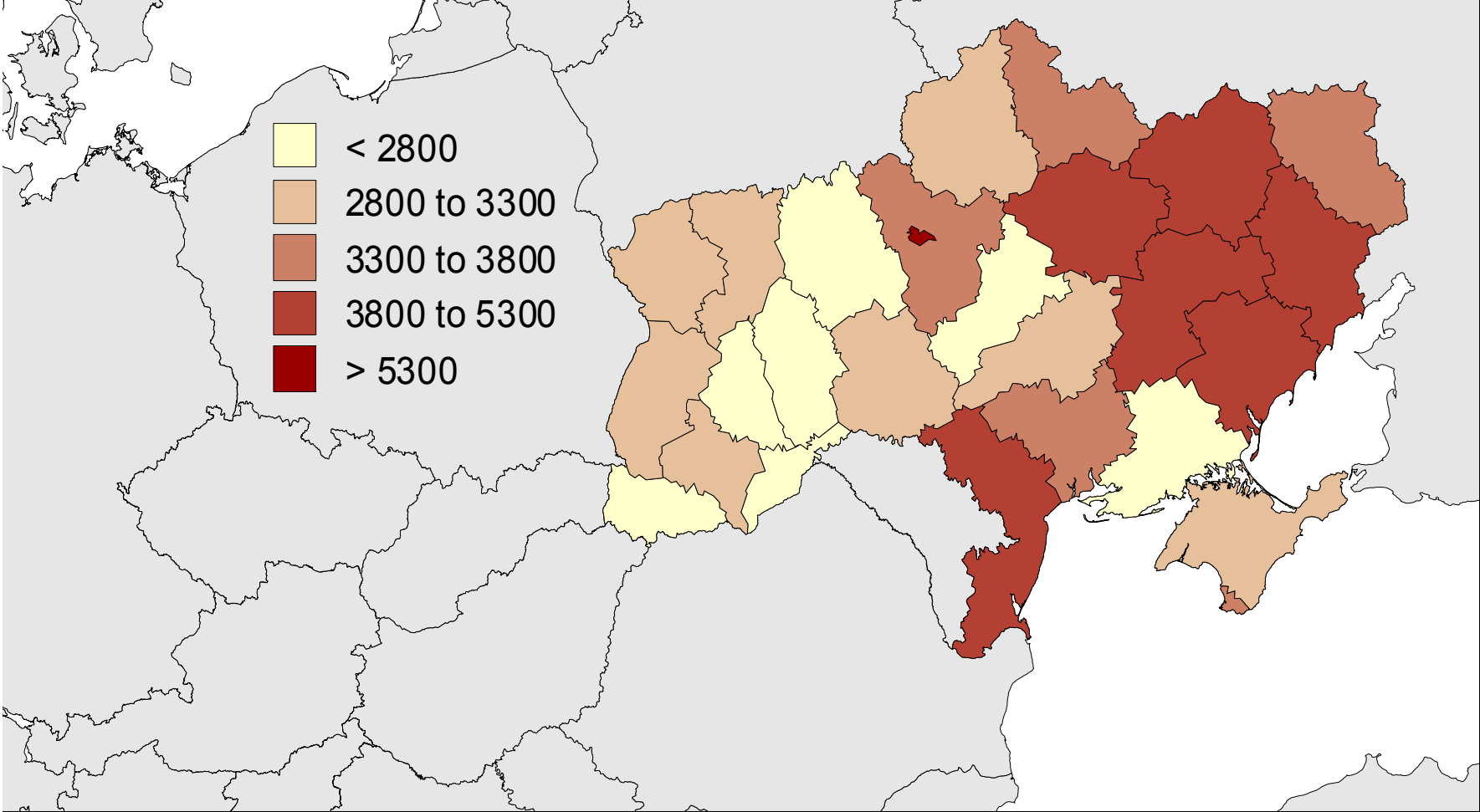


Figure A2

Presidential elections: repeated voting of the second round on 26 December 2004, by region

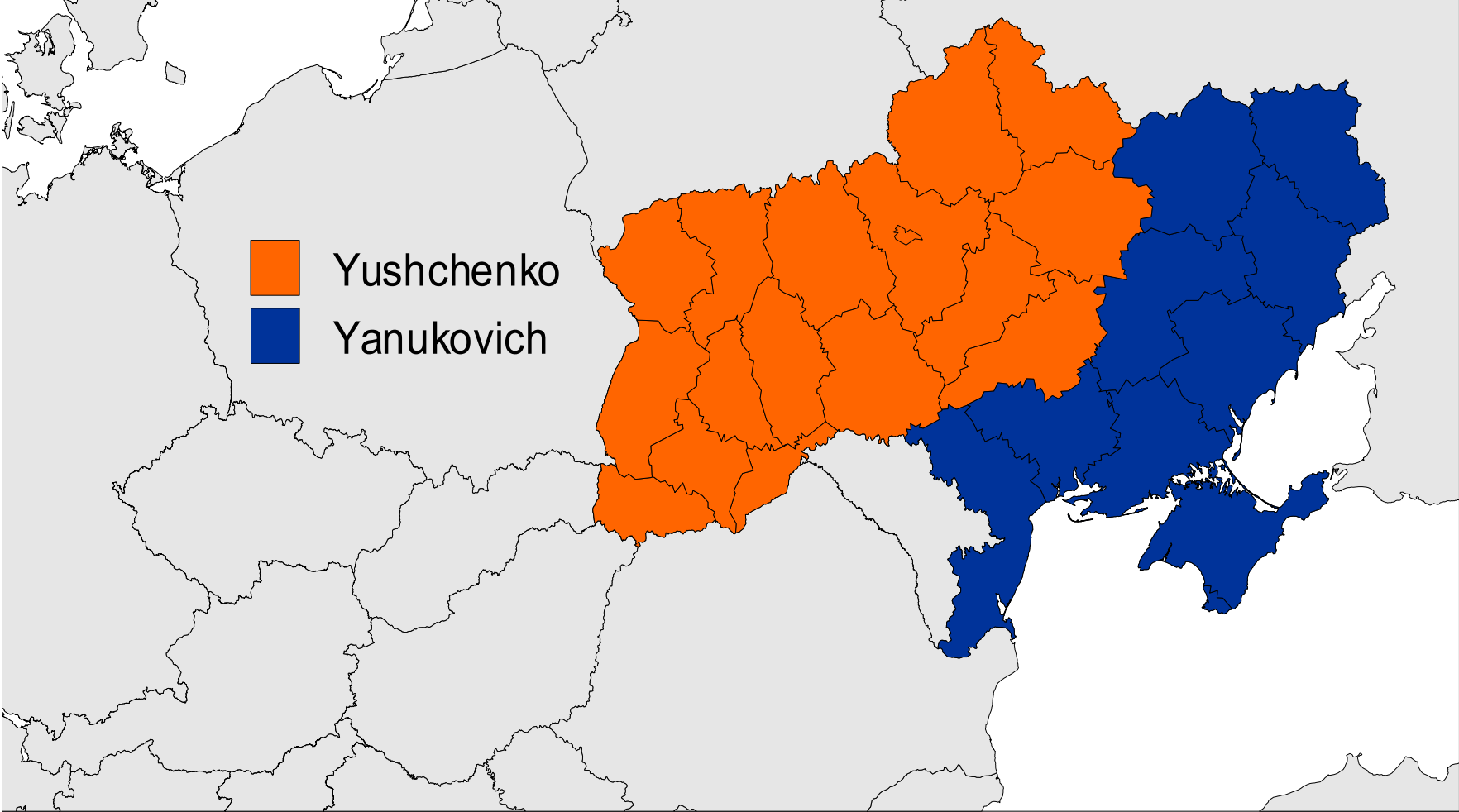


Table A11

## Ukraine: Selected indicators of agriculture

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2004	2005
																2004	2005
																January-October	
<b>Gross agricultural output (GAO)</b>																	
Total, UAH mn	0.6	1.1	14.8	548.9	2968.7	16980	26700	29582	32758	41400	54356	65200	65300	64473	.	.	.
Crops, UAH mn	0.3	0.5	7.5	.	1514.0	8900	15200	18500	18500	25100	32800	39300	39300	35500	.	.	.
Livestock, UAH mn	0.3	0.6	7.3	.	1454.7	8100	11500	11500	14300	16300	21500	25900	26000	29000	.	.	.
Total, 1990=100	100.0	86.8	79.6	80.8	67.5	65.1	58.9	57.9	52.3	48.7	53.5	58.9	59.6	53.1	63.6	.	.
Crops, 1990=100	100.0	82.9	84.1	94.1	72.1	74.1	67.5	71.6	59.3	53.2	64.8	72.9	71.7	61.0	81.5	.	.
Livestock, 1990=100	100.0	90.0	75.9	70.0	63.8	57.3	51.4	45.1	46.2	45.2	43.0	46.0	48.6	45.5	46.1	.	.
Total, growth rate	-3.7	-13.2	-8.3	1.5	-16.5	-3.6	-9.5	-1.8	-9.6	-6.9	9.8	10.2	1.2	-11.0	19.9	19.6	1.4
Crops, growth rate	-6.6	-17.1	1.5	11.9	-23.3	2.7	-8.9	6.1	-17.2	-10.3	21.9	12.4	-1.6	-14.9	33.6	.	.
Livestock, growth rate	-1.2	-10.0	-15.6	-7.8	-8.9	-10.1	-10.3	-12.2	2.5	-2.4	-4.7	7.0	5.6	-6.2	1.2	.	.
<b>Price indices, 1990=100</b>																	
Producer input prices	100.0	160.0	6190.0	34804	2885450	16418200	28133260	31509250	34817730	.	.	.	.	.	.	.	.
Producer output prices	100.0	192.0	3555.8	140810	936385	4129455	6772307	7117695	7829465	10115668	15760211	16548221	14463145	17442553	18576319	.	.
Consumer prices (food)	100.0	186.0	2566.8	131677	1360353	5110848	7472060	8488260	9489874	12128059	16312239	18661201	18661201	19818196	22049724	.	.
<b>Price indices, previous year=100</b>																	
Producer input prices	.	160.0	3868.8	5622.6	829.1	569.0	171.4	112.0	110.5	.	.	.	.	.	.	.	.
Producer output prices	.	192.0	1852.0	3960.0	665.0	441.0	164.0	105.1	110.0	129.2	155.8	105.0	87.4	120.6	106.5	108.9	110.4
Consumer prices (food)	.	186.0	1380.0	1033.1	375.7	146.2	113.6	113.6	111.8	127.8	134.5	114.4	100.0	106.2	111.3	110.5	117.6
Share of food and non-alcoholic beverages in household consumption expenditures, %	38.4	41.6	.	.	52.1	50.3	48.2	45.5	47.5	60.2	64.2	61.9	60.4	59.9	.	.	.
<b>Agricultural land, th. ha</b>																	
Agricultural land, total	42030	41973	41930	41890	41862	41853	41840	41854	41827	41830	41827	41817	41800	41789	41764	.	.
Cultivated agric. land (excl. meadows, pastures)	34633	34507	34457	34417	34357	34323	34211	34081	34037	33992	33917	33893	33862	33820	.	.	.
Arable land, total	33571	33430	33363	33334	33291	33286	33189	33081	32858	32670	32564	32537	32544	32480	.	.	.
<b>Sown area, th. ha</b>																	
Grain total	14583	14671	13903	14305	13526	14152	13248	15051	13718	13154	13647	15586	15448	12495	15434	.	.
Wheat	7576	7022	6328	5772	4599	5509	6148	6674	5793	6047	5619	7113	7126	2828	6932	.	.
Rye	519	491	500	511	490	609	637	710	736	638	669	924	787	404	737	.	.
Maize	1233	1461	1161	1343	668	1174	703	1678	1030	793	1364	1291	1311	2170	2467	.	.
Barley	2729	3191	3451	4242	5193	4507	3653	3908	3899	3618	3985	4097	4531	5172	4678	.	.
Oats	492	497	495	516	625	570	515	574	614	575	521	594	557	602	538	.	.
Sunflower	1636	1601	1641	1637	1784	2020	2107	2065	2531	2889	2943	2506	2834	4001	3521	.	.

Table A11 contd.

Table A11 (contd.)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2004	2005
	January-October																
Sugarbeet	1607	1558	1498	1530	1485	1476	1359	1104	1017	1022	856	972	897	773	732	.	.
Potatoes	1429	1533	1702	1552	1534	1535	1547	1579	1513	1552	1629	1604	1590	1585	1556	.	.
Vineyards	176	171	171	163	162	155	148	139	126	116	110	105	103	99	97	.	.
Fruits - productive sown area	851	842	834	818	804	794	772	752	468	450	425	402	369	338	316	.	.
Vegetables	456	477	500	474	460	503	476	480	459	497	541	492	479	480	476	.	.
Pulse	1424	1376	1271	1239	1221	1103	865	750	631	514	408	432	486	558	387	.	.
<b>Crops production, th. tonnes</b>																	
Grain total	51009	38674	38537	45623	35497	33930	24571	35472	26471	24581	24459	39706	38804	20234	41809	38393	40065
Wheat	30374	21155	19507	21831	13857	16273	13547	18404	14937	13585	10197	21348	20556	3599	17520	.	.
Rye	1260	982	1158	1180	942	1208	1094	1348	1140	919	968	1820	1509	620	1589	.	.
Maize	4737	4747	2851	3786	1539	3392	1837	5340	2301	1737	3848	3641	4180	6875	8867	.	.
Barley	9169	8047	10106	13549	14509	9633	5726	7407	5870	6425	6872	10186	10364	6833	11085	.	.
Oats	1303	945	1246	1479	1385	1116	731	1062	741	760	881	1116	943	941	1007	.	.
Sunflower	2571	2311	2127	2075	1569	2860	2123	2308	2266	2794	3457	2251	3271	4254	3050	3164	4858
Sugarbeet	44264	36168	28783	33717	28138	29650	23009	17663	15523	14064	13199	15575	14452	13392	16600	15019	14446
Potatoes	16732	14550	20277	21009	16102	14729	18410	16701	15405	12723	19839	17344	16619	18453	20755	20697	19339
Wine grapes	836	673	657	666	395	457	498	319	270	306	514	336	359	505	374	.	.
Fruits	2902	1537	2122	2798	1153	1837	1964	2794	1178	766	1453	1110	1211	1697	1635	.	.
Vegetables	6666	5932	5310	6547	5142	5880	2070	5168	5492	5324	5821	5907	5827	6538	6964	6379	6755
Pulse	3266	1965	2986	2898	2636	1570	1122	1077	772	628	652	827	810	571	812	.	.
<b>Yield per hectare, kg, (wiiv calc.)</b>																	
Grain total	3498	2636	2772	3189	2624	2398	1855	2357	1930	1869	1792	2548	2512	1619	2709	.	.
Wheat	4009	3013	3083	3782	3013	2954	2203	2758	2578	2247	1815	3001	2885	1273	2527	.	.
Rye	2428	2000	2316	2309	1922	1984	1717	1899	1549	1440	1447	1969	1917	1535	2156	.	.
Maize	3842	3249	2456	2819	2304	2889	2613	3182	2234	2190	2820	2820	3188	3168	3594	.	.
Barley	3360	2522	2928	3194	2794	2137	1567	1895	1506	1776	1724	2486	2287	1321	2370	.	.
Oats	2648	1901	2517	2866	2216	1958	1419	1850	1207	1322	1693	1879	1693	1563	1872	.	.
Sunflower	1572	1443	1296	1268	879	1416	1008	1118	895	967	1175	898	1154	1063	866	.	.
Sugarbeet	27544	23214	19214	22037	18948	20088	16931	15999	15264	13761	15427	16029	16111	17325	22678	.	.
Potatoes	11709	9491	11914	13537	10497	9595	11900	10577	10182	8198	12176	10812	10452	11642	13339	.	.
Wine grapes	4750	3936	3842	4086	2438	2948	3365	2295	2143	2638	4673	3197	3485	5100	3856	.	.
Fruits	3410	1825	2544	3421	1434	2315	2544	3715	2517	1702	3419	2761	3282	5021	5174	.	.
Vegetables	14618	12436	10620	13812	11178	11690	4349	10767	11965	10712	10768	12004	12165	13621	14630	.	.
Pulse	2294	1428	2349	2339	2159	1423	1297	1436	1223	1222	1598	1914	1667	1023	2098	.	.
<b>Fertilizers in use, 100% nutrients, th tons <sup>1)</sup></b>																	
Nitrogen - N	1836.0	.	1338.0	841.0	774.0	625.0	373.0	413.0	405.8	327.2	223.3	318.2	313.1	.	.	.	.
Phosphate - P <sub>2</sub> O <sub>5</sub>	1457.0	.	532.0	262.0	140.0	130.0	97.0	104.0	76.6	62.0	37.6	52.0	55.0	.	.	.	.
Potassium - K <sub>2</sub> O	1059.0	.	822.0	242.0	220.0	135.0	55.0	45.0	32.0	28.5	17.8	30.8	31.1	.	.	.	.

Table A11 contd.

Table A11 (contd.)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2004	2005
																January-October	
<b>Fertilizers in use, 100% nutrients, kg per ha <sup>1)2)</sup></b>																	
Nitrogen - N	53.0	.	51.4	31.3	29.2	23.9	14.4	16.2	16.2	13.4	11.4	18.0	16.4	.	.	.	.
Phosphate - P <sub>2</sub> O <sub>5</sub>	42.1	.	20.4	9.8	5.3	5.0	3.8	4.1	3.1	2.5	1.9	2.9	2.9	.	.	.	.
Potassium - K <sub>2</sub> O	30.6	.	31.6	9.0	8.3	5.2	2.1	1.8	1.3	1.2	0.9	1.7	1.6	.	.	.	.
<b>Livestock inventories, th. heads, end of year</b>																	
Cattle	24623	23728	22457	21607	19624	17557	15313	12759	11722	10626	9424	9421	9108	7712	6953	7565	7088
Cows	8378	8263	8057	8078	7818	7531	6972	6265	5841	5431	4958	4918	4716	4284	3953	.	.
Pigs	19427	17839	16175	15298	13946	13144	11236	9479	10083	10073	7652	8370	9204	7322	6466	7190	7368
Sheep	8419	7829	7237	6863	5575	4099	3047	2362	2026	1885	1875	1965	1984	1859	1770	1914	1869
<b>Animal production <sup>3)</sup></b>																	
Meat prod. total, (live weight), th. tonnes	6880	6390	5456	4525	4414	3759	3425	3039	2719	2647	2600	2317	2518	2607	2387	1828.5	1794.4
Beef and veal	3970	3756	3312	2752	2858	2372	2096	1860	1586	1548	1476	1283	1390	1413	1230	.	.
Pork	1970	1776	1475	1266	1145	1008	986	888	835	802	845	760	765	780	710	.	.
Lamb	92	80	70	62	88	80	64	48	42	37	34	32	30	30	35	.	.
Poultry	787	727	553	402	295	261	242	207	222	224	214	211	300	350	370	.	.
Other meat	61	51	46	43	28	38	37	36	34	36	31	31	33	34	42	.	.
Milk production, total, mn litres <sup>4)</sup>	24508	22409	19114	18376	18137	17274	15821	13768	13736	13362	12658	13444	14142	13661	13739	12100	12132
Eggs total, mn pcs	16287	15188	13496	11794	10154	9404	8753	8246	8270	8740	8809	9668	11309	11477	11958	10401	11238
Wool (unscoured), tonnes	29800	26600	23100	20500	19300	13925	9300	6700	4600	3746	3395	3300	3400	3344	3176	3005	.
<b>Animal productivity</b>																	
Milk yield, litres per cow	2863	2662	2304	2273	2240	2204	2103	1988	2219	2358	2359	2709	2873	2887	3465	.	.
Egg yield, pieces per hen <sup>5)</sup>	214	203	190	174	162	171	169	187	199	200	213	235	246	254	273	.	.
<b>Food consumption, per capita</b>																	
Meat and meat products, kg	68.0	65.5	53.4	46.0	44.0	39.0	37.0	35.0	33.0	33.0	33.0	31.0	33.0	35.0	38.0	.	.
Fish, kg	17.5	12.2	7.3	3.7	3.5	3.6	4.3	5.0	5.9	7.3	8.4	11.0	11.9	12.0	12.0	.	.
Milk and dairy products (incl. butter), litre	373.0	345.5	284.5	264.0	256.0	244.0	231.0	211.0	214.0	211.0	199.0	205.0	225.0	226.0	226.0	.	.
Eggs, pieces	272.0	256.0	227.0	206.0	183.0	171.0	161.0	152.0	154.0	163.0	166.0	180.0	209.0	214.0	220.0	.	.
Cereal products, kg <sup>6)</sup>	141.0	143.0	142.5	144.5	134.8	128.4	124.0	127.0	126.0	122.0	125.0	130.0	131.0	125.0	125.0	.	.
Vegetable oils, kg	11.6	11.2	10.6	10.0	8.7	8.2	8.6	8.5	8.3	9.0	9.4	10.0	10.7	11.3	13.0	.	.
Sugar and sugar products, kg	50.0	50.0	45.0	39.0	33.0	31.6	33.0	31.0	32.0	33.0	37.0	40.0	36.0	36.0	38.0	.	.
Potatoes, kg	131.0	116.0	133.0	150.0	136.0	124.0	128.0	135.0	130.0	123.0	135.0	140.0	133.0	138.0	140.0	.	.
Fruits, kg	47.0	36.0	38.0	40.0	26.8	33.4	35.0	40.0	28.0	22.0	29.0	26.0	29.0	33.0	31.0	.	.
Vegetables, kg	102.0	102.5	89.0	90.0	84.0	97.0	92.0	91.0	94.0	96.0	101.0	105.0	108.0	114.0	115.0	.	.
Alcoholic beverages, 100%, litre; wiiw calc. <sup>7)</sup>	4.1	4.1	3.6	3.3	2.0	1.6	1.0	1.2	1.2	1.3	1.4	1.5	1.6	1.8	2.2	.	.

Notes: 1) Agricultural enterprises only. - 2) kg per ha cultivated agricultural land. - 3) Calculated from slaughtered weight by wiiw. - 4) Including feeding milk. - 5) Excluding private farm plots. - 6) Including pulses. - 7) Sale

Source: wiiw Database incorporating national statistics.

Table A12

**Export duties on agro-food products in Ukraine between 1993 and 2002, %**

	1993 January	1993 December	1996 May	1999 September	2002 Export duties in force in October 2002
Live cattle: weight up to 350 kg	30	0	75%, but not less than 1500 ECU/ton	75%, but not less than 1500 ECU/ton	75%, but not less than 1500 EUR/ton
Live cattle: weight over 350 kg	30	0	55%, but not less than 540 ECU/ton	55%, but not less than 540 ECU/ton	55%, but not less than 540 EUR/ton
Live sheep	30	0	50%, but not less than 390 ECU/ton	50%, but not less than 390 ECU/ton	50%, but not less than 390 EUR/ton
Frozen beef	30	0	0	0	0
Pork fresh, chilled, or frozen	30	0	0	0	0
Non-fat powdered milk	30	0	0	0	0
Powdered whole milk	30	0	0	0	0
Butter	30	0	0	0	0
Wheat	30	0	0	0	0
Barley	30	0	0	0	0
Wheat flour	30	0	0	0	0
Cereals, grist, and pearls	30	0	0	0	0
Sunflower seeds	30	0	0	23	17
Flax and false flax seeds	30	0	0	23	17
Sunflower oil	30	0	0	0	0
Sugar	30	0	0	0	0
Molasses	10	0	0	0	0
Ethyl alcohol	30	0	0	0	0
Cattle hides	30	0	30%, but not less than 400 ECU/ton	30%, but not less than 400 ECU/ton	30%, but not less than 400 EUR/ton
Sheep hides	30	0	30%, but not less than 1 ECU/piece	30%, but not less than 1 ECU/piece	30%, but not less than 1 EUR/piece
Pig hides	30	0	27%, but not less than 170 ECU/ton	27%, but not less than 170 ECU/ton	27%, but not less than 170 EUR/ton

Source: Ukrainian Customs Committee, 2002; OECD and World Bank (2004).

Table A13

## Ukraine's MFN import duties on selected agro-food products, 1993 to 2002

	1993 Decree of the Cabinet of Ministers 11.01.93, No. 4-93	1996 Regulation of the Cabinet of Ministers 16.01.96 No. 94	1996 Regulation of the Cabinet of Ministers 05.10.96 No. 1221	1996 Regulation of the Cabinet of Ministers 08.11.96 No. 1378	1997 Law 17.07.97 No 468/97-BP	1998 Regulation of the Cabinet of Ministers 09.12.98 No. 1935	2001 Law 05.04.01 No 2371-III (Customs Tariff of Ukraine)	2001 Law 12.07.01 No 2671-III
Frozen beef	5%			30%, but not less than ECU/kg 0.4	30%, but not less than ECU/kg 1	ECU/kg 1		
Pork	5%			30%, but not less than ECU/kg 0.5	30%, but not less than ECU/kg 1	ECU/kg 1		
Poultry meat	5%	30%, but not less than ECU/kg 0.7			30%, but not less than ECU/kg 1.5			
Butter	5%	30%, but not less than ECU/kg 1			50%, but not less than ECU/kg 1.5	ECU/kg 1.5		
Cheese and curd	5%	30%, but not less than ECU/kg 0.8			20%, but not less than ECU/kg 0.8	ECU/kg 0.8		
Eggs	5%			20%, but not less than ECU/kg 0.12	30%, but not less than ECU/piece 0.05	ECU/kg 0.05	EUR/piece 0.05	EUR/kg 0.05
Potatoes	10%	5%	50%, but no less than ECU/kg 0.16		50%, but not less than ECU/kg 0.2	ECU/kg 0.2		
Wheat	10%	15%, but not less than ECU/t 40			30%, but not less than ECU/t 40	ECU/t 40 excluding 10.01.909100		
Barley	10%			20%, but not less than ECU/kg 0.02	30%, but not less than ECU/t 20	ECU/t 20		
Maize	10%			10%, but not less than ECU/kg 0.01	30%, but not less than ECU/t 20		30%, but not less than EUR/t 20 excluding 10.5.2010	
Sunflower seeds	2%			20%, but not less than ECU/kg 0.01	50%, but not less than ECU/kg 0.5	ECU/kg 0.5	EUR/kg 0.5 excluding 12.06.0010	
Fats and oils	10%			30%, but not less than ECU/kg 0.15	30%, but not less than ECU/kg 0.15	ECU/kg 0.15		
Raw sugar	10%			50%, but not less than ECU/kg 0.2	50%, but not less than ECU/kg 0.3			

Note: Blank space means that the tariff was not changed and the previous tariff is applied.

Source: Ukrainian Custom Tariff Laws and Regulations; OECD and World Bank (2004).

Table A14

**Ukraine's MFN import tariffs on selected agro-food products in ad valorem terms,  
1993 to 2001**

	Wheat	Maize	Barley	Sunflower	Sugar	Beef	Pigmeat	Poultry	Eggs
<b>1993</b>	10	10	10	2	10	5	5	5	5
<b>1994</b>	10	10	10	2	10	5	5	5	5
<b>1995</b>	10	10	10	2	10	5	5	5	5
<b>1996</b>	25	10	12	5	17	9	9	59	8
<b>1997</b>	63	20	25	136	90	57	33	82	56
<b>1998</b>	58	30	33	253	130	72	67	177	113
<b>1999</b>	51	30	28	241	160	91	89	134	8
<b>2000</b>	39	30	19	287	125	75	62	149	6
<b>2001</b>	44	30	20	263	108	56	52	137	29

*Note:* In all cases, these are MFN tariffs expressed in ad valorem terms. Therefore, they do not reflect Ukraine's regional and bilateral trade agreements providing preferential access to Ukraine's market and/or loopholes in the existing legislation allowing for imports at zero or low tariffs. For the period 1993–1995, ad valorem tariffs at the levels officially announced are included. Between 1996 and 2001, for those products for which the so-called “combined tariffs” were applied (e.g. 30%, but not less than ECU 100 per ton), specific components were converted into their ad valorem equivalents according to the formula: (specific tariff/reference price as derived from the PSE data base)\*100. In most cases specific components were higher than announced ad valorem tariffs, therefore with some exceptions (e.g. ad valorem import tariffs on maize between 1998 and 2001 were higher than ad valorem equivalents of specific duties) ad valorem equivalents of specific tariffs were included in the Table. For the period 1999–2001, specific tariffs were converted into their ad valorem equivalents according to the same formula as above. Under the formula applied, changes in the calculated ad valorem equivalents of specific tariffs reflect both changes in the specific tariffs and fluctuations in the reference prices.

*Source:* OECD PSE/CSE data base for Ukraine; OECD and World Bank (2004).



Table A15

**Agro-food foreign trade**

current prices, EUR million

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2004 January-September	2005
Total exports, fob, EUR mn	11357.4	12549.5	11283.2	10856.4	15771.2	18158.7	19004.2	20396.9	26278.7	19443.8	19998
of which:											
<b>Agro-food exports</b> <sup>1)</sup>	1409.4	1587.8	1231.5	1329.7	1490.6	2036.2	2528.2	2415.9	2793.2	1955.7	2259.8
Live animals, animal products	468.1	386.8	243.6	256.9	396.4	507.4	401.8	462.7	521.6	404.8	427.9
Vegetable products	684.3	488.2	574.0	677.9	398.1	774.0	1186.1	659.5	914.9	527.4	847.9
Oils, fats and waxes	146.4	107.4	117.8	106.2	259.9	251.7	362.1	494.1	439.2	353.8	281.1
Prep. foodstuffs, beverages, tobacco	110.6	605.5	296.2	288.6	436.3	503.1	578.2	799.5	917.5	669.8	703.0
Total imports, cif, EUR mn	13883.1	15103.3	13103.0	11104.3	15103.9	17612.0	17966.8	20355.6	23321.8	16873.4	20591
of which:											
<b>Agro-food imports</b> <sup>1)</sup>	1142.1	791.8	938.6	845.2	982.8	1256.6	1178.7	1922.1	1534.9	1113.7	1470.6
Live animals, animal products	249.3	168.2	197.3	182.2	113.0	203.8	150.4	167.3	253.3	164.5	243.1
Vegetable products	194.7	147.3	165.0	175.9	327.7	297.1	233.2	686.7	353.5	284.3	293.3
Oils, fats and waxes	29.1	35.1	83.6	71.2	66.2	96.6	117.2	96.6	120.1	76.2	113.6
Prep. foodstuffs, beverages, tobacco	669.0	441.1	492.8	416.0	475.9	659.2	678.0	971.4	808.0	588.7	820.7
Total balance, EUR mn	-2525.8	-2553.7	-1819.8	-247.9	667.2	546.7	1037.4	41.3	2956.9	2570.4	-592.1
of which:											
<b>Agro-food balance</b> <sup>1)</sup>	267.2	796.0	293.0	484.4	507.8	779.6	1349.5	493.8	1258.3	842.0	789.2
Live animals, animal products	218.8	218.6	46.3	74.8	283.4	303.6	251.4	295.4	268.2	240.3	184.8
Vegetable products	489.6	340.8	409.0	502.1	70.4	476.9	952.9	-27.2	561.4	243.0	554.6
Oils, fats and waxes	117.3	72.3	34.2	35.0	193.7	155.2	245.0	397.5	319.2	277.6	167.5
Prep. foodstuffs, beverages, tobacco	-558.4	164.4	-196.5	-127.4	-39.6	-156.1	-99.8	-171.9	109.5	81.0	-117.8

*Remark:* Converted from USD to EUR using the ECB/USD reference rate.

*Note:* 1) HS commodity groups 1, 2, 3, 4.

*Source:* wiiw Database incorporating national statistics.

Table A16

## Ukraine: Agro-food trade with the NMS-8, 1999 to 2004

(A) Ukraine's agro-food imports from the NMS-8	NACE rev.1	shares in total					
		1999	2000	2001	2002	2003	2004
Growing of crops; market gardening; horticulture	1.1	9.6	19.9	6.5	7.0	19.7	8.3
Farming of animals	1.2	3.2	1.9	3.8	4.6	5.0	14.3
Forestry, logging and related services activities	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Fishing, operation of fish hatcheries and fish farms	5	0.0	0.0	0.0	0.0	0.0	0.0
<b>Agro – total</b>		<b>12.8</b>	<b>21.8</b>	<b>10.3</b>	<b>11.7</b>	<b>24.8</b>	<b>22.6</b>
Meat products	15.1	6.9	6.1	6.8	6.6	8.5	13.0
Fish and fish products	15.2	11.0	7.6	11.8	14.7	11.7	6.9
Fruits and vegetables	15.3	4.6	5.3	7.0	8.4	5.5	8.2
Vegetable and animal oils and fats	15.4	7.0	3.4	2.2	2.4	0.3	1.0
Dairy products; ice cream	15.5	5.0	3.0	4.4	4.3	3.2	3.0
Grain mill products and starches	15.6	2.2	2.0	1.1	1.7	2.1	1.3
Prepared animal feeds	15.7	1.0	1.4	3.8	5.7	5.2	6.6
Other food products	15.8	41.5	47.2	51.0	41.4	34.7	30.8
Beverages	15.9	7.2	2.1	1.5	3.1	3.3	4.3
Tobacco products	16	0.9	0.1	0.0	0.1	0.7	2.2
<b>DA-Agro-food – total</b>		<b>87.2</b>	<b>78.2</b>	<b>89.7</b>	<b>88.3</b>	<b>75.2</b>	<b>77.4</b>
<b>Agro and Agro-food – total</b>		<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>(B) Ukraine's agro-food exports to the NMS-8 in percentage of imports (covering rate)</b>							
	NACE rev.1	1999	2000	2001	2002	2003	2004
Growing of crops; market gardening; horticulture	1.1	56.8	41.6	177.2	192.1	47.5	124.7
Farming of animals	1.2	33.0	28.9	88.2	36.1	13.3	147.2
Forestry, logging and related services activities	2.0	28321.9	62546.5	123640.0	30517.8	26658.8	24677.0
Fishing, operation of fish hatcheries and fish farms	5	1904.4	575.1	3864.5	2306.3	584.9	230.4
<b>Agro – total</b>		<b>102.6</b>	<b>79.7</b>	<b>243.2</b>	<b>227.0</b>	<b>75.9</b>	<b>191.0</b>
Meat products	15.1	35.7	51.0	57.1	101.1	52.6	13.1
Fish and fish products	15.2	11.5	7.5	3.4	3.8	2.3	2.1
Fruits and vegetables	15.3	11.5	30.9	26.2	30.5	48.0	46.5
Vegetable and animal oils and fats	15.4	23.3	277.6	702.3	614.6	3388.2	1636.9
Dairy products; ice cream	15.5	176.0	690.5	797.5	458.7	249.3	262.4
Grain mill products and starches	15.6	24.8	57.4	71.5	75.5	57.8	120.9
Prepared animal feeds	15.7	2.6	36.9	9.4	6.8	7.4	5.0
Other food products	15.8	1.7	2.7	3.3	5.5	7.6	10.4
Beverages	15.9	7.8	16.5	38.6	46.9	44.7	61.4
Tobacco products	16	21.5	129.8	222.9	314.9	42.0	4.0
<b>DA-Agro-food – total</b>		<b>19.0</b>	<b>49.6</b>	<b>66.9</b>	<b>56.3</b>	<b>43.9</b>	<b>48.5</b>
<b>Agro and Agro-food – total</b>		<b>29.7</b>	<b>56.2</b>	<b>85.0</b>	<b>76.2</b>	<b>51.8</b>	<b>80.8</b>
<b>Total <sup>1)</sup></b>		<b>77.7</b>	<b>85.7</b>	<b>77.4</b>	<b>78.2</b>	<b>86.0</b>	<b>81.5</b>
<b>(C) Ukraine's imports from the NMS-8 (EUR million)</b>							
Agro and Agro-food – total		<b>215.8</b>	<b>229.0</b>	<b>248.3</b>	<b>231.9</b>	<b>301.1</b>	<b>285.6</b>
Total of all goods		<b>1217.3</b>	<b>1636.4</b>	<b>2010.1</b>	<b>2264.7</b>	<b>2553.4</b>	<b>3177.6</b>

Note: 1) wiiw estimate.

Source: Eurostat COMEXT Database.

Table A17

## Ukraine: Agro-food trade with the EU-15, 1999 to 2004

(A) Ukraine's agro-food imports from the EU-15	NACE rev.1	shares in total					
		1999	2000	2001	2002	2003	2004
Growing of crops; market gardening; horticulture	1.1	16.5	20.9	18.4	17.1	22.0	18.8
Farming of animals	1.2	13.6	16.7	21.8	16.9	9.8	15.1
Forestry, logging and related services activities	2.0	0.1	0.1	0.0	0.1	0.1	0.1
Fishing, operation of fish hatcheries and fish farms	5	0.0	0.1	0.1	0.5	0.0	0.2
<b>Agro – total</b>		<b>30.3</b>	<b>37.8</b>	<b>40.3</b>	<b>34.6</b>	<b>31.9</b>	<b>34.2</b>
Meat products	15.1	5.3	4.1	6.4	9.3	6.6	11.8
Fish and fish products	15.2	0.8	1.4	2.3	2.3	2.8	3.7
Fruits and vegetables	15.3	2.1	1.7	2.4	2.0	1.5	2.4
Vegetable and animal oils and fats	15.4	7.8	5.9	7.9	9.9	7.4	7.4
Dairy products; ice cream	15.5	2.7	2.5	1.2	0.9	1.0	0.8
Grain mill products and starches	15.6	0.9	0.8	1.4	1.3	1.1	1.5
Prepared animal feeds	15.7	2.2	1.7	2.4	2.3	1.7	2.3
Other food products	15.8	22.5	20.6	23.4	25.3	23.0	25.3
Beverages	15.9	11.1	17.2	7.9	7.2	15.0	6.4
Tobacco products	16	14.2	6.3	4.6	4.9	8.0	4.2
<b>DA-Agro-food – total</b>		<b>69.7</b>	<b>62.2</b>	<b>59.7</b>	<b>65.4</b>	<b>68.1</b>	<b>65.8</b>
<b>Agro and Agro-food – total</b>		<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>(B) Ukraine's agro-food exports to the EU-15 in percentage of imports (covering rate)</b>							
	NACE rev.1	1999	2000	2001	2002	2003	2004
Growing of crops; market gardening; horticulture	1.1	386.1	232.9	554.4	976.4	167.1	241.3
Farming of animals	1.2	6.2	4.3	2.5	2.9	3.3	2.3
Forestry, logging and related services activities	2.0	12045.0	10385.4	21425.0	13489.8	5423.6	5006.9
Fishing, operation of fish hatcheries and fish farms	5	18.2	0.0	15.6	0.5	10.2	2.7
<b>Agro – total</b>		<b>270.3</b>	<b>157.3</b>	<b>278.6</b>	<b>506.0</b>	<b>132.0</b>	<b>146.5</b>
Meat products	15.1	148.3	334.6	178.8	116.1	115.3	61.9
Fish and fish products	15.2	19.5	36.4	25.3	1.9	0.1	0.4
Fruits and vegetables	15.3	409.8	675.0	348.9	398.9	563.7	294.9
Vegetable and animal oils and fats	15.4	42.8	136.6	231.2	336.2	412.7	443.2
Dairy products; ice cream	15.5	563.8	1143.3	2398.9	1119.6	731.0	1281.6
Grain mill products and starches	15.6	37.5	23.6	13.8	26.1	21.6	17.6
Prepared animal feeds	15.7	0.0	0.1	0.1	0.0	0.5	0.3
Other food products	15.8	5.2	4.0	6.3	9.6	4.6	3.7
Beverages	15.9	24.9	17.6	26.2	31.1	14.1	35.1
Tobacco products	16	0.0	0.2	1.5	0.2	1.7	0.2
<b>DA-Agro-food – total</b>		<b>56.4</b>	<b>106.5</b>	<b>120.5</b>	<b>102.2</b>	<b>84.2</b>	<b>92.5</b>
<b>Agro and Agro-food – total</b>		<b>121.2</b>	<b>125.7</b>	<b>184.2</b>	<b>241.8</b>	<b>99.4</b>	<b>110.9</b>
<b>Total</b>		<b>80.0</b>	<b>80.8</b>	<b>73.7</b>	<b>76.3</b>	<b>55.1</b>	<b>63.2</b>
<b>(C) Ukraine's imports from the EU-15 (EUR million)</b>							
Agro and Agro-food – total		<b>204.5</b>	<b>285.1</b>	<b>319.0</b>	<b>373.7</b>	<b>468.5</b>	<b>490.4</b>
Total of all goods		<b>2606.9</b>	<b>3654.9</b>	<b>4951.6</b>	<b>5491.7</b>	<b>6275.7</b>	<b>7257.7</b>

Note: 1) wiiw estimate.

Source: Eurostat COMEXT Database.



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