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EVOLVING TRADE PATTERNS IN THE CIS: THE ROLE OF MANUFACTURING

(WITH RUSSIAN ABSTRACT)

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Abstract

The CIS countries were subject to severe economic shocks in the early 1990s that have yet to be fully absorbed; this is especially true for their manufacturing industries. Manufactured exports fell dramatically after the breakup of the Soviet Union both absolutely and as a percentage of total trade; more recently manufactures have been growing at about the same rate as total exports for most of the CIS. Currently, manufactured exports as a share of total trade vary considerably across the CIS from relatively high levels in Belarus and Ukraine to very low levels for the central Asian CIS. Overall, however, the shares of manufactured exports (as well as imports) are low, relative to world averages. In terms of both manufactures and non-manufactures there has been limited progress in diversifying their export structures to cover a wider range of goods; in fact over the last five years commodity export concentration has increased in all of the CIS except Armenia. Currently most of CIS manufactures exports are in SITC 6; somewhat surprising is the absence of chemical exports given their natural resource base and the absence of apparel exports given their factor endowments and technological levels. Their exports of high-skilled goods are low (and declining) even compared to developing countries; there is really no significant difference in this regard between their exports to the other CIS and the rest of the world. Somewhat inconsistent with the previous statement however, is the finding that the CIS generally export products that are typically exported by countries much richer than themselves; this is especially the case for their exports to each other. There are a number of explanations that might reasonably explain this result for most of the CIS but the magnitude of this tendency is unexplainably large for several (Armenia, Moldova, and Ukraine).

Over the last decade the CIS have significantly diversified their geographical destinations for exports of natural resource and raw materials but have been less successful in terms of promoting their manufactures. Nevertheless Russia remains either the largest import or export partner for all of the CIS and in several cases is the largest for both. Currently, the CIS under-rely on the other CIS for their imports of manufactures but over-rely on them as a destination for their own manufactures exports. The trade of the CIS is noteworthy to the degree to which there is a relative absence of intra-industry trade; this is even more the case for manufactures. In several respects this results from the fact that each of the CIS exports its own set of products for which there is limited overlap. To some degree this is due to legacy effects from Soviet times when there was considerable geographical specialization. In addition this anomaly of CIS trade shows no signs of converging to world norms. CIS products appear to be of relatively low quality and this is especially the case for manufactured capital goods. The study also describes the current trade policy issues facing the region focusing on the advantages of forming preferential trading arrangements versus WTO membership and the degree to which these are complementary. The longer-run prospects for manufacturing and policy options for promoting manufacturing sectors are also explored.

Развитие структуры торговли в СНГ: роль обрабатывающей промышленности

Роберт Шелберн и Оксана Пидуфала

Аннотация: В начале 1990-х годов, страны СНГ пережили сильные экономические потрясения, результаты которых ощущаются и сегодня, особенно в сфере отраслей обрабатывающей промышленности. После распада Советского Союза значительно снизился как абсолютный уровень экспорта продукции отраслей обрабатывающей промышленности, так и её доля во внешнеторговом обороте; тем не менее, в последнее время экспорт продукции обрабатывающей промышленности растёт такими же темпами, что и общий экспорт большинства стран СНГ. При этом, экспорт продукции отраслей обрабатывающей промышленности как доля торгового оборота значительно варьируется в этих странах, от высокого уровня в Белоруссии и Украине до очень низкого в центрально-азиатских государствах. В целом, однако, доля экспорта (и импорта) продукции обрабатывающей промышленности в торговом обороте стран СНГ по-прежнему значительно ниже среднемировых показателей; более того, диверсификация структуры экспорта продукции обрабатывающей и необрабатывающей промышленностей этих стран происходит очень медленно.

В данное время, большая часть экспорта продукции отраслей обрабатывающей промышленности стран СНГ находится в шестой категории Международной Стандартной Торговой Классификации. Вызывает удивление тот факт, что, невзирая на наличие богатой базы природных ресурсов, уровня технологических мощностей и обеспеченности факторами производства, в этих странах отсутствует экспорт товаров химической и лёгкой промышленностей. Даже по сравнению с развивающимися странами, уровень экспорта товаров произведенных высококвалифицированной рабочей силой в СНГ весьма низок и продолжает сокращаться. В этом отношении, структура экспорта внутри СНГ незначительно отличается от экспорта этих стран на внешний рынок. Тем не менее, всему вышесказанному противоречит вывод данного исследования о несоответствии экспорта уровню развития: страны СНГ экспортируют товары, характерные для экспорта более богатых стран, что особенно заметно в структуре экспорта внутри СНГ. Этот феномен вполне объясним в большинстве стран СНГ, однако в некоторых странах (Армения, Молдова, Украина) его масштаб настолько велик, что с трудом поддается объяснению.

На протяжении последнего десятилетия, страны СНГ добились значительной географической диверсификации экспорта природных ресурсов и сырьевых товаров, но, в то же время, им не удалось должным образом развить экспорт продукции отраслей обрабатывающей промышленности. Несмотря на это, Россия сохраняет позицию крупнейшего экспортёра или импортёра для всех государств СНГ, а в некоторых случаях является крупнейшим импортёром и экспортёром одновременно. В настоящее время, страны СНГ недостаточно полагаются на импорт продукции отраслей обрабатывающей промышленности из других стран СНГ, предпочитая видеть в своих соседях преимущественно импортёров их собственных производств обрабатывающей промышленности. Важно отметить, что в странах СНГ практически отсутствует внутриотраслевая торговля, особенно в сфере обрабатывающей промышленности. В некоторых случаях это является следствием специализации каждой страны СНГ на производстве различных товаров, мало связанных между собой, что, в свою очередь, в некоторой мере, вызвано наследием размещения производительных сил в СССР, основной отличительной чертой которого была географическая концентрация производства. Эта аномалия торговли государств СНГ сохраняется и продолжает существенно отличаться от мировой практики. Товары стран СНГ характеризуются относительно низким качеством, особенно товары производственного назначения отраслей обрабатывающей промышленности.

Исследование также включает обзор текущих проблем торговой политики региона, в том числе сравнение преимуществ преференциальных торговых соглашений и членства в ВТО, и их взаимодополняемость. В работе также рассмотрены долгосрочные перспективы и стратегии развития секторов обрабатывающей промышленности.

I. Introduction

One of the most fundamental economic and political developments that have occurred in the global economy over the last 15 years has been the ongoing integration of the ex-communist countries into the world trading system. While the integration of China has recently attracted a wealth of analysis, equally important politically, although perhaps less so from a strictly economic point of view, has been the return to the global economy of the states created out of the former Soviet Union. Three of the former republics – Estonia, Latvia, and Lithuania – have now joined the European Union and appear to be adjusting successfully in this new institutional structure. Russia is the largest country in the world in terms of area and the largest natural gas producer as well as owner of natural gas reserves, the second most powerful in terms of nuclear capabilities and the second largest producer of crude oil; much of Europe is highly dependent on imports of Russian energy supplies and this is projected to increase further in the future. As such, economic developments there, are of critical importance to the global economy. Azerbaijan and Kazakhstan also have considerable energy resources and may ultimately do well, but the other members of the Commonwealth of Independent States (CIS),[1] including the European Belarus, Moldova and Ukraine, the Caucasian Armenia and Georgia, and the central Asian Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan face numerous and difficult development challenges.

At the beginning of the 1990s, the Soviet Union was hit with a "perfect storm" of negative shocks with the break-up of its economic system which had already largely collapsed,[2] its international trading regime (i.e., the Council for Mutual Economic Assistance or CMEA), and the country itself.[3] The newly created 15 independent states of the former Soviet Union (FSU) experienced a major decade long "transitional" recession accompanied by rising poverty, inequality and unemployment.[4] Two segments of these economies, which were particularly hard-hit by these developments, were the trading regime and the manufacturing sector. Trade amongst the former republics collapsed due to the fall in economic output, the erection of border controls and trade barriers including export controls, and complications arising from the methods used to resolve payments as new currencies were introduced. In addition, the CIS lost the preferential access that it had with its previous east European allies, which immediately reoriented their trade towards western Europe. The loss of these "captive" markets rendered many of the CIS's low quality manufacturing goods uncompetitive and unmarketable on the world market; a market in which they were not even able to fairly compete given that they were outside the World Trade Organization (WTO) global trading system. Thus with their home markets along with those of their neighbours in a depression (far greater than the 1930s in the West) and with little access to the wider global market, the manufacturing industries in these countries simply collapsed. The fact that capital investment was particularly depressed in the CIS during this transitional recession meant that manufacturing had to absorb an even greater proportion of the

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1 The regional grouping CIS is used to refer to the 12 former members of the Soviet Union minus the three Baltic states and does not explicitly refer to the institutional arrangement of that name which is discussed in more detail in section X.

2 GDP growth and especially per capita GDP growth essentially ceased during the 1980s (Dobrinsky, Hesse, and Traeger, 2006).

3 In addition, the break up of the Soviet Union was not always peaceful, as armed conflicts occurred in several of the republics including Armenia (1991-94), Azerbaijan (1991-94), Georgia (1989-99), Moldova (1991-92), and Tajikistan (1990-99); and the war in Chechnya has continued to drain resources in Russia. Berengaut and Elborgh-Woytek (2005) shown that these conflicts are a significant explanation of the size of the output declines during the transitional recession.

4 The tasks of adjusting to these real changes were magnified by the accompanying major problems of macroeconomic stabilization such as annual inflation rates of over several hundred per cent during the early 1990s.

economic decline.[5] In addition, the overall emphasis over the last decade has been on developing services since these sectors were generally underdeveloped under central planning.

The countries of central and eastern Europe (including the four European CIS) accounted for 19.3 per cent of world value added in manufacturing in 1980; by 1990 this had fallen to 8.9 per cent and by 2001 to only 2.7 per cent (UNCTAD, 2004).[6] For all of the transition economies, manufacturing value added declined at an average annual rate of 13.5 per cent between 1990 and 1993 while GDP declined at an average rate of 8.5 per cent over the same period (UNIDO, 2006). Exports of manufactures also fell significantly during this period as Soviet exports of machinery to the former CMEA members fell from $6.3 billion in 1986 to $1.3 billion in 1991, a decline of almost 79 per cent (Crane and Tabernacki, 2003). After the breakup of the Soviet Union, total exports of the FSU fell by 72 per cent in dollar terms between 1991 and 1993; this was primarily due to the fall in trade amongst the FSU which fell 89 per cent.[7] The share of machinery exports from Russia to the non-CIS economies declined from 18 per cent of this trade in 1990 to only seven per cent in 1993 (Daviddi and Espa, 1996). Between 1993 and 1998 manufacturing value added in the transition economies continued to decline by 2.3 per cent annually while GDP declined by 1.6 per cent annually (UNIDO, 2006). Over the same period Russian manufacturing value added declined at an annual rate of 6.9 per cent while non-manufacturing GDP declined at only 3.5 per cent; similar percentage declines for some of the other CIS include Azerbaijan (13.4 and 1.6), Kazakhstan (5.8 and 3.2), Moldova (17.6 and 3.8), Tajikistan (14.0 and 7.1), and Ukraine (10.6 and 9.4).[8] Belarus provided an exception with manufacturing value added increasing annually by 1.3 per cent while non-manufacturing GDP declined by 0.5 per cent between 1993 and 1998. Bleaney at al. (2000) find that during the 1994-1997 period industry output fell on average by 35 percent in Russia and Ukraine and by 25 percent in Belarus. Popov (2006) reports that the output of machinery in Russia in January 1998 was less than 30 per cent of its level in January 1989 and argues that this decline can be explained by the relatively large fall in the relative price of output in this sector. The Russian Statistical Agency (www.gks.ru) calculates that real manufacturing output in 2005 was 67.8 per cent of its level in 1991.

The degree to which manufacturing declined during the transition is also revealed by employment in the sector. In Russia for instance, total employment in Russia in the manufacturing sector was 19,964.4 thousand in 1990 and declined every year until 1997 (when the data series was redefined) by which time it had fallen to 12,074.8 thousand; this amounted to a 39.5 per cent decline while total employment in Russia over the same period declined by only 14.2 per cent.[9] One characteristic of employment in the centrally planned economies, particularly in the manufacturing sector, was the mismatch between the labor force actually employed and the labor force ideally needed in terms of both quantity and skill mix. For example, Commander and Köllő (2004) find that during 1997-2000 unskilled blue-collar employment in Russia declined disproportionately fast compared to the employment of other skill categories as the big manufacturing firms substantially decreased the number of low-productivity supplementary unskilled jobs as a result of restructuring or privatization in order to increase efficiency.[10]

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[5] For example Grinberg (2005) finds that in 1995 capital investment in the CIS had declined to 36 per cent of its 1991 level, although GDP had declined to only 63 per cent; by 2000, capital investment was down to 34 per cent while GDP had increased to 68 per cent.

[6] In contrast, western Europe experienced only a minor decline in its share while north America experienced an increase.

[7] The size of the decline in dollar terms was exaggerated by the rouble currency depreciation (Michalopoulos, 1999).

[8] These data are from the UNIDO web site, www.unido.org. Ideally it would be desirable to know more precisely what happened to manufacturing between 1990 and 1993 but that data is not available (except for Azerbaijan) as the statistical offices of these countries only report data for total industry which approximates NACE categories C (mining) and E (utilities) in addition to D (manufacturing).

[9] Data from ILO Yearbook CD 2003.

[10] At the same time, they also find that employment of higher skilled blue collar and educated white-collar workers increased during the same period.

Just as a nascent recovery began in the middle 1990s, much of the region (except the Caucasus and a few of the central Asian CIS) was thrown back into recession by the Russian currency crisis and the accompanying worldwide decline in oil and nonferrous prices.[11] Although recovery from this crisis was rather quick, due in part to significantly depreciated currencies and increasing oil prices, overall by 2000 manufacturing output and manufactured exports were significantly below their levels prior to the transition. As shown in table 1, manufacturing as a per cent of total exports fell from an average of 59 per cent in 1988 to only 38 per cent in 2000.[12] The only country to avoid a decline in the share of manufactured exports was Belarus. In addition, the absolute decline in manufactured exports was significantly greater than these figures since for most of the CIS total trade had declined as well (Freinkman, Polyakov, and Revenco, 2004a).

TABLE 1

Manufacturing as a percentage of total exports

	1988	*2000*
Armenia	78	59
Azerbaijan	49	36
Belarus	79	83
Georgia	44	33
Kazakhstan	39	8
Kyrgyzstan	64	25
Republic of Moldova	49	35
Russian Federation	64	30
Tajikistan	64	28
Turkmenistan	58	37
Ukraine	54	36
Uzbekistan	65	50
Unweighted Average	59	38

Source: Freinkman, Polyakov, Revenco, 2004a. Note that these authors define manufacturing differently from that in this report.

After 2000 a broad-based recovery took hold in the CIS as they gradually started to create market economies. The overall economic rebound has been the strongest in the natural resource (primarily energy) rich economies of Russia and central Asia that have benefited from the post-2003 global rise in commodity prices. However, even in these countries this type of growth has its potential downside for the manufacturing sectors, since the increased global demand for commodities has re-appreciated their currencies, and this could harm manufacturing through "Dutch Disease" effects.[13] Those nations that have been truly successful in developing their manufacturing sectors and exporting manufactures such as China, South Korea, and Japan have all done so with what appeared to be "undervalued" currencies for long periods of time. Thus these appreciated currencies, if they remain at these levels for long, are likely to have a strong negative impact on the future development of manufacturing in the resource-rich CIS. Besides the strictly negative economic effects there is also the so-called "resource curse" whereby resource abundance operating through political and social channels creates waste, corruption, and authoritarianism (Kronenberg, 2004; Ahrend, 2005). These effects are likely to be especially significant in countries such as the CIS which have weak institutions to begin with (Moene and Torvik, 2006). The elites in these economies, whose income is derived largely from natural resources, have little incentive to promote economic development by improving the human capital stock or encouraging the development of the manufacturing sector.

With the enlargement of the EU in 2004, there was the potential that the CIS would be further disadvantaged by trade diversion since their former trade partners moved behind the EU tariff wall; in addition, not being WTO members they were not entitled to any compensation. However, it was argued that since the EU trade barriers were often lower than those of the accession countries, the CIS might actually gain from EU enlargement (UNECE, 2003; and Kawecka-Wyrzykowska and Rosati, 2003). However, this would not necessarily imply that they would benefit since their price advantage relative to the EU-15 would still decline. Between 2000 and 2004, the share of exports going to the new EU members declined for every CIS country except Kazakhstan and Ukraine. The declines have been particularly large for Belarus where the share fell from 18.5 per cent to 12.7 per cent, and Russia where it fell from 15.3 per cent to 8.5 per cent. There has also been a decline in the share of

[11] The price of oil fell by over 50 per cent from mid-1996 to early 1998, and the rouble lost almost 75 per cent of its value from mid-1998 to early 1999.

[12] These estimates are based upon the Soviet industrial classification system and do not fully correspond to the internationally accepted system, see Freinkman et al., 2004a.

[13] So far this does not appear to be a serious problem; this is discussed in more detail in section XI.

manufactured exports for a number of the CIS which was particularly large for Russia where the share fell from 13.1 per cent to 6.6 per cent; the share increased measurably for Ukraine from 6.5 per cent to 9.1 per cent. An additional consideration raised by Aslund and Warner (2002) was the possibility that enlargement would free up EU analytical and policy-making resources, which could then concentrate on addressing the problems of the CIS.

An additional obstacle facing manufacturing is that many of the smaller CIS have domestic markets that are too small for their enterprises to achieve the scale economies needed to compete in the world market. The central Asian CIS have the additional disadvantage of being landlocked in an undesirable geographical location. Another disadvantage faced by CIS manufacturing firms has been the relative weakness of service sector providers of complementary business services and infrastructure. The monopolistic structure of service sector providers is typical of all of the CIS countries as it is a remnant of Soviet central planning. Analyzing the obstacles faced by the Russian manufacturing firms, Broadman (2004) highlights the negative impact of bottlenecks and monopolies in the services infrastructure and argues that these suppress competition among manufacturing firms. Underdeveloped financial, legal, insurance, and business consulting services decrease the efficiency and predictability of business operations, hinder enterprise competitiveness, and limit foreign investment. Thus, the depth and pace of competitive restructuring and government reforms in the services sectors will have a significant impact on the future of manufacturing in these countries.

Overall, by the beginning of 2006 the real GDP of most of the CIS remain below that which existed in 1989. The last 15 years have therefore been quite difficult for the manufacturing industries in the CIS, which even before the transition were inefficient producers of low quality merchandise. This is quite unfortunate for these countries because in most countries the manufacturing sector tends to drive productivity growth and accounts for a significant percentage of the high wage jobs available for semi-skilled workers.[14] If the CIS are to create dynamic economies, it is difficult to see how this will be possible without a strong manufacturing sector, and the latter seems unlikely if these sectors are not competitive internationally.[15] A number of important economic problems facing the CIS, including the rise of unemployment, inequality and poverty, are directly related to the decline and restructuring in manufacturing.

The importance of trade as a factor in promoting economic development has been a highly researched topic. Much of this work has concentrated on the overall openness or the amount of trade; however more recently there has been a new emphasis on the commodity composition of that trade. It is well established in the empirical literature that certain sectors are preferable to others in that they generate socially desirable things like labor rents or technological change or linkages. Recent empirical analysis has also found that even after controlling for per capita income, the existing export structure can predict future rates of economic growth. A given country then, even after controlling for its level of development and endowments, would desire to have production in some sectors as opposed to others. One of the issues examined in this study is the degree to which the production and trade structures of manufacturing in the CIS are concentrated in these desirable sectors. The sectors in which a country has specialized need not be fixed or uniquely determined by fundamental factors. Although in a number of trade models fundamentals such as factor endowments play a significant role in determining the sectoral production and trade structure, in their multi-country and multi-good versions, these factors do not uniquely determine the production and trade vectors. Generally then, other factors, including the possibility of public policy intervention can affect which goods are actually produced and traded. Besides developing these general issues, this study looks with considerable detail at the current state of manufactures trade in the CIS. Both the geographical and sectoral

[14] Nevertheless, the importance of manufacturing should not be over emphasized as the export of natural resource products can provide significant "rents," often over 50 per cent of the export price, which can contribute significantly to government finances for infrastructure development (UNCTAD, 2005a).

[15] Of course success in exporting manufactures, even relatively high-value added, high-technology intensive goods does not guarantee economic success, especially if success is defined by human development indicators as opposed to strictly national income growth as shown by the case of Mexico (UNDP, 2005, box 4.2).

distributions of the CIS countries' trade patterns are examined. We describe trends both for the region as a whole and for the individual countries; the study highlights situations where there are significant differences in their trade patterns.

This study largely concentrates on the CIS but the evolution of trade and manufacturing in the Baltic States is of some interest since these countries were also part of the Soviet Union and have evolved relatively successfully into the European Union and the global economy. After the collapse of the Soviet Union, the Baltic States, like the CIS, experienced a significant decrease in trade and GDP; for instance, Estonian industrial production fell by 60 per cent between 1990 and 1994 (Feldmann and Sally, 2001). However, the Baltic states pursued more liberal trade and investment policies and more comprehensive and deeper domestic reforms than the CIS and did so at an earlier stage; presumably, this contributed substantially to their quicker recovery and greater integration into the world economy. Estonia, for example, pursued trade liberalization as a central part of its overall reform program and moved very quickly from being highly protected to having an exceptional level of free trade that has been compared to that of Hong-Kong; as a result its trade share with Western markets increased rapidly (Feldmann and Sally, 2001). Estonia accomplished this by pursuing a multi-tracked trade policy through bilateral agreements, accession to WTO, and compliance with the EU accession requirements. Nevertheless, between 1990 and 2004 the manufacturing sectors in these countries declined significantly (mostly between 1990-1995) both in terms of value-added and employment (Traeger, 2006).

Manufactured exports from the CIS are undoubtedly low due to the cautious attitude of multinationals in investing in the region. There are fundamental economic reasons for this hesitation but the investment climate for foreign enterprises remains somewhat uncertain due to political and institutional factors. Foreign affiliates have played a significant role in increasing the international competitiveness of the central European economies, accounting for 70 per cent of manufactured exports from the Czech Republic, Hungary, Poland and Slovakia in 2001 (Hunya, 2004).

Reintegration of the CIS into the world trading system has been delayed by the slowness of the negotiations on WTO membership for these economies. Currently four of the CIS are members of the WTO, seven are in various stages of the accession process, and only Turkmenistan has yet to apply. Kyrgyzstan was the first to join in 1998, followed by Georgia in 2000, Moldova in 2001, and Armenia in 2003. Accession to the WTO is an attractive option for the remaining CIS countries, but especially for smaller countries like Azerbaijan and Uzbekistan that need larger markets in order to reap economies of scale (Bacchetta and Drabek, 2002). It has been argued that WTO membership is now more of a necessity especially for the central Asian countries now that China has joined and Russian membership is possibly imminent (Pomfret, 2005). Many of these countries were or have been in the negotiation phase for over a decade.[16] Membership may not be far off for Kazakhstan, Russia, and Ukraine while Azerbaijan and Uzbekistan still have a way to go.

WTO membership will complicate the creation of any customs union for the region or sub-region, but by putting a number of trade practices in the CIS under more discipline could indirectly further enhance intra-CIS integration. In addition, accession to the WTO would help to add credibility to government policies, improve institutional quality and speed up domestic reforms in the CIS countries as it requires countries to liberalize their capital markets and reduce subsidies to the domestic industrial sector, particularly state owned enterprises (SOEs). China, for instance, derived significant benefits as a result of the domestic industrial policy reforms obligatory under the WTO treaty that led to the reduction of SOEs in the economy (Bajona and Chu, 2002). However, WTO membership would limit the ability of the countries to implement a more aggressive industrial policy that might be desirable as a way of dealing with numerous market failures that exist throughout the region.

The analysis of CIS trade begins in section II where the data used in the study are described and some refinements to that data unique to this study are explained. In section III the general trends in

[16] This is not necessarily unusual, especially for previously planned economies; for example, accession took China 15 years to complete.

trade are provided along with a detailed description of geographical patterns and determinants. The commodity composition of this trade is addressed in section IV with a special emphasis on the fastest growing new manufactured products in the export baskets of these countries. Section V examines the export structure of the CIS in terms of what existing exports reveal about each country's comparative advantage relative to both the other CIS and the world. In section VI the type of products exported are examined using a procedure which has never been used previously, to compare the export baskets of the CIS with those of other countries, especially those with similar per capita incomes. The quality of CIS exports is discussed in section VII while the level and type of intra-industry trade is described in section VIII. Section IX compares the export structures of each of the CIS with each other and with each of the other CIS's import structures. The trade policy of the region is outlined in section X by describing current preferential arrangements throughout the region including their future prospects, as well as these countries' progress in obtaining WTO membership; how the latter has affected the trade patterns of those that have already joined is also discussed. The final section attempts to assess the prospects for manufacturing in the CIS and what policy directions especially in regards to trade might be worth considering. The abstract provides a brief summary of some of the major findings of the study.

II. CIS trade data

It is well known that the trade statistics of the CIS are not particularly good, however for this study we have relied upon each country for data about its imports and exports as listed in the UN Comtrade database. Supposedly customs documents are routinely forged, or border controls avoided through smuggling or corruption as a way to avoid custom duties or by-pass other controls. Although small discrepancies always exist between reported exports by one country and reported imports by the receiving country, the differential for CIS trade is remarkably large. For instance, reported EU exports to Russia in 2004 were 70 per cent higher than reported Russian imports from the EU; similar magnitudes of differences are found with other trading partners as well (Bank of Finland, 2005). Reported exports from one CIS country are often significantly different from what is reported by the importing country; a more thorough analysis of this is provided by Freinkman et al. (2004). Perhaps more surprisingly, the SITC and HS databases reported by a country do not always match, even in their totals. For example, for Russian exports in 2004, the reported total in the SITC-Rev.3 database is $180,915 million while the total in the HS database is $181,634 million. Also certain HS numbers used by some of the CIS are not included in any HS-SITC concordance. With some countries it is possible to use both the SITC and HS and have a definite understanding of which goods went into which category of the other; however in working with CIS data the two databases are sometimes effectively separate and it is not completely transparent how one is related to the other.

Another characteristic of CIS trade data is the degree to which some of the trade is not reported at the more disaggregated levels of the SITC-Rev.3 and to a lesser degree in the HS series.[17] Thus for example, total Russian imports for 2004 are reported as $75.0 billion, but the sum of the 5-digit SITC imports is only $50.9 billion; thus one-third of Russian imports are not reported at this higher level of disaggregation. Appendix table 1 shows for each level of aggregation the percentage of trade that is classified under the SITC system. Generally the problem is first noticeable at the 4-digit level and then becomes substantial at the 5-digit level. The problem is less acute for manufactures than non-manufactures but is still significant. In order to partially correct for this feature of the data, an alternative data set has been created with artificial data placed in newly created SITC categories so that the sum of any given digit level of the SITC equals the reported overall total. For example, with Russian exports in 2004 the reported total exports in the SITC 3-digit category 676 is $1,451 million but the sum of the 4-digit subcategories 6761, 6762, 6763, 6764, and 6768 is equal to only $948 million. In this case a new 4-digit category is created and named 676X and given a value of $503

[17] For comparison, U.S. trade data report all imports and exports at the 10-digit HS level, and there is a concordance between the 10-digit HS and the 5-digit SITC; thus the sum of all the 5-digit SITC entries is equal to the sum of the 10-digit HS entries.

million so that the total of the six 4-digit categories will equal the 3-digit category to which they belong. With this created data, it is therefore possible to use the more disaggregated trade data for empirical analysis without the loss of significant amounts of information. To the degree that the missing data actually belongs to one of the existing categories, then this procedure is less than satisfactory (but for some uses this is still an improvement) but in cases where the entry would belong in a new category the procedure is somewhat similar to the standard practice (such as in U.S. statistics) of creating categories (usually ending in 9) that are defined as "items of one higher level of aggregation, not elsewhere specified." This procedure is performed for all levels of aggregation and for all trading partners; generally the empirical results of the analyses performed in this study are reported using both the standard data and this newly created full data set where there are significant differences.

Most of the analysis in this study does not include Uzbekistan, which does not report trade data to the United Nations, while the analysis of Tajikistan and Turkmenistan is often incomplete due to their very limited provision of data.

III. Overview of CIS trade and its geographical distribution

Total exports and imports of the CIS are given in appendix table 2.A for the years 1998-2004. These data are from the United Nations' Comtrade database when available and estimated (in italics) from other sources (such as countries balance of payments statistics) for the years 1998-2004 as reported by each country. Trade data for earlier years, especially in the early 1990s, is highly suspect with results varying by several magnitudes depending on the prices and exchange rates used to value the trade.[18] Chart 1 provides the distribution by country of total CIS exports in 2004. Russia clearly dominates the exports of the CIS accounting for almost 69 per cent of exports; Belarus, Kazakhstan, and Ukraine are also sizable exporters while the remaining eight countries account for only 6 per cent of CIS exports with none accounting for more than 2 per cent. In the lower portion of chart 1 the distribution of manufactured exports from the CIS is provided; the same four countries dominate these exports although Kazakhstan and Russia are less important with the latter accounting for slightly less than half of CIS manufactured exports.[19] Russia also dominates CIS imports but to a lesser degree accounting for slightly over half of imports in 2004. The region has a trade surplus with the rest of the world of over $100 billion due mostly to a similarly sized surplus for Russia. Although the CIS share of world exports increased by 5 per cent during the 1993-2003 period, it has actually decreased if Russia is excluded from the CIS country grouping (Broadman, 2005). Chart 2 compares the growth rate of exports of Russia, the CIS without Russia (CISwR), the new EU member states (EU-8), and south-east Europe (SEE) between 1995 to 2004. The yearly growth rate of exports for the CIS countries excluding Russia has been remarkably similar to that of Russia; both experienced negative growth after the rouble crisis and both rebounded significantly in 2000. Since 2002 exports have grown quite rapidly and at a roughly similar rate for all four of these groups of transition economies.

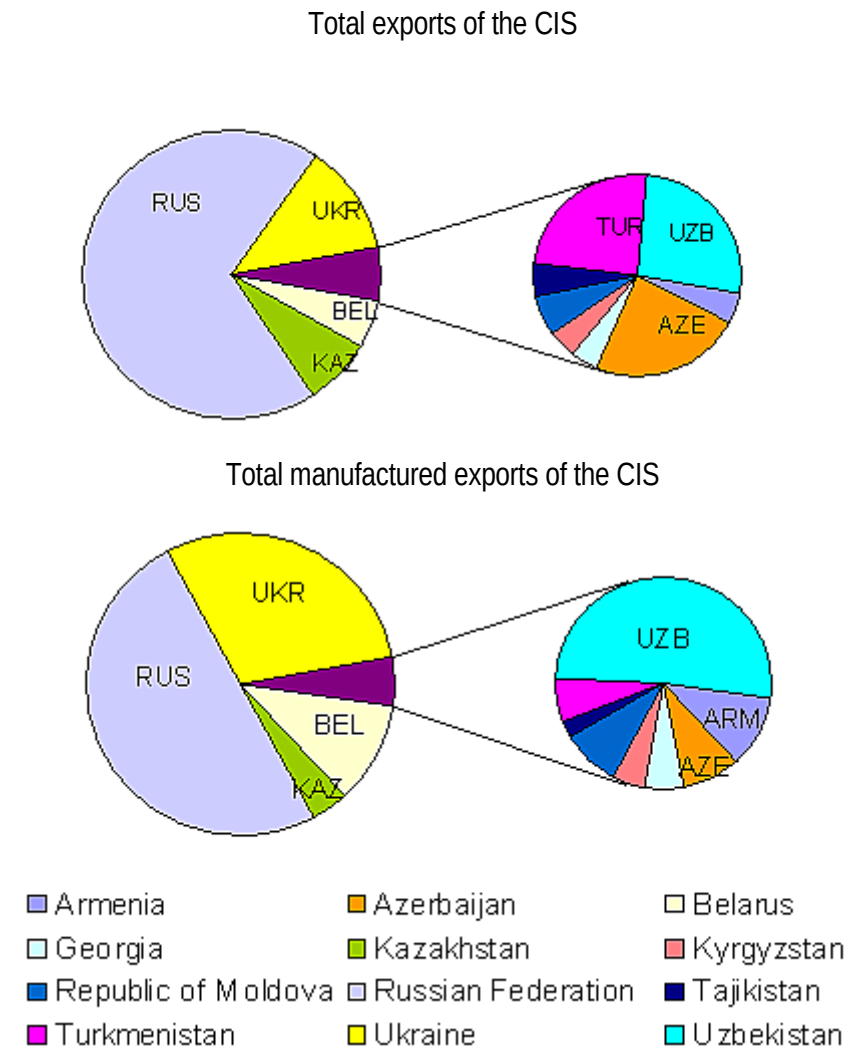
Appendix table 2.B gives import and export ratios as a per cent of GDP using combined merchandise and services trade for 1998-2004. Generally the CIS have imported more services than they have exported and thus have deficits in the services account of approximately two per cent of GDP. In the centrally planned economies, services were considered to be less productive than manufacturing and thus their development was given low priority. Although services are now among the most rapidly growing sectors in most of the CIS economies, they are still undergoing reform and deregulation and remain relatively closed to international competition compared to other sectors. The export (goods and services) to GDP ratio has been gradually going up and in 2004 was larger, sometimes substantially so, for all of the CIS (similar data for Uzbekistan is unavailable) than in 1998; the pattern is less clear for imports. Overall, the trade (exports plus imports) to GDP ratios have been

[18] See chapter 2 and especially box 2.1 in Broadman et al. (2005).

[19] Since Uzbekistan has not reported its trade to the U.N., an estimate of their manufactured exports for this chart is derived from estimates by Freinkman (2004a); but this probably overstates the amount of their manufactured exports.

CHART 1

Distribution of CIS exports by country



Source: Authors' own calculations.

increasing, which suggests a gradual increase in the openness of these economies.[20] As noted by Pomfret (2005), the central Asian states have maintained relatively high trade/GDP ratios despite the implementation of import-substitution policies. Although trade ratios vary depending on a number of economic variables, especially the size of the economy, these ratios do not stand out as being particularly large or small. For example, compared to other large economies such as Brazil or the U.S., Russia has a larger trade to GDP or export to GDP ratio and is, by this type of measure at least, fairly well integrated into the world trading system.

Prior to 1989 the CIS and the countries of east, central and southeast Europe were not significantly integrated into the rest of the global economy; they traded primarily amongst themselves within the framework of the Council for Mutual Economic Assistance (CMEA). Nevertheless even during this time there was a long-run trend of their trade being re-oriented towards the western economies. In 1970, almost 53 per cent of Soviet exports and 57 per cent of imports came from the other eastern European CMEA members; by 1988 only 28 per cent of exports and 31 per cent of

[20] Babetskii et al. (2003) concluded that the openness of the CIS had not increased between 1995 and 2002 based upon the trade (exports plus imports) to GDP-PPP ratios.

imports came from east Europe. Trade with the more developed western economies (western Europe, Canada, U.S., and Japan) accounted for more than half of the remaining trade and had grown more quickly than trade with the developing world; trade with both developed and developing countries had grown faster than trade with eastern Europe CMEA members.[21] A similar pattern existed for eastern Europe with its trade growing significantly faster with the western developed and developing countries between 1970 and 1988. During the early years of the transition CIS trade with non-CIS countries was dominated in value terms by Russia which in 1993 accounted for 84 per cent exports and 81 per cent of imports with the rest of the world; Russia, then as now, ran significant surpluses with the non-CIS countries.

It has been argued that trade amongst the different regions of the Soviet Union was excessive. For example, Michalopoulos and Tarr (1999) conclude that trade within the Soviet Union was greater than that between Canadian provinces. There would appear to be no reason why trade within a planned economy would be greater than trade in a market economy since both attempt, in theory, to essentially maximize the same thing. There could be a number of explanations including: 1) inefficient planning which seemed to incorporate an exaggerated belief in economies of scale, 2) a political objective to more widely distribute economic activities for either political reasons, strategic considerations, or economic objectives such as distributional concerns or development objectives, 3) the cheap costs of energy,[22] 4) fundamental differences in the regional distribution of factors and resources (i.e., relative to Canada), and 5) the absence of significant external trade which might create more domestic trade.

Trade amongst the CIS countries fell dramatically after the break-up of the Soviet Union and central planning. It has been estimated by some that intra-CIS trade dropped by perhaps 90 percent in the immediate years after the break-up. However, trade flows amongst the CIS during the early years of the transition are difficult to evaluate due to limited data availability and significant questions as to how they should be valued. It took time for customs services to be established and shuttle traders who often avoided customs even when they existed conducted much of the trade that did take place. Trade data were often derived from foreign exchange operations and balance of payments statistics as opposed to customs documents. During this early period, trade among the CIS members was conducted in roubles and settled using a system of correspondent accounts in the countries' central banks; complications with the payments system probably contributed significantly to the decline in trade amongst the FSU (Michalopoulos, 1999). Although the magnitude of this decline seems very large, it is actually consistent with some research on the effects of national borders. Within the U.S.-Canada FTA, Canadian provinces trade about 12 times more with each other than they do with states in the U.S. that are a similar distance away (McCallum, 1995). Thus when regions change from belonging to the same country to being a different country, if these estimates are to be believed, there is nothing unexpected about trade declining by 90 percent.[23] Thus even if the Soviet Union had been a market economy, its break-up into 15 countries would have produced a drastic decline in trade.[24] As previously discussed, since regional specialization and trade were excessive within the Soviet Union, there is all the more reason for expecting a significant reduction in intra-CIS trade. Another factor that

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[21] See *Economic Survey of Europe in 1991-92*, Appendix Tables C.4 and C.5.

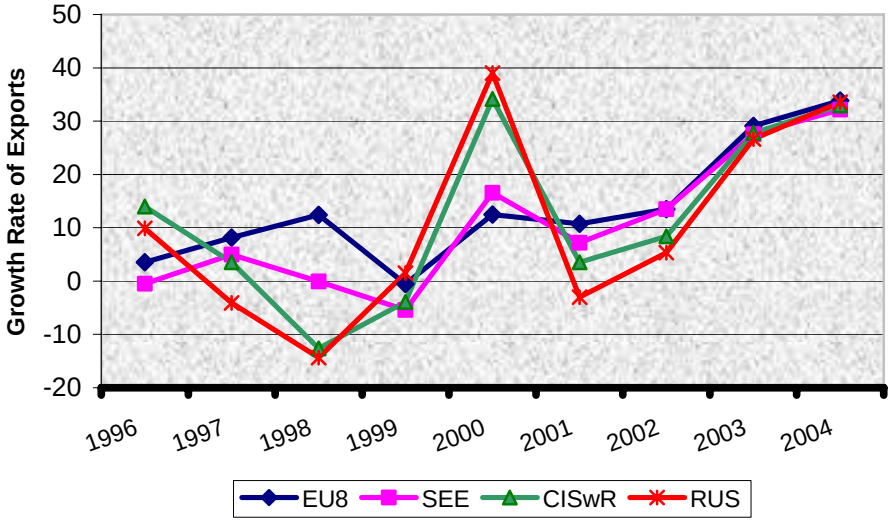
[22] The fact that energy was not priced at world levels could be interpreted to be the result of economic inefficiency; however, if limited external trade was a legitimate political objective, then energy need not be priced at world levels.

[23] Anderson and van Wincoop (2003) however argue that the border effect is much smaller, perhaps reducing trade by only 30 per cent. With this magnitude for a border effect, other factors such as the erection of tariffs and the collapse of GDP, etc. carry a more important role in explaining a trade decline of this magnitude. Alternatively, the estimated size of the trade decline may have been over estimated.

[24] The breakup of Yugoslavia also disrupted trade significantly in that region; however, the adjustment in trade between the Czech Republic and Slovakia was less disruptive for a number of reasons, and output in these two countries did not decline more during the transition than in other central European countries. Trade ties between these two countries were maintained to some degree due to the fact that they negotiated a customs union prior to their separation using the existing tariff structure; however, complications with tariff revenue distribution between the countries and other tax issues meant that border controls ultimately were needed. An additional consideration is that perhaps trade was not that intensive to begin with due to the fact that the country of Czechoslovakia was only created after the Second World War in 1948 and the two regions continued to maintain some separate administrative functions for the next 20 years (OECD, 1994).

CHART 2

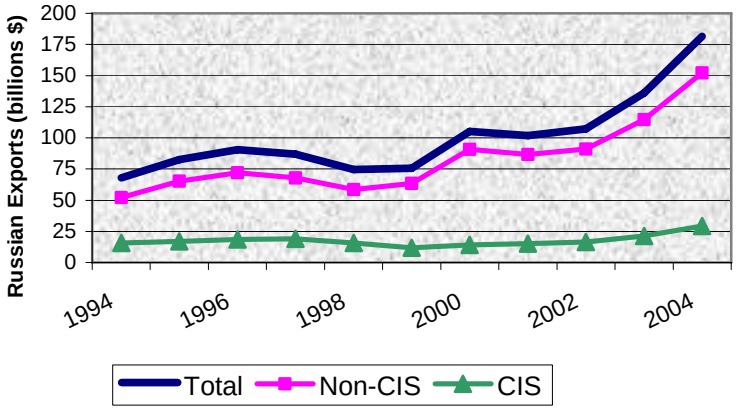
Yearly export growth of the transition economies



Source: Authors' own calculations.

CHART 3

Russian exports to the CIS and non-CIS, 1994-2004



Source: Authors' own calculations.

contributed to the large declines in trade was the fact that there was a high degree of specialization in intermediate goods that was spread throughout the CMEA region. With the breakup of that system, some firms chose to purchase their intermediate supplies from more competitive producers elsewhere in the world, thus when the supplying firm had only a few customers it lost not just a small percentage of its sales, but most of them, and with the collapse of that firm, its suppliers also collapsed. It appears that Russia ran trade surpluses with the other CIS members during the early transition.

There was a general decline in the share of trade conducted with the other CIS through much of the 1990s; at the beginning of the decade, exports to other CIS members for some of the countries have been estimated to have been as high as 90 per cent (Islamov, 2001). Between 1994 (a date after which the data become more reliable) and 2002, trade amongst the CIS was essentially flat both for exports

and imports. However, CIS exports to non-CIS countries doubled and imports were up more than 50 per cent. Thus while non-CIS countries accounted for 67.9 per cent of total CIS exports and 59.9 per cent of imports in 1994, by 2002 these had increased to 80.0 percent for exports and 66.7 per cent for imports. Beginning in 2003, however, trade amongst the CIS has literally exploded with exports up 73.1 per cent and imports up 77.9 per cent between 2002 and 2004; non-CIS trade was also up sharply but less than that recorded for CIS trade. Thus over the more recent period analyzed in appendix tables 3.1-3.11 (generally 2000-2004), there has been a reversal in the longer run trend of declining CIS trade shares as the other members of the CIS account for an increasing per cent of total imports for seven out of ten of the CIS and a decreasing per cent of total exports for six countries. These general trends are shown in chart 3 which provides Russian exports to the CIS and non-CIS countries; the changes that occurred during the 1994-2004 were largely changes in exports to the non-CIS. A similar chart (not shown) for the non-Russian CIS would show the same pattern of relatively constant CIS exports with the growth of non-CIS exports explaining the changes in total exports; the only difference would be that the CIS share would be much larger given the importance of the Russian market.

Despite the fact that the CIS have evolved towards a more normal geographical distribution for their trade, Russia remains either the top export or import partner for each of the other CIS and the top for both exports and imports for four of them.[25] Appendix tables 3.1-3.11 provide a detailed geographical breakdown of CIS trade by eight broad geographical regions including the CIS, the 8 new eastern Europe EU members, the EU-17 (EU-15 plus Malta and Cyprus), southeast Europe, NAFTA (Canada, US, and Mexico), China, other OECD (not included elsewhere), and the rest of the world. For these regional groupings the CIS is the largest export destination for seven of the CIS while the EU-17 is the largest for four. Thus the importance of the other CIS as a trade partner varies significantly and these countries can be grouped into three groups depending on the importance of the other CIS as a destination for their exports; these are: 1) relatively low importance (the CIS account for less than a quarter of exports) Armenia, Azerbaijan, Kazakhstan, Russia, and Tajikistan, 2) moderately important (the CIS account for between a quarter and a half of exports) Kyrgyzstan, Turkmenistan, and Ukraine, and 3) highly important (the CIS account for over half of exports) Belarus, Georgia, and Moldova. Similarly for imports (using the same criteria), the other CIS are of relatively low importance for Russia, moderately important for Armenia, Azerbaijan, Georgia, Kazakhstan, Moldova, and Turkmenistan and highly important for Belarus, Kyrgyzstan, Tajikistan, and Ukraine.[26] Note that for both exports and imports, the other CIS are of relatively low importance for Russia and are highly important for Belarus.

In terms of the other regional groups as sources of imports or destinations for exports, there is a diversity of experiences both in terms of levels and trends and thus overall generalizations are difficult to make. The new EU members (EU-8) account for a surprisingly low share of both imports and exports of the CIS, often accounting for only several percentage points. For Belarus and Russia, which have considerable trade with this region, the trend for exports has been significantly down. The share of exports from Belarus to the EU-8 fell from 18.5 per cent to 12.7 per cent over the 2000-2004 period while the share from Russia fell from 15.3 per cent to 8.5 per cent; however, Ukraine, which also exports extensively to this region, has maintained its share at around 11 percent. All of the CIS except Armenia have increased their share of imports from China, while China's share of exports has not increased as much or for all of the CIS. Exports to the NAFTA countries account for a relatively small share of CIS exports except for Armenia who exports almost 11 per cent of its exports to the region.

Also presented in appendix tables 3.1-3-11 is similar geographical information for trade in manufactured goods. Using the last year for which data were available, note that for each of the CIS

[25] In 2004 except 2003 for Kyrgyzstan and Turkmenistan for which reliable data for 2004 was not available. When UN comtrade data was unavailable for the latest year, trade from the IMF, *Direction of Trade Statistics Yearbook 2005* was used.

[26] For this level of geographical aggregation, more updated data (compared to appendix 3.1-11) is available from the CIS Interstate Statistical Committee (cisstat.org) and is used for this categorization, thus changing the export groups to which Tajikistan and Turkmenistan belong and the import group for Armenia.

except Turkmenistan, the other CIS account for a smaller percentage of their manufacturing imports than their total trade; and for all but three (Armenia, Moldova, and Turkmenistan) manufactured exports to the other CIS account for a greater percentage than their total exports. Thus generally, the CIS under-rely on the other CIS for their imports of manufactures but over-rely on them as a destination for their own manufactures exports.

Given the sizable declines in trade amongst the CIS and the other members of the CMEA after 1989 and the sizable increases of this region's trade with the rest of the world after that date, an issue that has received considerable attention is the degree to which the CIS are now trading at rates viewed to be "normal" by world standards. Of course simply examining the openness of the economy based upon amount of trade relative to GDP is inappropriate since it does not take into consideration a number of important factors such as the country's size or its geographic proximity to important world markets. A common procedure to determine if countries are over or under trading relative to world averages has been to estimate a gravity equation for a large sample of countries and then use the estimated coefficients of the variables to estimate the amount of trade a particular country "should" trade and then compare this to what they actually trade.

Definitive conclusions from this type of analysis are not always possible because there remain a number of empirical issues surrounding empirical estimation using the gravity framework, such as 1) which variables should be in a gravity equation as endogenous variables (for example, do price levels belong?) and whether it is appropriate to include fixed effects, 2) the specifics about how variables are calculated, such as purchasing power parity or market GDPs, and 3) whether time series and cross-sectional data should be pooled.[27] The gravity framework is also likely to overestimate how much trade the central Asian CIS "should" have. This is because it is not likely that the distance variable can accurately capture the unusual difficulty of traversing the numerous deserts and mountain ranges of this region. A thousand kilometres through the no-man's land of Afghanistan is simply not the same as a similar distance through Germany. Quantifying the distance variable is particularly problematic for a country such as Russia (the largest in the world); the general procedure has been to use the great circle distance between Moscow and the major city or capital of the other partner. However, as pointed out by Lissovolik and Lissovolik (2006), this results in Morocco being closer than China, which actually shares a long border with Russia.

Nevertheless with these limitations in mind, most gravity studies that had addressed the issue of Soviet or CIS trade until quite recently had concluded that the region under-traded with the rest of the world; exports of industrial and capital goods were particularly low (Rosati, 1992). The EBRD (2003) and Babetskii, Babetskaia-Kukharchuk and Raiser (2003) using gravity estimates from panel data covering 1997 to 2002 concluded that the CIS over-traded amongst themselves by a magnitude of several times and under-traded with the rest of the world by a similar amount. Babetskaia-Kukharchuk and Maurel (2004) found that the CIS and the EU were only trading about half of what would be expected while intra-CIS trade was many times the "normal" amount. Similar results were obtained by others such as Firdmuc and Firdmuc (2000) using 1990s data and Elborgh-Woytek (2003) using 1993-2002 data.

Lissovolik and Lissovolik (2006) concluded using a gravity framework that Russia exports "too little" to WTO members and "too much" to non-members; there was no significant trend over the period studied (1995-2002). A significant question raised in their analysis is the degree to which this bias was due to its not being a WTO member.[28] This raises a more general question about the other gravity model studies that usually have not explicitly incorporated WTO membership as part of the independent variables. If the CIS under trades primarily because they are not WTO members, then to what degree does it make sense to say they do not trade normally since one interpretation would be that they do if the proper controls had been accounted for in the gravity model used. This also raises

[27] See Anderson and van Wincoop (2003) for a broader discussion of this in regards to calculation of a border effect.

[28] The degree to which WTO membership affects trade volumes has generated considerable controversy. This broader issue is discussed in more detail in section X.

the issue that if they under trade because other countries do not extend to them normal trade relations, then does it make sense to say they do not trade normally if the "problem" is really with the other countries. Likewise there are a number of other factors such as the fact that the rail gauge is different in the CIS; if language differences are controlled for in a gravity model why not control for gauge differences? Thus what might appear to be a simple question as to whether or not the CIS trade pattern is normal, turns out to require a significant amount of qualification and interpretation as to what the question really means. Regardless of these issues concerning trade levels, most studies covering the first decade of the transition found that there appeared to be some reorientation of CIS trade from amongst themselves towards the rest of the world, but that this was occurring much more slowly for the CIS than for the other transition economies. The basic finding that the CIS were over-trading amongst themselves is to some degree perplexing (although not technically logically inconsistent) given that there was also widespread evidence of unusual difficulties with border crossings due to corruption and inefficiencies.

The most recent estimates, however, find that CIS trade is approaching world norms both in regard to their trade with the rest of the world and their trade amongst themselves. Broadman (2005) concludes that the CIS in 2003 were trading broadly in line with what would be expected whether using a gravity model to estimate bilateral flows or a model estimating total trade flows; the ratio of actual to predicted trade for the CIS as a group was 1.64 by summing the bilateral gravity estimates and a very close .96 using a total trade estimation procedure. However, there was significant variation amongst the CIS. Based upon the total trade estimation procedure, Belarus and Kyrgyzstan appear to be over-trading, Kazakhstan, Russia and Ukraine are trading as predicted, and Armenia and Georgia are under trading; Moldova, Tajikistan, and Uzbekistan are described as "outliers because of large measurement errors" (although the former two appear to be over-traders based upon the gravity estimates). An examination of the regional distribution of trade using the bilateral gravity estimates found that the CIS as a group did not significantly over-trade amongst themselves to any significant degree relative to their trade with the rest of the world or the EU-15; the CIS, however, did appear to still be over-trading with the EU-8 and south-east Europe. Freinkman et al. (2004) using gravity estimates also concluded that overall CIS trade levels are now roughly normal by world standards. Volchkova (2006) finds that the level of Russian trade with China is now normal based upon gravity estimates. However, given the range of estimates and the lack of professional consensus on exactly how a gravity equation should be formulated, it is difficult to draw any definitive conclusions.

An alternative to using gravity models to assess the degree to which regions or countries are economically integrated is to examine the degree to which prices within each area diverge from one another. Grafe, Raiser, and Sakatsume (2005) find that price variations within the central Asian CIS are smaller than "conventionally thought" with variations within countries just as large as between countries. Nevertheless some of the price differences either within or between countries are quite large. Thus they do not find that there are not significant trade costs in moving products throughout the region, but only that the border costs do not seem to be particularly significant; this conclusion is somewhat counter to the popular belief about the significance of border control costs amongst the CIS. They conclude, however, that the border of Uzbekistan seems subject to greater barriers than those of Kazakhstan or Kyrgyzstan, but even this finding may be due to how the black market exchange rate was used to compare prices.[29]

An additional issue that has been examined is how trade growth amongst the different Russian regions compares to trade growth amongst the FSU; presumably differences would be largely the result of the breakup of the Soviet Union. Employing a gravity equation on 1987-1996 trade amongst nine regions of Russia and the FSU republics, Djankov and Freund (1999) observe a significant increase in the domestic trade inside Russia after 1990 relative to trade amongst the FSU. More

[29] Alternatively, price dispersion within Russia has been observed to be high. Berkowitz and Dejong (1999) concluded that there was an "internal border" within Russia across which prices varied as much as between the U.S.-Canadian border. Gluschenko (2002) and Gluschenko (2006) also concluded that the internal Russian market was geographically segmented.

specifically, they find that the intensity of trade amongst the Russian regions and former republics was similar prior to 1990 but that trade was 60 per cent higher amongst the regions relative to trade amongst the other FSU republics during the reform period of 1994-1996. They conclude that the institution of tariffs after the breakup of the Soviet Union was the primary cause of the trade reorientation with the elasticity of trade with regard to tariffs increasing over time. Given the significance of border effects found more generally in the trade literature, the magnitude of this difference (i.e., 60 per cent) seems remarkably small.[30] In addition, they find that the legacy of a common infrastructure network and similar supply and demand chains continued to have a significant impact on trade flows within the FSU after the breakup of the Soviet Union; however, with time even the trade infrastructure begins to be reoriented towards domestic trade. For example, average train speeds within Russia increased after 1989 while speeds between Russia and the other CIS declined after that date. Thus they predict the domestic bias will likely increase to well over 60 per cent in time.

IV. Commodity composition of CIS trade

Appendix tables 4.1-4.11 provide the sectoral distribution of imports and exports by one-digit SITC-Rev.3 as a share of total imports and exports as well as the percentage growth of each sector by value over the last several years. Manufactures account for over half of the imports for each of the CIS and are close to three-quarters for Azerbaijan, Kazakhstan, and Turkmenistan. The world average for manufactures as a per cent of total imports is approximately 70 per cent; thus compared to the world, manufactures as a per cent imports seems low for a number of the CIS economies, especially Armenia, Belarus, Kyrgyzstan, Tajikistan, and Ukraine.

On a trade-weighted basis, approximately 45 per cent of CIS exports in 2004 were fuels (SITC 3), 29 per cent of CIS exports were manufactured products (SITC 5-8 minus 68), 14 per cent were agricultural and crude materials (SITC 0, 1, 2, 4, 68) and 12 per cent were not classified by kind. The world average of manufactures as a percentage of exports is 54 per cent; only Armenia (59 per cent), Belarus (60 per cent) and Ukraine (70 per cent) exceed this level, while several of the CIS export few manufactured products, including Azerbaijan with an export percentage of 9 per cent, as well as Georgia (36 per cent), Kazakhstan (15 per cent), Kyrgyzstan (26 per cent), Moldova (36 per cent), Russia (21 per cent), Tajikistan (13 per cent), and Turkmenistan (7 per cent). These percentages of manufactures exports have been relatively stable and do not appear to have been significantly reduced by the more recent increases in commodity (especially energy) prices; for instance, in 2001 Russia's percentage was 22 per cent, while Azerbaijan's was 4 per cent, Georgia's was 34 per cent, Kazakhstan's was 17 per cent, and Moldova's was 35 per cent. However, this ratio for Belarus has declined from 69 per cent in 2001 to 60 per cent in 2004. Generally manufacturing exports have been growing at about the same rate as total exports for many of the CIS; significant exceptions are Azerbaijan and Kyrgyzstan where manufactures have been growing more rapidly and Kazakhstan and Turkmenistan where they have been more slowly.

In regard to export specialization at the more detailed one-digit level of manufacturing sectors, the CIS economies are not particularly specialized in producing chemicals (SITC 5) or miscellaneous manufactured goods (SITC 8); only Belarus has more than 10 per cent of its exports in chemicals and only Armenia and Moldova have more than 10 per cent of their exports in miscellaneous manufactures. The CIS niche in manufacturing seems to be in manufactured goods (SITC 6) which account for 45 per cent of the exports of Armenia, and 18 per cent for Belarus, 9 per cent for Kazakhstan, 10 per for Kyrgyzstan, 11 per cent for Russia, 3 per cent for Tajikistan, and 41 per cent for Ukraine.[31] This sector includes textiles and apparel and footwear, items that are particularly

[30] This finding is more consistent with the Anderson and van Wincoop (2003) belief that the border effect has been grossly exaggerated; they find a border only reduces trade by 20 to 50 per cent.

[31] These figures differ from those in appendix tables 4.1-4.11 since SITC 68 has been subtracted out of SITC 6 for these calculations; this makes a substantial difference for a few CIS, especially Tajikistan as SITC 6 exports account for 57 per cent of their exports but most of this is aluminium (SITC 684).

important for Kyrgyzstan, Tajikistan, and Turkmenistan. Belarus (22 per cent) and Georgia (19 per cent) have sizable percentages of their exports in transport equipment and machines (SITC 7).

Several studies have examined the factor intensity of CIS exports by classifying SITC categories into several groups depending on the major type of input used in production. Broadman (2005) using four-digit SITC categories allocates CIS exports as being either natural resource, unskilled-labour, capital, or skilled-labour intensive; table 2 summarizes these results. Overall the CIS exports are predominately resource intensive accounting for more than two-thirds of exports, with capital-intensive and skilled-labor intensive products each accounting for around ten per cent of exports, and unskilled labour and other factors contributing about five per cent each. The natural resource intensity of exports from Belarus and Ukraine is particularly low relative to the CIS average while unskilled-labor intensive products are especially significant for Belarus, Kyrgyzstan, and Moldova. Capital-intensive goods are particularly significant for Belarus, Georgia, and Ukraine, while skilled-labour intensive goods are predominantly exported by Belarus and Russia.

TABLE 2

Factor intensity of CIS exports, 2003

	Resource	*Unskilled labour*	*Capital*	*Skilled labour*	*Other*
Armenia	89.3	0.9	3.1	3.0	3.7
Azerbaijan	93.4	0.5	4.4	1.5	0.1
Belarus	18.2	12.8	22.1	23.4	23.5
Georgia	74.9	1.3	19.1	4.4	0.2
Kazakhstan	86.0	0.3	4.8	8.8	0.1
Kyrgyzstan	65.5	15.5	11.5	6.5	0.9
Republic of Moldova	69.2	20.9	5.3	4.4	0.3
Russian Federation	66.5	1.1	10.0	8.7	13.8
Ukraine	36.0	6.0	19.2	37.6	1.1
Average	66.6	6.6	11.1	10.9	4.9

Source: Derived from data presented in Broadman et al. (2005).

In appendix 5.1-11 exports by each of the CIS are grouped into five categories based largely on production characteristics concerning factor intensity and the presence of scale economies; trends over the last four years are examined and exports to the other CIS and the rest of the world are also considered separately.[32] As previously discussed, there is considerable variation in the size of the manufacturing sectors, and within manufacturing there are significant differences in the type of manufactures exported. The manufactured exports of Belarus are distributed rather evenly across the four categories of manufactures, while somewhat surprisingly, the majority of Tajikistan's (which exports relatively few manufactures) exports are classified as high-skill, -technology, -capital intensive, with considerable labour and resource intensive exports as well. Countries that export primarily labour and resource intensive products include Armenia, Moldova, Turkmenistan and Kyrgyzstan, with the latter country also exporting a considerable percentage of medium-skill and technology goods. Azerbaijan, Georgia, Kazakhstan, and Russia export products distributed throughout the three skill categories but export few labour and resource- intensive items. Ukraine's manufactured exports are primarily low-skill and low-technology products. While for the developing countries as a whole 31 per cent of their exports in 1998 were in high-skilled products (UNCTAD, 2002), none of the CIS even come close to exporting this amount of high-skilled products.

A closer examination of the high technology exports of some of the least developed CIS members reveals that a significant proportion of these exports can best be considered as "remnants" of the Soviet industrial policy of distributing manufacturing of some critical industries to the periphery.[33] For example, 79 per cent of Tajikistan's and 66 per cent of Turkmenistan's exports of high technology manufactures are aircraft or parts of aircraft (SITC 792), primarily helicopters, most of which go to the military in the other CIS. Thus these exports do not reveal an underlying domestic capacity for

[32] These product categories are largely defined in UNCTAD (2002) and Mayer, Butkevicius, and Kadri (2002) after being adjusted for the SITC-Revision 3. One might unknowingly assume that the high-skilled products would be largely confined to the advanced economies, but this is not only the largest but also the fastest growing category for developing countries (UNCTAD, 2002).

[33] This policy could have been due to a desire to promote economic development in the more underdeveloped regions of the country or may have been motivated by a desire to move strategically important industries far behind the Ural mountain range.

innovative activity nor do they imply the regions are viewed by foreign multinationals as desirable locations for such activity based upon market-based cost considerations. Nevertheless these industries are there and provide these countries with high skilled jobs and a base from which linkages to other high skilled industries can be developed.

Although there are often sizable differences in the distribution of the different categories of exports to the other CIS compared to the rest of the world, there is only a very weak pattern. Eight of the CIS export a higher proportion of medium-skill products to other CIS countries and a higher percentage of low-skilled products to the rest of the world, but for high-skilled products as well as labour and natural resource products there is no dominant pattern. In terms of time trends, there has been a general tendency for the percentage of high-skilled and medium-skilled exports to decline and low skilled exports to increase, with no real pattern for labour and natural resource products. For exports to the non-CIS, however, all of the CIS except Kazakhstan increased their proportion of low-skilled exports and decreased their proportion of labour and resource-intensive exports. As a country further integrates into the global economy, there may be the expectation that the economy would trend to specialize in a narrower range of products more consistent with their relative global endowments of factors.[34] A study by of manufacturing specialization in the Baltic States shows that between 1990 and 2004 the sectoral distribution of manufacturing shifted from medium-high technology and low-technology industries towards medium-low technology (Traeger, 2006).[35] This trend is probably consistent with their global endowment of factors.

Appendix tables 6.1A-6.11A list the top 25 4-digit SITC categories for exports from each of the CIS; values and percentages of total trade for each item are given for several years (usually 2000, 2002, and 2004). In addition the top export destination for each product is provided along with that country's per cent of total exports of that item. The CIS country's largest export destination is given on the bottom row along with the percentage of total exports that goes to that destination. Similar information is provided for imports in appendix tables 6.1B-6.11B.

The top 25 categories of both exports and imports account for a significant proportion of CIS trade. Exports (relative to imports) are the most concentrated among the top items with the top 25 accounting for an average of 83 per cent of each country's exports; for each of the CIS the top 25 exports accounted for a larger percentage of exports than the top 25 imports of total imports. Concentration was especially large for Tajikistan and Turkmenistan where the top 25 categories accounted for over 98 per cent of their exports. Belarus, Moldova, and Ukraine had less of a concentration among the top 25 categories. The largest item accounted for over half of all exports for three of the CIS (Azerbaijan, Kazakhstan, and Tajikistan) and over a quarter for five of them. The top export item was a manufactured good for only Armenia (diamonds) and Ukraine (flat-rolled iron). The primary destination for the largest export item is another CIS country only in the case of Moldova and Turkmenistan; interestingly, China is the largest destination for Ukraine's largest export item.

CIS imports are less concentrated than exports in a few products; on average, the top 25 imported products account for 52 per cent of total imports. The largest import category accounts for over 10 per cent of total imports for six of the CIS; for eight of the CIS it comes from another CIS country and for only three countries is it a manufactured product.

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[34] Although basic trade theory would suggest that increasing openness will lead to increased domestic concentration of production, recently it has been shown that empirically there is a U-shaped relationship between per capita income and concentration of production, with diversification occurring until countries reach an income level of $9,000-$10,000, after which they begin to specialize (Imbs and Wacziarg, 2003).

[35] An exception to the shift out of low-technology industries occurred in Latvia where there was an increase, but this occurred primarily in the resource-intensive wood and furniture industries; thus this shift would also be consistent with increased specialization based upon factor endowments. Note that their experience was different from the central European economies which have experienced more of a production shift to higher skilled products.

A standard measure for quantifying the commodity concentration of trade is the Gini-Hirschmann index, which for exports from county j would be calculated, as below, where x_{jk} is exports of item k and X is total exports. [36] A similar measure for imports can be calculated as well.

$$GH\_EX_j = 100\sqrt{\sum_k (x_{jk}/X_j)^2}$$

This index varies between 0 (as the number of items approaches infinity) and 100 with larger values signifying higher levels of concentration. Calculations of this index for both CIS imports and exports for several years based upon the three-digit SITC-Rev.3 is presented in table 3. Between the beginning year (usually 2000) and the ending year (usually 2004) the commodity concentration of imports declined for 6 and increased for 4 of the CIS. Export concentration increased for every country except Armenia. Thus there has been no progress on diversifying these economies in recent years; the increase in commodity prices in the latter period would have had the effect of increasing concentration for those countries that were already large commodity exporters, so the trends probably reflect price changes more than changes in the real composition of exports. Calculations of this index (not shown) were also made at the four and five-digit level of the SITC but this did not significantly affect the values; at the four-digit level the index is only about one or two points lower and at the five-digit level about two to four points lower. The indexes of Moldova and Turkmenistan were especially sensitive to the level of aggregation. For the sake of comparison, the commodity concentration values for China are included on the last row of table 2; these values are approximately one-half those of the CIS. Compared to China and most other countries the commodity concentration of CIS exports is large (i.e., exports are concentrated).

TABLE 3

Commodity concentration of CIS trade using Gini-Hirschman Index [a]

	Imports				*Exports*			
	1998/1999	*2000*	*2002*	*2004*	*1998/1999*	*2000*	*2002*	*2004*
Armenia	..	20.9	24.3	22.3	..	37.0	46.8	35.8
Azerbaijan	..	14.8	19.0	17.5	..	62.9	70.9	65.7
Belarus	..	21.6	19.1	21.9	..	22.1	21.7	26.3
Georgia	..	18.2	18.2	16.6	..	21.6	26.0	26.4
Kazakhstan [b]	..	12.8	13.7	12.4	..	50.1	51.0	55.3
Kyrgyzstan [c]	15.7	..	18.9	20.4	43.7	..	38.8	46.7
Republic of Moldova	..	21.0	16.0	15.4	..	30.5	32.8	31.7
Russian Federation	..	35.8	10.9	14.1	..	33.1	35.1	37.5
Tajikistan	..	38.4	..	..	..	57.0	..	..
Turkmenistan [d]	14.2	14.1	..	..	43.7	55.5	..	..
Ukraine [e]	26.5	27.5	26.2	..	17.9	18.7	18.0	18.9
China		15.5	16.4	18.0		13.5	14.5	16.4

Source: Compiled from official statistics of the United Nations Comtrade database.

[a] A measure of concentration varying from 100 (highest) to 0 (lowest); these values are based upon the 3-digit SITC.

[b] Data in column 2002 are for year 2001 and data in column 2004 are for 2003.

[c] Data in column 1998/99 are for 1999 and data in column 2004 are for 2003.

[d] Data in column 1998/99 are for 1999.

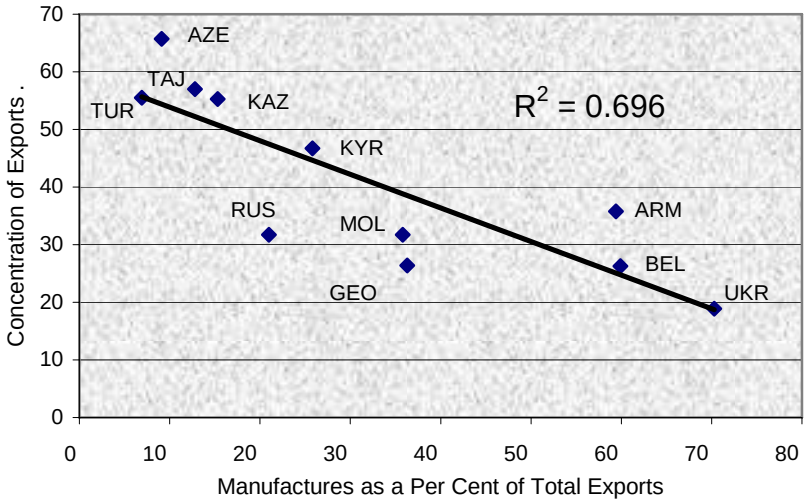
[e] Data in column 1998/99 are for 1998.

The Gini-Hirschmann concentration index of CIS exports is directly related to their product concentration in natural resource products. In chart 4 the concentration index is plotted against the

[36] The formula comes from Hirschman (1945) who used it to describe the geographical concentration of trade but it was first used as a measure of commodity concentration by Michaely (1958).

CHART 4

Relationship between the concentration index and manufactures share of trade



Source: Authors' own calculations, using data in table 3 and appendix 4.

percentage of manufactures in total exports for the CIS. There is a strong inverse relationship between these two variables with an R-squared of almost .7. To a large degree this is due to the arbitrary nature of the classification system as there is a general tendency for more extensive product breakouts for manufactured goods, nevertheless it is important to recognize this so as to interpret the concentration ratio properly. The concentration index has been shown to be inversely related to the size of an economy. Thus the high concentration indexes for the central Asian CIS are largely explainable by factors consistent with world cross-sectional analysis of the determinants of concentration. Export concentration is associated with terms of trade volatility which produces income volatility which has further been shown to have a negative effect on long-term growth (Jansen, 2004). For this reason it is viewed as desirable to diversify the export structure of the economy. The more debatable policy issue is whether this volatility imposes some form of market failure on the economy that would justify some type of industrial policy or at least some type of tax/subsidy program that would support diversification.

Appendix tables 8.1-8.10 list the manufactured goods that have been the fastest growing over the last several years (generally 2000 to 2004 when data was available). Listed are items at the 4-digit SITC level that have grown the fastest and also account for at least .1 of a per cent of total manufactures exports at the end of the period.[37] For each, the top export destination is also listed along with the percentage of exports of that item that go to that particular destination. The last row provides information on the level and growth rate of total manufactures exports as well as listing the top export destination. For all of the countries, at least one but often times many (21 for Kyrgyzstan) of the top 25 fastest growing manufactured exports were not even exported at the beginning of the period. Given the data problem that not all commodities are allocated to a 4-digit SITC category, in a very few cases the "increase" from zero may be due to the fact that that item was simply not properly categorized in the earlier year; however generally this problem does not appear to be significant and the new items do appear to be actually newly exported items (or at least items for which exports have increased extremely rapidly). For example a detailed analysis of Kyrgyzstan's 21 fast growing new items for which there were no exports in 1999 shows only 7 of these had any unallocated exports at the 4-digit level (which in the data set would have appeared as category yyyX). More importantly, where there

[37] For Kyrgyzstan the criterion was set at .2 per cent because there were more than 25 new items satisfying the .1 per cent requirement.

was an unallocated amount in the beginning period, the amount was generally quite small, so that even if all of the unallocated were assumed to belong to the new fast growing category, the growth rate of this item would still have been over 1,000 per cent for three of the items, and between a 100 and 1,000 per cent for two others. Thus for only two of the items is it even theoretically possible that the reported rapid growth was simply due to the fact that the item was not properly allocated in the beginning time period.

These fast growing export items account for between 12 and 64 per cent of total manufacturing exports of the respective countries. The total of the top 25 items has grown over 10,000 per cent for two countries (Kyrgyzstan and Moldova), over 1,000 per cent for four others and over 200 per cent for the others.[38] These would represent the dynamic manufacturing sectors of growth for these countries since they represent growth rates far in excess of manufactures more generally. Taken collectively, it is a fairly diverse group of products; other than the numerous apparel items, the other products are primarily intermediate (such as steel products) and capital goods. A number of products appear for several countries, but since they are rather specifically defined there are not a lot of overlaps. Of the 25 products listed for the 10 CIS countries in appendix 8.1-8.10, 138 are listed for only one country, 40 for two, 8 for three, and only 2 products are listed for four of the CIS. Thus in these fast growing export sectors, the CIS countries appear to be increasing their specializations in different products; however, this is not to say that other CIS have not already achieved competitiveness in these products (where their exports are large but not growing rapidly). The few areas of overlap are primarily in exports of inorganic metal compounds, glass products, iron and steel products, metal products (structures, tools, and cutlery), transport equipment (railway, aircraft, and ships), and apparel.

V. The revealed comparative advantage of the CIS

A useful approach to summarizing the sectors in which the CIS have demonstrated an existing comparative advantage in exporting is to examine how successful they are at exporting a particular product relative to the world average. Balassa (1965) provided a measure for this purpose referred to as the index of revealed comparative advantage; this index for country *j* in product *k* is calculated as:

$$RCA_{jk} = \left(x_{jk} / X_j\right) \Big/ \left(\sum_j x_{jk} \Big/ \sum_j X_j\right)$$

where x_{jk} represents the exports of product *k* by country *j*, and X_j is total exports of country *j*. This index is greater than one for those goods whose share of total exports for a country is greater than the world average.[39] It should be noted that although a value of one is a useful reference level, a value lower than one does not necessarily imply that a country does not have a comparative advantage in producing that product.

Table 4 provides calculations of RCA indexes for each of the CIS (except Uzbekistan) for each 1-digit SITC-Rev.3 category; also provided are summary measures for the overall CIS in the form of weighted and unweighted averages. Note that because of the relative large size of Russia, which accounts for over 70 per cent of CIS exports, any trade-weighted average is dominated by Russia. As was also obvious from the commodity analysis of the previous section, the CIS revealed comparative advantage is clearly in fuels and lubricants (SITC 3). All of the CIS have an RCA of greater than one in this sector except for Armenia, Georgia, and Moldova. The unweighted average RCA is also quite large for beverages and tobacco (SITC 1) but this is due to extremely high values for Moldova (wine and tobacco) and Georgia (non-alcoholic beverages and wine) while six of the CIS actually have values below one. The relative insignificance of manufactured exports is demonstrated by the fact that

[38] The increase for Turkmenistan was 198 per cent but that was for only one year.

[39] Similarly, the index can be considered as a country's share of world exports of a particular product divided by that country's share of total world exports. Sometimes this index is multiplied by 100.

TABLE 4

Revealed comparative advantage for each country by 1-digit SITC

Exporter country	SITC 0 Food & animals	1 Beverages & tobacco	2 Crude materials	3 Fuels & lubricants	4 Animal veg. oils	5 Chemicals	6 Manufactured goods	7 Machines & transport	8 Misc. mfng.	9 Not classified
Armenia	0.52	9.81	4.21	0.35	0.02	0.03	3.51	0.08	0.88	2.07
Azerbaijan	0.49	0.52	0.80	10.48	2.67	0.23	0.21	0.11	0.03	0.16
Belarus	1.41	0.73	1.16	3.43	0.37	0.97	1.24	0.54	0.73	0.28
Georgia	2.79	17.93	8.11	0.45	0.26	0.61	0.66	0.46	0.10	0.98
Kazakhstan	0.70	0.17	1.89	8.25	0.13	0.22	1.23	0.08	0.02	0.32
Kyrgyzstan	1.61	2.56	3.34	1.44	0.02	0.27	0.74	0.17	0.48	13.55
Republic of Moldova	3.23	33.00	3.65	0.20	9.89	0.09	0.47	0.15	1.77	0.00
Russian Federation	0.21	0.16	1.49	6.39	0.14	0.39	1.12	0.12	0.09	5.72
Tajikistan	0.59	0.96	3.87	1.70	0.00	0.12	3.85	0.19	0.07	1.21
Turkmenistan	0.03	0.01	3.18	10.32	0.24	0.04	0.29	0.02	0.13	0.51
Ukraine	1.37	1.04	2.13	1.33	3.95	0.78	2.87	0.38	0.42	0.37
Unweighted average	1.18	6.08	3.08	4.03	1.61	0.34	1.47	0.21	0.43	2.29
Weighted average	0.48	0.52	1.63	5.75	0.71	0.45	1.34	0.17	0.17	4.17

Source: Compiled from official statistics of the United Nations Comtrade database.

Note: Trade data are for 2004 except Tajikistan and Turkmenistan, for 2000.

the RCA is significantly below one in three of the four manufacturing sectors (chemicals, machines and transport equipment, and miscellaneous manufactures). Not only are the averages below one, but all the individual country values are below one in each of these three sectors with the exception of Moldova for miscellaneous manufactures. Several of the CIS demonstrate some revealed comparative advantage in some of the manufactured goods sector (SITC 6), including Armenia (polishing diamonds), Belarus (wires, paper, textiles, leather, wood products, and steel), Kazakhstan (metals and leather), Russia (metals and wood products), Tajikistan (metals, textiles), and Ukraine (steel). The lack of any real comparative advantage in miscellaneous manufactures (SITC 8) is noteworthy since that sector includes apparel which for many other developing countries proved to be the initial industry in which they were able to become globally competitive.[40] A much more detailed listing of the specific industries in which these countries have a revealed comparative advantage is provided in appendix tables 9.1-11. These tables list the products with the highest RCA indexes at the two-digit level (top 15), three-digit level (top 25), and the four-digit level (top 25).[41] For each of these goods, an RCA index is also calculated , which provides their comparative advantage within the CIS (as opposed to the regular RCA based upon world trade).[42] Generally these CIS estimates of RCA are larger than the world RCA indexes for many of the listed items; as will be developed in section IX this finding implies that each country tends to specialize in a different set of products and thus there is limited competition amongst the CIS for a given product. These tables also provide data concerning each item's per cent of the country's total exports, and the item's per cent of aggregated CIS exports and world exports of this product.

Table 5 provides some additional summary information on the number of sectors for each country in which they have a RCA index greater than one and the number of these that are in the manufacturing sectors; this is done at the three, four and five digit levels. On average each of the CIS has a RCA index greater than one in 39 of 260 (15 per cent) three-digit industries, 105 of 1032 (10 per cent) four-digit industries, and 255 of 3538 (7 per cent) of five-digit industries. Of these industries in which they have a revealed comparative advantage, approximately one-half (two-thirds of the five-

[40] Apparel is a first step industry because it is a relatively technologically unsophisticated labor-intensive industry which requires only simple capital equipment and does not require significant scale economies in order to be efficient. Apparel (SITC 84) is a top-15 two-digit industry (in Appendix 9.1-11) with an RCA greater than one for only Armenia and Moldova; although also listed for Tajikistan and Turkmenistan it has an RCA of less than one in these economies.

[41] The artificially created sectors (ending in X) have been deleted from these lists since any revealed comparative advantage in them would simply be the result of these countries' tendency towards inadequate classification.

[42] The denominator of the RCA equation thus uses total CIS trade instead of total world trade.

TABLE 5

Number of SITC sectors in which a country has a revealed comparative advantage

Exporter country	3-digit (260 sectors) RCA>1	3-digit (260 sectors) Manufacture RCA>1	4-digit (1032 sectors) RCA>1	4-digit (1032 sectors) Manufacture RCA>1	5-digit (3538 sectors) RCA>1	5-digit (3538 sectors) Manufacture RCA>1
Armenia	34	16	87	48	180	124
Azerbaijan	21	5	46	13	84	37
Belarus	71	46	209	139	465	349
Georgia	36	14	95	48	200	119
Kazakhstan	37	10	72	26	425	299
Kyrgyzstan	39	15	118	55	223	120
Republic of Moldova	48	21	142	78	266	163
Russian Federation	37	14	100	58	287	197
Tajikistan	20	8	46	17	156	106
Turkmenistan	16	4	41	17	69	30
Ukraine	73	32	198	119	453	317
Average	39	17	105	56	255	169

Source: Compiled from official statistics of the United Nations Comtrade database.

Note: Trade data for 2004 except Tajikistan and Turkmenistan, for 2000.

digit) are manufactures; thus overall, on average, manufacturing industries that have a comparative advantage account for approximately five per cent of total sectors. Belarus and Ukraine stand out as having significantly more industries with an RCA of greater than one; this is the case for total trade as well as manufactures. This primarily reflects the diversity of these economies and does not really imply that they are any more "internationally competitive" than the other CIS. The RCA concept is much like the concept of comparative advantage generally, that being that it is a relative measure where every economy has an advantage, as a logical necessity, in some sector.

VI. The income level of CIS trade

In order to evaluate the commodity structure of CIS trade flows, a summary measure is required that can provide some assessment of the type of products traded and how they compare to other countries especially those at a similar level of development. For this purpose Michaely's (1984) "income level of exports" which has recently been resurrected by Hausmann, Hwang, and Rodrik (2005) and Rodrik (2006) is employed.[43] Essentially for each item, the "average" per capita income level of those exporting the product is calculated and then the "income level" of a given country's export basket can be calculated by multiplying this value by the weighted amount of each product in the export basket. This value provides not only a useful summary measure of the type of products exported by a given country, but Hausmann, Hwang, and Rodrik (2005) find that the value of this measure relative to a country's per capita income has historically been associated with that country's subsequent growth rate. Rodrik (2006) uses this measure to validate the common perception that China exports relatively high technology goods and provides both empirical and theoretical reasons why this has contributed to high Chinese growth.[44] Lall, Weiss and Zhang (2005) use similar logic but a different technique in deriving their measure of product "sophistication."

More specifically, for each commodity, defined at the 6-digit level of the Harmonized System, the "average" per capita income level of those exporting the product is calculated. If x_{jk} represents the value of exports of country j of good k, and X_j represents total exports of country j,

[43] The general idea of classifying goods by the per capita income level of their exporters goes even further back, such as in Hirsch (1977).

[44] Schott (2005) comes to the same conclusion by showing that the export basket of China is more similar to that of OECD countries based upon an export similarity index using the Finger-Kreinin (1979) procedure.

and Y_j represents the per capita income of country j, then the "income level" of product k is equal to:

$$PRODY_k = \sum_j \frac{x_{jk}/X_j}{\sum_j (x_{jk}/X_j)} Y_j$$

With a value for PRODY for each 6-digit HS item, an "income level of exports" for a country can be calculated as:

$$EXPY_j = \sum_k \frac{x_{jk}}{X_j} PRODY_k$$

Note that the formulation by Hausmann, Hwang, and Rodrik (2005) for PRODY is different from a simple trade weighed measure as first proposed by Michaely whose measure would be equivalent to:

$$MICHY_k = \sum_j \frac{x_{jk}}{\sum_j x_{jk}} Y_j$$ [45]

Hausmann et al. argue that their measure is better because Michaely's overweighs large countries; however it is less clear that this is really a problem. The PRODY formulation has what would appear to be an undesirable property in that how countries are formulated affects the result. For instance, if a given country is divided in half and even through both export the item to the same intensity and have the same per capita income, the PRODY measure would change; this would not be the case with the MICHY measure. Intuitively the MICHY variable has the desirable feature that the EXPY variable remains more closely linked to the actual per capita incomes of the countries involved; however, neither variable has the property that the typical country (trade weighted average) with a given per capita income would have an EXPY of the same value.[46] Essentially the question is whether a product that is primarily exported by rich countries, although only being a small part of their total exports, yet makes up a significant percentage of a large number of poor country exports, should be classified as a rich country or poor country product. The MICHY measure would result in this being a rich country good while the PRODY measure would result in this being a poor country good. There would appear to be no overwhelming theoretical reason to support one over the other; the choice would thus appear to be an empirical matter which would depend on which measure would be more highly correlated with other variables of significant interests.

Hausmann et al. (2005) has shown that their EXPY measure is a "strong and robust predictor of subsequent economic growth" for the 1994-2003 period. This raises the obvious question as to whether Michaely's calculations of MICHY made using 1973 trade data are correlated with the subsequent

[45] Technically, the Y_j term used by Michaely was not the actual level of per capita income but a scaled level relative to that of the United States, the country with the highest per capita income in his sample; as a result the MICHY variable was thus scaled to vary between zero and a hundred.

[46] As pointed out by Michaely, this is most easily understood by looking at either the richest or poorest country. Since these countries will export products which are also exported by other countries with less extreme per capita incomes, their calculated EXPY must be less extreme than their actual per capita incomes. Thus the distribution of EXPY values will have a smaller variance than the distribution of per capita incomes.

growth of that sample of countries. Of the 108 countries used in that analysis, data on their economic growth over the next 5 (1973-78) and 10 (1973-83) years was available for 87 countries in the Penn World Tables (2002). A simple regression, as well as one controlling for initial income levels (as in Hausmann et al.) to allow for "catch-up" effects, failed to find any significant relation between MICHY and later growth. Nevertheless, Michaely in a separate table provided a smaller list of those exporting "above" their income and another group exporting "below" their income defined as those at least one standard deviation from the regression line. The growth rate of real constant dollar per capita income (chain weighted basis) of those exporting "above" their income was 79 per cent more over the next five years than the "below" income group, and 19 per cent more over the ten years from 1973 to 1983.[47] Thus although the regression fails to find a robust effect for the entire sample, using only those at the extremes of the sample suggests the possibility that the income level of exports may have some effect and raises the possibility that in a more fully specified growth equation this factor might be statistically significant.

However, since the Hausmann et al. formulation definitely has a demonstrated growth effect and since that paper along with Rodrik's analysis provides additional empirical evidence that would be complementary to that performed here, the PRODY measure is used for this analysis; but a further examination of this issue is probably justified.[48] This variable is calculated for over 5,000 HS items for each year using both a market exchange rate and a purchasing power parity (PPP) exchange rate. The PRODY variables used in this study are the means for the 3 years 1999, 2000, and 2001. Thus although different years of trade data are examined and the EXPY can vary from year to year based upon the changing export basket, the PRODY variable remains fixed regardless of the year analyzed.

In chart 5 the natural log of the EXPY (using 2001 trade data)[49] based upon the PRODY-PPP is plotted against the log of per capita income (PPP). The red dotted line represents the world regression (as obtained from Rodrik) and the black triangles give the values of the CIS along with the three Baltic states; the solid blue line gives the regression of these FSU economies.[50] For every country, except Kazakhstan, the FSU economies export a commodity basket typical of countries with a higher per capita income than their own. This is especially the case for Armenia, Belarus, Estonia, Moldova, and Ukraine which have values higher than the typical FSU after adjusting for per capita income. Overall this differential between the FSU and the world is larger for the poorer economies (as shown in the chart by the wider separation between the two lines at lower values of per capita income). A measure of this differential is presented in the last column of table 6, as defined as the per capita income of the typical country from the world sample that has an export basket similar to a given FSU country divided by that FSU country's own per capita income. (This is shown on the chart as the horizontal distance between each FSU observation and the dotted (red) line.) Since all the data points lie to the left of the estimated world regression line except for Kazakhstan, all have values over 100. The value of 126.8 for Russia is interpreted to mean that Russia has an export basket that is typical of countries with a per capita income of 26.8 per cent more than that of Russia. Azerbaijan, Belarus, Georgia, Kyrgyzstan, and Turkmenistan are like Russia in having an export basket typical of countries with moderately higher per capita incomes. However, Moldova and Ukraine have baskets expected of countries with over twice their income and Armenia has one typical of a country with over three and a half times its income. Also included in the table and chart is information for China; it has been argued by Rodrik (2006) that an important component of Chinese economic success has been its ability to export items typically exported by much richer countries. A similar conclusion is drawn by Schott (2005) who finds that China's export basket is more similar to that of OECD economies than countries

[47] Those countries that had MICHY values at least one standard deviation from the regression estimate were almost entirely developing countries. If the sample used for the regression is restricted to those 49 developing countries with per capita incomes of less than 10 per cent of the U.S. level, then the MICHY variable is significant at the 10 per cent level (in a multiple regression with initial per capita income also included).

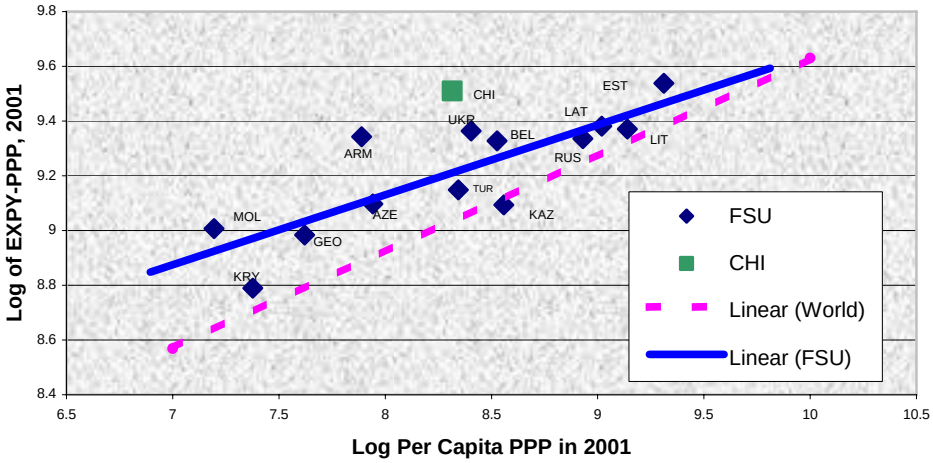
[48] Another major consideration is that Rodrik graciously agreed to share his PRODY data for use in this study; see Rodrik (2006) for additional information about how this variable was calculated.

[49] Trade data for Armenia and Turkmenistan cover 2000.

[50] Data for Tajikistan and Uzbekistan was not available in the disaggregated form needed for this analysis.

CHART 5

Income (log) level of exports



Source: Authors' own calculations.

TABLE 6

Income level of CIS exports: levels and comparison to the world

Exporter country	*Per capita income in PPP dollars for 2001*	*EXP-PPP for 2001 exports*	*Per capita income of typical economy with similar export structure*	*Ratio of per capita income of typical economy to this CIS economy*
Armenia	2 669.2	11 737.4	9 786.1	366.6
Azerbaijan	2 810.4	13 879.2	4 889.5	174.0
Belarus	5 042.9	11 865.1	9 374.8	185.9
Estonia	11 063.5	11 416.4	16 992.5	153.6
Georgia	2 040.3	8 930.0	3 543.3	173.7
Kazakhstan	5 206.1	11 244.2	4 838.7	92.9
Kyrgyzstan	1 598.7	7 967.9	2 052.3	128.4
Latvia	8 255.8	8 897.1	10 912.0	132.2
Lithuania	9 312.9	6 567.3	10 583.5	113.6
Republic of Moldova	1 331.9	8 161.8	3 792.3	284.7
Russian Federation	7 559.3	11 332.7	9 584.8	126.8
Turkmenistan	4 202.5	9 397.5	5 647.6	134.4
Ukraine	4 466.0	11 658.2	10 383.0	232.5
China	4 089.3	13 497.1	15 703.9	384.0

Source: Authors' own calculations.

Note: Estimates for column three (per capita income of typical economy) derived from regressions by Hausmann, Hwang, and Rodrik (2005).

with similar relative endowments as China. Although none of the FSU are able to do this to the degree that China is, Armenia and to a lesser extent Moldova and Ukraine have this characteristic as well.

To some degree these results may be surprising in that the FSU economies are not typically described as producing technologically sophisticated products. However, the Soviet Union did have rather advanced technological capabilities in a number of sectors. In addition, the GDP in the CIS fell to only about 60 per cent of its 1989 level from 1994 to 2000 during the "transition recession" and remains in 2006 below 75 per cent in a number of the economies. In fact, some of the economies which stand out as exporting relatively high-income products based upon the previous analysis are the very ones where the income declines have been the greatest. For example, in 2001 the year used above, GDP in Georgia was 33 percent of its 1989 level, while Moldova's was 34 per cent and

Ukraine's was 46 per cent; these compare to the CIS average of 66 per cent.[51] Thus it would appear that these countries' current export structures are still significantly a remnant of their past income levels; using their 1989 per incomes would place them much closer to the world regression line. One significant exception to this pattern is that of Armenia; in 2001 its GDP was 70 per cent of its 1989 level, and this relatively moderate fall (by CIS standards) cannot explain much of its unusually high EXPY value.

Several interpretations, not necessarily exclusive, could be applied to these findings. It is possible to argue that current income levels are a temporary deviation from their long-run, steady-state level, since per capita income in many of the CIS are only about 80 per cent of their 1989 level. Given some additional time to adjust, their income levels are likely to naturally bounce back to their longer-term levels. In effect, the production structure is normal, and it is the per capita income data that is "misleading." Although this may explain the EXPY values for several of the CIS (e.g., Russia or Kyrgyzstan) whose ratios are not particularly high relative to their per capita income, it is not a plausible explanation for many of the CIS (especially, Armenia, Moldova, or Ukraine) with relatively high EXPY values. Another interpretation is that these data show how slow the process of industrial restructuring is proceeding in a number of these economies, and how inappropriate the current economic structure is to current realities. As previously discussed, the location of a number of high technology plants in some of the poorer CIS is a legacy effect from the Soviet Union's policy of dispersing strategic industries. Alternatively, it can be argued that regardless of the cause, the current high-income basket of exports is a national "asset" which is likely to lead to future economic growth, and the country may even wish to further promote this observed deviation from world trends much in the spirit of Rodrik (2006) and Hausmann et al. (2005).

Although the observation that the CIS export relatively sophisticated products would appear somewhat inconsistent with the view that the CIS exports poor quality products (as developed in the next section) it is not inconsistent with the general view that the CIS has relatively high levels of human capital and scientific knowledge. UNCTAD (2005b) has recently created an "innovation capability index" based upon a number of factors including R&D manpower, patents, scientific publications, literacy rates, and secondary and tertiary school enrolments. The CIS countries (as well as those of eastern Europe) score remarkably high on this index, having indexes typical (based upon a world regression) of countries with per capita incomes several times their own. It is therefore quite possible that the presence of this skill and technological base is an important factor explaining their commodity export structure.

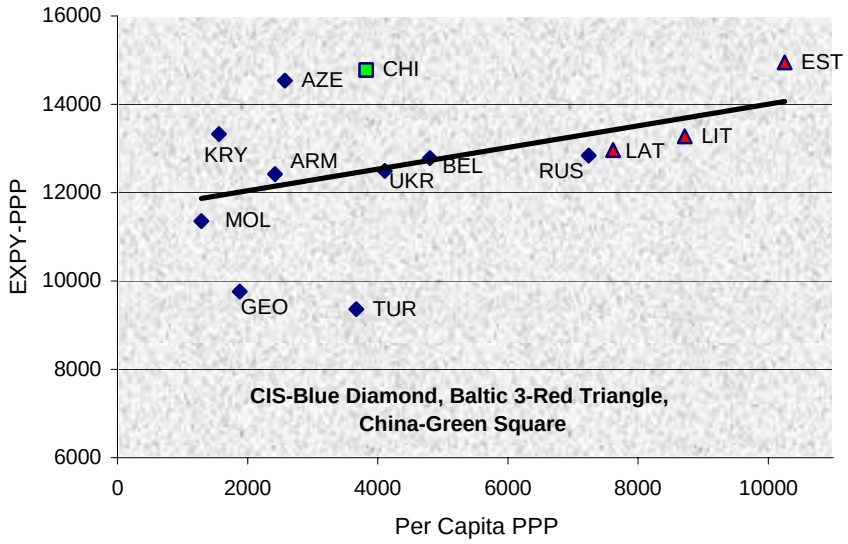
Since many developing countries' exports are concentrated in natural resource products and these products also account for a significant percentage of CIS exports, the question arises as to what degree this factor dominates the calculation of the EXPY. In chart 6 a similar calculation is performed using only manufactured exports in 2004; the values are presented using nominal PPP dollars for both axes instead of logs in order to make the presentation of the data more conceptually useful.[52] For all of the FSU economies, the EXPY measure using only manufactures is higher than for total trade; the average for the FSU increases by 23 per cent. The increase is less than 10 per cent for Estonia, Latvia, Turkmenistan, and Ukraine and significant for the rest with Kyrgyzstan having the largest increase of 81 per cent followed by Azerbaijan's 71 per cent increase. Also notable is the fact that China's manufacturing EXPY value increases by only 2 per cent, due in large part to the fact that manufactured exports account for almost 93 per cent of China's exports. This demonstrates to a significant degree that the large value of EXPY for China is due to the fact that they do not export non-manufactures; China's value although still relatively high in chart 6 nevertheless does not stand out as being as exceptional as it does in chart 5. One implication of this might be that the positive association found between the EXPY measure (after controlling for per capita income) and subsequent growth may be

[51] *Economic Survey of Europe 2004 No. 2*, UNECE (Geneva), Appendix Table B.1.

[52] Manufactures are defined as the HS items belonging to SITC-Revision3 categories 5, 6 (minus 68), 7, and 8. The trade data are for 2004 except 2001 for Kazakhstan and 2002 for Ukraine.

CHART 6

Income level of manufactured exports



Source: Authors' own calculations.

the result of the fact that those with high EXPY have large manufacturing sectors, and it is the latter that is the significant factor in promoting growth.

Table 7 explores the relationship between the level of EXPY for manufactures and the different geographical destinations of CIS exports. The CIS countries export a basket weighted with more sophisticated products (i.e., higher EXPY) to the other CIS than to the other regions of the world. For each of the CIS countries for which there was data except Kyrgyzstan, the EXPY value of exports to the other CIS was considerably larger than the value for exports to the non-CIS. The weighted average EXPY for exports to the other CIS is 18.8 per cent higher than their average to the non-CIS. It is also the case that if any country in the CIS exports an item, it most probably exports that item to at least one of the other CIS, and either that CIS country or another exports that item to a country outside the CIS. Of the 3,661 different manufactured items (defined at the 6-digit HS level) exported by the CIS, only 255 or 7 per cent are exported exclusively to a region outside the CIS and only 119 or 3 per cent are exported exclusively to within the CIS. Essentially then, the CIS export to the rest of the world the same basket of manufactured items as they export among themselves; however, the relative amounts of each item differ and thus the different estimates of EXPY. There is a less obvious pattern for CIS exports amongst the subregions of the non-CIS; the unweighted and weighted averages suggest a somewhat different pattern. The unweighted average is relatively similar for the different subregions while the weighted average has a moderately high value for the EU8, less for southeast Europe, the EU, China, and the rest of the world (mostly developing countries), and the lowest values for NAFTA and the remaining OECD.

The calculated values for manufactures EXPY have generally displayed no dominant pattern over the last several years. For the eight CIS for which there is information, the values for four countries increased (Azerbaijan, Belarus, Moldova, and Ukraine) and the values for four decreased (Armenia, Georgia, Kyrgyzstan, and Russia).[53] The same variation is evident in a more detailed examination of the trends in the two largest economies (Russia and Ukraine) looking at their trends by both geographical coverage and for a longer period of time.

[53] Comparing the change between 2001 and 2004, except 2000-2004 for Armenia, and 1999-2002 for Ukraine.

TABLE 7

EXPY-PPP for manufactures exports by region of destination, 2004

Exporter country	Total	CIS	Non-CIS	Non-CIS						
				EU-8	SEE	China	EU	NAFTA	ROECD	ROW
Armenia	12,422	13,888	12,297	12,716	12,694	14,267	12,505	11,411	11,147	12,399
Azerbaijan	14,533	15,564	12,942	12,732	13,053	12,372	13,159	19,313	14,444	11,221
Belarus	12,783	13,762	10,812	11,637	10,856	8,965	12,342	9,708	9,980	9,165
Georgia	9,764	10,610	8,189	6,339	8,262	11,809	8,908	4,890	8,474	13,821
Kazakhstan	11,773	13,738	10,946	12,314	13,903	10,622	13,178	19,372	7,603	11,031
Kyrgyzstan	13,324	12,824	15,326	12,487	11,790	14,473	15,120	17,899	14,291	13,830
Republic of Moldova	11,355	13,527	10,592	13,203	10,362	15,503	10,666	9,096	11,342	13,686
Russian Federation	12,840	14,873	12,290	13,301	11,078	13,192	12,671	10,673	11,329	12,284
Turkmenistan	9,366	10,606	8,960	7,321	8,768	11,079	8,706	12,226	16,188	8,602
Ukraine	12,494	14,280	11,905	14,284	14,437	10,436	11,754	11,039	10,236	10,576
Unweighted Average	12,065	13,367	11,426	11,633	11,520	12,272	11,901	12,563	11,503	11,662
Weighted Average	12,717	14,340	12,066	13,265	12,200	12,440	12,465	10,796	10,716	11,679
Memorandum Item:										
Number of items exported	3,661	3,406	3,542	2,611	1,698	1,145	2,570	1,471	1,155	3,280

Source: Compiled from official statistics of the United Nations Comtrade database.

Note: Trade data for Turkmenistan is for 2000, Kazakhstan for 2001. Number of items exported by all of the CIS as defined at the 6-digit level of the HS classification system.

Although the EXPY calculations remain relatively stable over the several years examined, it is of interest whether the changes are significantly related to the introduction of new products or deletion of old products from each country's export basket. Appendix table 10 provides this information based upon 6-digit HS manufacturing items. For some of the CIS the introduction of new products and to a lesser extent the elimination of old products are quite large given that the time period examined was only a few years. For example, Armenia exported only 765 manufactured items in 2000 but added 539 new ones by 2004; during the same time, 294 items (over a third) of the original items were no longer exported by 2004. Thus less than one-half of the manufactured items exported in 2004 were exported in 2000. Despite this rapid turnover in the products traded by number of items, the value of these new products was a reasonably modest 8.8 per cent of manufactures by value; the value of the eliminated items had accounted for 7.9 per cent of manufactured exports in 2000. A relatively similar pattern existed for Azerbaijan, Georgia, Kyrgyzstan, and Moldova. One important difference for Azerbaijan, however, was that the new items which were not even exported in 2000 accounted for over half (51.2 per cent) of its exports in 2004; Azerbaijan's eliminated items also represented a fairly large 10.2 per cent of its 2000 manufactured exports. Belarus, Russia, and Ukraine have significantly more diversified manufacturing exports and export around 3,000 of the 5,000 possible manufacturing items. Frensch and Gaucaite-Wittich (2005) have shown that although the CIS export fewer products than advanced western economies, this difference is less for capital goods than consumer or intermediate goods. More generally, Hummels and Klenow (2005) demonstrate that country size and per capita income are significant factors explaining the cross-country variation in the number of products exported. For Belarus, Russia and Ukraine the new items represented a relatively small percentage increase not only in value but also in terms of the number of exported items. In particular, for Russia, the new items introduced by 2000 relative to 1996 accounted for less than one-tenth of a per cent of manufactured exports in 2000 and this same group of products accounted for less than a half of a per cent of manufactured exports in 2004. Overall then, these last three economies seem to have relatively stable export basket while the other CIS are characterized by rather rapid turnover of product items in their export structures.[54]

[54] Funke and Ruhwedel (2005) examine trends in the number of exported items for several of the CIS using the more aggregated 5-digit SITC-Revision 2. Generally the number of items exported between 1993 and 2000 remained relatively stable for Belarus, Russia and Ukraine, while increasing significantly for Georgia. These authors also suggest that export product variety in capital-intensive industries contributes to economic growth.

Examination of the introduction and elimination of new products also reveals that the PRODY for both sets of items are slightly higher than that of the overall manufactured export basket but are similar to each other. Combining this result with the fact that in value terms the new and eliminated products are fairly small, suggests that product turnover is not especially important for the trends in the EXPY measure. Russia is a minor exception with the PRODY of its eliminated items generally below its manufacturing export average; Ukraine is a major exception with its weighted PRODY of eliminated items being less than half of its average.

The PRODY measure and the factor intensity discussed previously in section IV are somewhat related in the general sense that as the per capita income of a country increases there is the expectation that its exports should move up the skills ladder. The average PRODY is $16,442 for high-skilled products, $17,111 for medium-skilled products, $14,714 for low-skilled products, $12,468 for labour and resource intensive products and $11,685 for non-manufactured goods. The only exception is the fact that the average PRODY for medium-skilled is slightly higher than for high-skilled products. Thus the analyses of this section which examines the EXPY and section IV would appear to examine a similar issue from slightly different perspectives. The allocation of products to their broad commodity groupings however would appear to be relatively crude since this allocation is done at a fairly aggregated product level (generally at the 2 or 3 digit SITC level) while the calculations of PRODY are done at the 6-digit HS level.

VII. The quality of CIS products

The commodity composition analysis has focused on the type of products exported; a related but separate issue concerns the quality of the products produced. Data limitations, however, further intertwine these two issues, and existing empirical analysis is not always able to clearly separate the two issues. The dominant empirical approach to examining the quality of products produced has been to look at the unit value of exports calculated by dividing the value of exports by the physical volume (or number) of exports. Generally it is believed that higher priced products reflect higher quality products. When this type of analysis is done by using an aggregated category such as with the SITC, the different items averaged may actually include different types of products. Thus what may appear to be a case of two countries exporting different quality products may be, if examined, at a more disaggregated level simply the result that they export different types of products. To take an extreme example, washing machines and clothes dryers are both in the same four-digit SITC 7751. If one country primarily exports washing machines and the other dryers, and assuming the price of these two household appliances differs in a systematic manner, then a calculated measure of unit values does not represent different qualities of a similar product but reflects the fact that different items are being exported. Although it is typical to make unit value calculations at a fairly disaggregated level, existing product categories are not so finely defined as to eliminate this aggregation problem.[55]

In addition, the problem may be too much disaggregation. For example, in some classification systems the size, power or materials may be used to place items into different classification categories, but it may be these features that are the basis of their being viewed by consumers as being higher quality products. Thus, unit values would not capture these quality differences.

Despite these qualifications, unit value calculations are nevertheless viewed as a useful measure of product quality. Since the trade data of the CIS do not allow this measure to be derived, estimates of unit values of CIS exports must be obtained from other countries. Table 8 provides data on calculated unit values of exports from several of the CIS to the EU during 2001 using the 5-digit SITC (UNECE, 2004, p.151). The price of items exported by the selected countries varies from 61 percent of the EU average for Moldova to 101 per cent for Azerbaijan but on average is about three-quarters of the average EU import price. This tendency to export "cheap" products is stronger for intermediate goods which average two-thirds of the average EU price, but is especially strong for capital goods whose

[55] In addition errors in classifying imports may an additional significant factor (GAO, 1995).

price is less than a quarter of the average EU price.[56] These results mirror those of Soviet Union/CIS exports to the EU for engineering products during 1988-1994 (Ferragina and Pastore, 2005). Earlier studies (for example, Kandogan (2003)) of the changes in quality of CIS exports after 1990s, have often found few quality improvements. Kozhevnikova (2005) finds that during the transition there was some increase in both export variety and quality, the latter being due to the shift from resource-intensive categories to human-intensive categories.

TABLE 8

Unit values of CIS exports relative to EU average

	All goods	*Intermediate goods*	*Capital goods*
Armenia	0.80	0.84	0.08
Azerbaijan	1.01	0.46	0.30
Republic of Moldova	0.61	0.64	0.13
Russian Federation	0.72	0.64	0.37
Ukraine	0.70	0.71	0.25
Average	0.77	0.66	0.23
Estonia	0.62	0.65	0.57
Latvia	0.62	0.63	0.27
Lithuania	0.70	0.71	0.19

Source: UNECE, *Economic Survey of Europe, 2004 No.1*, p.151.

Note: Based upon the 5-digit SITC-Revision 3.

Schott (2004) has shown that the cross-country variation in unit values is correlated with the per capita income of the exporters. Therefore, what has not been addressed explicitly is the degree to which the lower values of exports for the CIS are due to their lower per capita incomes (relative to the weighted average of the EU's trading partners) or are due to an additional explanatory factor such as perhaps their years of central planning. The UNECE (2004) analysis, although showing that the transition economies have lower unit values than the more advanced western European and north American economies, unfortunately does not include any additional developing or emerging market economies. Thus the existing evidence does not allow a determination of what would appear to be the fundamental question as to whether there is anything unique or "abnormal" about CIS export quality after it has been adjusted for per capita income effects.

VIII. Intra-industry trade of the CIS

Intra-industry trade[57] is often considered as a measure of the degree of product integration between markets. Generally as countries liberalize trade barriers the level of intra-industry trade increases; likewise, the level of intra-industry trade in a particular sector has been shown to be negatively related to the trade barriers in that sector (Shelburne, 2001). IIT is usually more common in trade of manufactured products than in raw materials and primary commodities, as it allows for larger product differentiation and economies of scale (Byun and Lee, 2005). Appendix tables 11.1-11.11 give the Grubel-Lloyd (GL) IIT indexes for several years at the three, four, and five-digit level of the SITC-Rev.3 for the CIS countries. This index for country *j* is calculated as:

$$GL\_IIT_j = \left(1 - \frac{\sum_k |x_{jk} - m_{jk}|}{\sum_k (x_{jk} + m_{jk})}\right) * 100$$

where x_{jk} and m_{jk} represent exports and imports of good *k* by country *j* (Grubel and Lloyd, 1975). The index for total trade is provided along with one calculated using only manufactures; in addition, the weighted index for each one-digit SITC (calculated at he more disaggregated levels) is also presented. Also included for each category is a measure of the degree that the sector is either a net exporter or

[56] These product groupings are based upon the Broad Economic Categories (BEC) and their mapping into the System of National Accounts (SNA).

[57] Defined as imports and exports of relatively similar items or different varieties of differentiated products.

importer of products. Net exports (Net-X) exist when exports are greater than imports for the product, while net imports exist when imports are greater than exports. Formally,

$$Net\_X_j = \frac{\sum_k (x_{jk} - m_{jk})}{\sum_k (x_{jk} + m_{jk})} * 100 \quad \text{when } x_{jk} > m_{jk}$$

$$\text{and } Net\_M_j = \frac{\sum_k (m_{jk} - x_{jk})}{\sum_k (x_{jk} + m_{jk})} * 100 \text{ when } m_{jk} > x_{jk}$$

Thus for each product, the sum of the IIT index (in the latest year column, usually 2004) plus the net export and net import measures will total 100. In the final column of each digit level, is a column labelled 2004-UN; this column provides the IIT index calculated from using only the trade allocated to the SITC categories by the UN Comtrade database at that level of aggregation. In other words, the values in this column do not include the trade allocated to subcategories X as discussed in section II. Some have argued that when the balance of trade is significantly in either surplus or deficit, that the traditional GL index is misleading; thus an index adjusted for the trade balance proposed by Aquino (1978) is also included[58] and calculated as:

$$A\_IIT_j = \left(1 - \frac{\sum_k |ax_{jk} - bm_{jk}|}{\sum_k (ax_{jk} + bm_{jk})}\right) * 100$$

where:

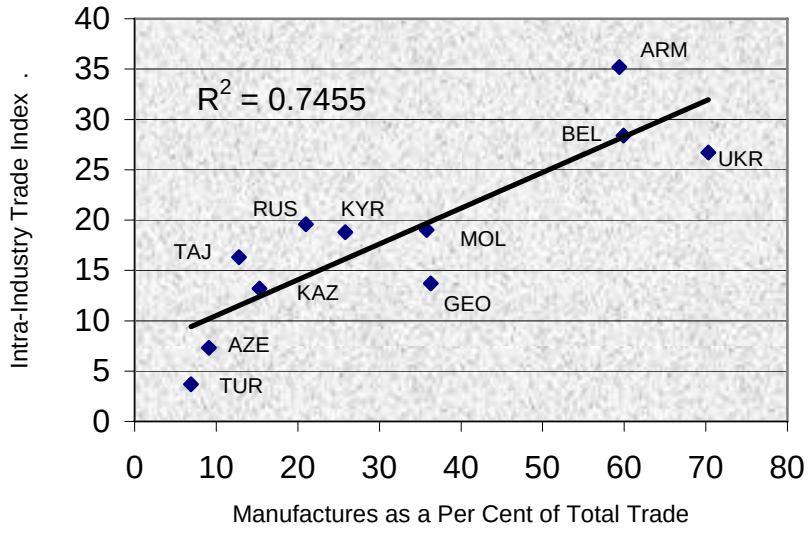
$$a = \frac{\sum_k (x_{jk} + m_{jk})}{2\sum_k x_{jk}} \qquad \text{and} \qquad b = \frac{\sum_k (x_{jk} + m_{jk})}{2\sum_k m_{jk}}$$

As expected the IIT index falls with disaggregation; generally it falls a few percentage points by going from the three-digit to the four-digit level and a few more going to the five-digit level. Russia would be somewhat typical with an IIT index of 22.2 at the 3-digit level, then falling to 19.6 at the four-digit level and 17.6 at the 5-digit level. Overall the levels of IIT in the CIS are low; at the three-digit level, five of the economies have IIT indexes below 20, three in the twenties, and only three (Armenia, Belarus, and Ukraine) above thirty.

[58] The Aquino index is typically used to adjust for a trade imbalance, however, Kol and Mennes (1986) have showed that it is really equivalent to a measure of the degree to which export and import shares (as opposed to volumes) are similar for industries. Lloyd (2004) has concluded that it is thus not "really an adjustment for the balance of trade." Shelburne (2001) proposed that IIT trade be evaluated not by its absolute level (as measured by the G-L index) but by the rate at which it declines due to further disaggregation, thus partially bypassing the significance of any trade imbalance.

CHART 7

Relationship between IIT and the share of manufactures



Source: Authors' own calculations, using data from appendix 4 and appendix 11 (based upon 4-diigit SITC).

Chart 7 shows that the level of IIT is highly related to the share of manufactures in total trade. This is not an unexpected outcome since the general view is that manufactures have much higher levels of IIT than non-manufactures; thus countries with a larger share of manufactures would be expected to have higher IIT. However, the situation with the CIS is much more complex than this. The manufactures IIT index (at the 4-digit level) was higher than the overall trade index (and thus for non-manufactures) for only four of the economies, with the other seven having higher IIT indexes for overall trade. However, the four that have the highest overall level of IIT are the same ones where manufactures IIT is greater than non-manufactures IIT. Thus where there is significant manufactures IIT then total IIT is significant as well, while those with low manufactures IIT have low IIT overall. Only three of the economies have an IIT index for manufactures above 20, three countries have values in the teens, and five have values below ten. These are all quite low; in advanced market economies the corresponding value is usually above 50 per cent. Estimates for the east European economies have found that IIT increased substantially after their reorientation westwards, and the manufactures index for central European economies were generally above 30 by 1995 while those in south-east Europe were generally in the teens.[59] The manufactures IIT index for emerging markets with sizable trade such as Mexico are around 40 at the five-digit level and 60 at the three-digit level (see, Shelburne, 2001; and Brulhart and Thorpe, 2001). For all the CIS except Ukraine, net imports exceeded net exports of manufactures regardless of the level of aggregation.

There is really no general trend during the time period analyzed, with IIT (at the three-digit level) going up in five economies and falling in five. The Aquino adjustment procedure for the trade balance had the effect of increasing the index in all cases. There was no consistent relationship between the more comprehensive database created for this study and the original data reported by the UN. At the five-digit level where the most data was "created" (see appendix table 1) the IIT index was larger using the comprehensive database for six economies and lower in five. The low level of IIT in manufactures for these economies is most apparent in comparing the indexes for the different one-digit industries. Only one economy (Russia in miscellaneous manufactures, SITC 8) had the highest IIT

[59] Calculations using the SITC-Rev. 1 at the five-digit level; see chart 3.6.3 in UNECE, *Economic Survey of Europe 1998 No. 1,* UN (Geneva).

index in a manufacturing sector; for all the other economies the highest level of IIT occurred in a non-manufacturing sector. Other than being a non-manufactures sector, the highest sector varied considerably with each sector being the highest for at least one CIS economy. In most cases, net imports were greater than net exports for the one-digit manufacturing sectors; this was the case for all four manufacturing sectors for four of the CIS and three out of four for six of the CIS. Net exports were largest for two sectors (manufactured goods –SITC 6 and miscellaneous manufactures—SITC 8) for only Ukraine.

One aspect of examining intra-industry trade is to study the degree to which changing trade patterns might impose structural change or employment reallocations on an economy. However, simply looking at the IIT index at one point in time or even its trend through time may not provide useful analysis of these issues. Generally it is believed that these issues need to examined by calculating a marginal intra-industry index (MIIT) that explicitly includes information about the direction of trade changes through time. For this analysis the Shelburne (1993) formulation of this index is used which is calculated as:

$$S\_MIIT_j = \left(1 - \frac{\sum_k \left| \Delta x_{jk} - \Delta m_{jk} \right|}{\sum_k \left(\left| \Delta x_{jk} \right| + \left| \Delta m_{jk} \right| \right)} \right) * 100$$

where the absolute value of the change (represented with a delta, Δ) in imports (m_{jk}) and exports (x_{jk}) between two points in time (generally, 2000 and 2004 where data is available) is used. Calculations of S_MIIT are provided in appendix 12.1-12.9 for nine of the CIS for which there was data covering the two-year time period 2002-2004 (2001-2004 for Kazakhstan) using three levels of aggregation at the 2-, 3-, and 4-digit levels of the SITC-Rev.3. The S_MIIT indexes are generally low suggesting that the recent growth of trade in the region has not been characterized by the similar expansion of exports and imports of similar products. This result combined with the observation that there has been little increase in the relatively low IIT indexes through time, suggests that in sectors where these countries were primarily importers, imports (and not exports) increased further, and in sectors where they were primarily exporters, exports (and not imports) increased further. At the two-digit level, the average S_MIIT was 30.2 varying from a low of 14.5 for Azerbaijan to a high of 65.1 for Belarus. At the three-digit level the average S_MIIT was 21.0 (ranging from 12.3 to 29.7) and at the four-digit level it was 17.6 (ranging from 7.8 to 22.4). As generally expected, the S_MIIT declines with the level of disaggregation although this is not a logical necessity as it is with the GL_IIT index. In most cases this is a rather moderate smooth decline, but Belarus is somewhat unusual with a relatively high S_MIIT of 65.1 at the two-digit level which falls quite significantly to only 28.1 at the three-digit level.

Also included in appendix tables 12.1-9 are calculations of the S_MIIT index for manufactures as well as the trade-weighted average indexes for each one-digit commodity sector. As with the GL_IIT index, there is no consistent tendency for the S_MIIT index to be higher for manufactures than for the total index (or for non-manufactures). At the two-digit level the manufactures S_MIIT are slightly higher for four countries and lower for five; these indexes are higher for five countries at the three-digit level and four countries at the four-digit level. Comparing the marginal index across one-digit commodity sectors reveals that the indexes were the highest in a manufacturing sector for only two countries at the 3-digit level and no countries at the four-digit level. Overall, the S_MIIT calculations reinforce the conclusions of the GL_IIT calculations, that intra-industry trade in the CIS is quite low, and where it is significant is generally in a non-manufactures sector.

A closer examination of some of the products exhibiting high levels of intra-industry trade reveals that often what is being captured as intra-industry trade is really not that at all if it is defined using the commonly accepted definition of that term involving trade in different product varieties. For example, at the four-digit level, Armenia imported $217.2 million and exported $221.0 million diamonds (SITC

6672) in 2004. This industry is essentially one where rough diamonds are imported and polished and then exported.[60] This industry is thus one that could most appropriately be described by the Heckscher-Ohlin factor proportions trade explanation, as this polishing is a labor-intensive activity. Therefore the simultaneous import and export of diamonds has absolutely nothing to do with consumers' desire for the love of variety or the desire for the ideal variety of differentiated products that is central to the theoretical basis for IIT. A similar pattern exists for Armenia's fourth largest export and import which is non-monetary gold (SITC 9710). There is nothing unique about this finding as regards the CIS; for example, Shelburne (2001) provides evidence that much of what is reported to be IIT between the U.S. and Mexico is actually trade in components being re-imported under the same classification code after processing or assembly. This problem can often be addressed by using more disaggregated product data, but much of the empirical work on IIT does not use such disaggregated data.[61] In these particular cases, at the five-digit level most of the diamond imports fall into SITC 66722 while the exports go to SITC 66729; although most of the exports and imports of non-monetary gold fall into SITC 97101.

IX. The similarity in the trade structures of the CIS

An issue of some interest concerns the similarity in the trading structures of the CIS. The issue is of importance in regard to several questions such as whether the CIS are global competitors of each other and thus whether more emphasis on exporting might subject them to falling terms of trade as they all tried to export the same goods. In addition, with the rapid rise of China as a major exporter, a similar question arises as to whether the CIS are in competition with China for global markets. In order to compare trade structures, a Finger-Kreinin (1979) index is calculated to measure similarity, with 100 being perfect similarity in the distribution across commodities and zero being no similarity. More specifically, where x_{jk} represents the exports of product k by country j, X_j is total exports of country j, and x_{ik} and X_i are the similar variables for country i, the Finger-Kreinin index for export similarity between countries i and j is:

$$FK_{ij} = 100(1 - (.5\sum_k \left| x_{jk}/X_j - x_{ik}/X_i \right|))$$

In appendix table 13A those values in the lower left of the table compare the export structures of the different CIS countries. Thus for example the 6.6 in the Belarus row under the Armenia column gives the similarity of Belarus' export structure with that of Armenia; this is a very low value so that these two economies do not export similar products. Overall the indexes are quite low, being roughly about one-half of what would be obtained using a sample of advanced economies, suggesting that each one of the CIS is specializing in different commodities and is not likely to be in direct competition with each other.

A similar conclusion holds for the CIS and China: overall they export largely different products. There are a few exceptions to these general conclusions; for example Kazakhstan and Azerbaijan tend to export similar products. The values in the upper right half of the table compare the import structures of the countries (m replaces x in the FK formula); as is very apparent, they are much more similar than the export structures. In appendix table 13B the export structures of each country are compared to the import structures of the other countries as well as their own. Generally these countries do not export baskets of goods that are similar to the baskets of goods being imported. Appendix tables 13C and 13D provide the same analysis for manufactures trade. Generally the trade structures are much more

[60] Interestingly, this industry, which accounts for over 30 per cent of Armenia's exports, is a relatively new one having been created after the breakup of the Soviet Union.

[61] Adjusting the export data for reported re-exports can also reduce but not eliminate this problem.

similar when focusing on just manufactures. To a large degree this reflects the fact that the CIS tend to specialize in natural resource products significantly different from one another; thus their overall export structures are quite different, but for their manufactures there is more direct competition between them and a higher demand for each other's products. There is noticeable but not excessive overlap between the manufactured exports of most of the CIS and China; Moldova and (somewhat surprisingly) Turkmenistan appear to export similar products as China. The comparisons of the manufactures export structures and the import structures provided in appendix 13D shows that there is significant demand for CIS manufactures in the other CIS countries. The fact that CIS manufacturing exports to non-CIS countries are quite modest suggests that further expansion of these economic activities to those markets is unlikely to result in any significant declines in their terms of trade. Detailed analysis of the similarity of manufactures export and import structures in the appendix table 13D shows that there is higher complementarity between China's import structure and the CIS export structure than the other way around. As such, Azerbaijan, Russia, and Turkmenistan seem to have the most potential for exporting their manufactured goods to China; the similarity of Armenia's exports to China's imports is the lowest in the group.

The fact that the CIS do not appear to have export structures which significantly overlap would suggest that the geographical concentration of production within the CIS is relatively high. There are numerous factors that might account for this, including the large variation that exists in geographical zones in terms of climate or landscape and the dispersion of resources throughout the region. However, an additional factor might be the fact that these economies were once part of the same country. Given the different economic system that existed in the Soviet Union, it is always somewhat speculative to make comparisons with the western economies, but the comparisons of geographical concentration between western Europe and the United States may be of relevance. The comparisons have found that there is more geographical concentration of manufacturing in the United States than in the European Union (Krugman, 1991) while Greenaway and Hine (1991) have concluded that economic integration tends to increase the geographical concentration of particular activities. It is therefore possible that the geographical concentration of industries in the CIS is a remnant of the fact that the CIS economies were once part of the same country. The emphasis on economies of scale that seemed ingrained into Soviet planning would have further enhanced this tendency towards geographical concentration.

X. Preferential trading arrangements concerning the CIS and WTO accession

With the break-up of the Soviet Union, the CIS was created with the intent of maintaining much of the existing economic integration;[62] however the members have never been able to agree on a comprehensive program, and the proposal to create a CIS-wide free trade area or customs union does not seem to have adequate support from a number of the CIS members, and thus its prospects remain unlikely. Much of the liberalization that has occurred has been in smaller regional groupings, especially the Eurasian Economic Community (EEC),[63] and bilateral free trade deals. Although a large number of bilateral agreements have been signed, it is generally conceded that many of these have not been implemented. Out of 132 bilateral trade flows in the CIS, 82 of the flows are covered by a bilateral free trade agreement. This averages out to around seven per country but varies from a low of two for Tajikistan to a high of 10 for Moldova and Uzbekistan. Despite these agreements there are

[62] The Commonwealth of Independent States was created in December 1991 by 11 of the countries of the FSU excluding the Baltic states; Georgia joined in 1993. In 1994, 11 of the CIS (excluding Turkmenistan) signed a free trade agreement which has never been fully implemented for a number of reasons including the fact that Russia's State Duma has never ratified it. Dispute settlement within the CIS is overseen by the Economic Court of the CIS which was created in 1992 and became operational in 1993; see Danilenko (1999) for a discussion of the activities of this institution.

[63] The EEC (or EurAsEc or EAEC) was created in October 2000 by Belarus, Kazakhstan, Kyrgyzstan, Russia and Tajikistan, with Uzbekistan joining later; in addition, Armenia, Moldova, and Ukraine have observer status. The EEC grew out of the Customs Union of the CIS agreement of 1995 which included the original members of the EEC. Among the goals of the EEC is the creation of a full customs union and common market and creation of a common transportation system and energy market; in addition it represents member states' interests in dialogue with international organizations and other countries on matters dealing with international trade and customs.

currently only about 50 flows where trade is relatively free, but even with these there are often extensive product exclusions.[64] Even when tariffs are low or free, there are often numerous other types of restrictions that serve to limit trade. The failure of countries to implement existing agreements has created uncertainties and suspicions about further liberalization or negotiating any new agreements. Currently, Belarus and Russia (which have an existing customs union) are probably the most integrated of any group of CIS members,[65] and the EEC represents probably the grouping most likely to evolve into a legitimate customs union as it has already achieved relatively free trade amongst its members. Although judging the extent of liberalization is subject to various interpretations, Azerbaijan, Moldova,[66] and Turkmenistan currently seem the least committed to free trade with the other CIS, followed by Armenia, Georgia, and Ukraine. Roberts and Werheim (2001) estimated that only 60 per cent of Russian trade with the other CIS was conducted on a free-trade basis.

The Common Economic Space (CES)[67] created at Yalta in 2003 which includes Belarus, Kazakhstan, Russia and Ukraine has also set creation of a customs union as its objective. How this can be reconciled with the EEC is not clear since it is not possible to be part of two customs unions. Within this group, there have also been discussions about the creation of a common currency but there is disagreement if it should be the rouble or some new currency; Kazakhstan advocates the latter and has suggested it be called the altyn (Sushko, 2004). Other CIS groups include the Central Asia Cooperation Organization (CACO) composed of Russia and four Central Asian countries (all except Turkmenistan); and GUUAM**,** a regional organization comprised of Georgia, Uzbekistan, Ukraine, Armenia, and Moldova that is aimed at promoting and facilitating multilateral cooperation in a number of areas, including transport and commercial sectors. A number of the CIS have also joined organizations with non-CIS members; prominent among these is the Shanghai Cooperation Organization (SCO) whose original focus was on regional security and stability but has been shifting over the years more towards economic cooperation.[68]

The EU's trade relationship with the European CIS is developed under the European Neighbourhood Policy. Sutela (2005) argues that this relationship has been difficult due to its asymmetric nature with the EU being a major market for Russia but Russia being a largely insignificant market for the EU; the increasing importance of energy may alter this asymmetry. Sulamaa and Widgren (2003) examine the gains from further integration between the CIS and EU-25 using a GCE model;[69] they find that not every member of either bloc gains from further integration. They suggest that in order for the CIS to improve its gains it is necessary for them to increase productivity through FDI and further institutional reform. Manchin (2004) concluded that Russia would actually experience a welfare loss from a Russia-EU FTA if it was limited to only industrial goods; this is due to the fact that EU tariffs are currently lower than Russian tariffs. Presumably Russia suffers a terms of trade loss despite the fact that its exports increase significantly in some sectors such as doubling for clothing. Although Russian exports of a number of manufactures increase, such as a predicted 50 per cent increase for motor vehicles, domestic production falls due to even greater imports. If the FTA is assumed to include agriculture and services, Russia is able to gain. These studies therefore suggest that further trade liberalization with the EU might be quite limited. Due to the strategic significance of Europe's dependence on energy from the CIS and a number of market failures

[64] Freinkman et al. (2004a) provide a table describing which bilateral flows are covered by a free trade agreement while UNECE (2005) provides an assessment of which bilateral arrangements are "effective."

[65] The different pace towards creation of market economies is beginning to strain this economic relationship with Belarus lagging significantly in terms of privatization, liberalizing prices, and establishing competitive markets.

[66] Moldova has been more active in pursuing free trade agreements outside the CIS, such as with Romania and Iran.

[67] Sometimes referred to as the Single Economic Space (SES).

[68] The Shanghai Cooperation Organization was established in 1996 by China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan.

[69] An earlier study, prior to enlargement, of the effects of an FTA between the EU and Russia was undertaken by Brenton, Tourdyeva, and Whalley (1997); they found that the direct trade benefits would be relatively small since liberalization would be limited to industrial tariffs that are already fairly low.

in that sector, including the lack of competition, a more activist government role (as opposed to relying on private sector transactions) may be warranted for EU-CIS energy trade (Kalyuzhnova, 2005).

The institutional structure of the various CIS regional arrangements is discussed in detail by Jachia (2005), while the political dimension is addressed by Grinberg (2005) and Pomfret (2005). The failure to achieve more meaningful economic integration in the region probably has as much to do with political considerations as with economic ones; there is widespread suspicion that Russia views economic integration as a means towards political reintegration. The possible economic implications of CIS integration have been explored by Michalopoulos and Tarr (1997) who have generally concluded that that any type of protective customs union would be inferior to more general multilateral openness. These authors reach this conclusion based upon more traditional international trade modelling techniques, which do not allow for the traditional type of dynamic and macroeconomic effects that are part of the industrial policy literature. In a somewhat iconoclastic paper Cudmore and Whalley (2003) point out that if there are constraints on the volume of customs clearance with queuing costs being endogenous, tariff liberalization can be welfare reducing while corruption in the form of bribes for customs clearance may be welfare improving. This suggests the importance of improving customs procedures as a precondition for trade liberalization.

Regional economic cooperation among CIS countries is hindered by a variety of technical barriers to trade, incidences of regional instability and conflict, prevalent corruption and lack of transparency of the regulatory environment, drug trafficking, and lack of security. Many of the CIS have limited access to world markets for a number of reasons. High transportation costs in the CIS substantially reduce the competitiveness of their exports on the world market and increase the cost of most imports, thus reducing inter- and intra-regional trade. For instance, Molnar and Ojala (2001) have calculated that transport costs to world markets by the CIS-9 (CIS minus Belarus, Russia, and Ukraine) are three times higher than in the developed countries and in some cases may approach 50 per cent of the value of the item. Such high costs are mainly due to the fact that many of the CIS countries are disadvantaged geographically, being either landlocked or outside the main trade routes; in addition, they lack modern infrastructure and have fragmented transport markets that prevent economies of scale. Raballand, Kunth and Auty (2005) emphasize the low density of economic activity in central Asia as a source of high transportation costs. They find that there is a "virtual border" between Poland and Belarus with transport times and costs per kilometre continuing to rise as one goes further eastward. They estimate that the average speed of rail transport (which accounts for 90 per cent of CIS freight transport) is 60km/hour in the EU versus 45km/hour in the CIS, while the differential is even greater for truck transport (70km/hour in the EU and only 37.5km/hour CIS). These authors also emphasize the importance of the current institutional structure of the transport network in central Asia as an important source for these higher transport costs. This includes the ownership structure as well as their pricing policies. To the degree that this aspect of the problem is man-made, it may be more amenable to policy action.

The higher transport costs are significantly exacerbated by the widespread unofficial payments and red tape. Incidence of unofficial payments at the customs control points is most prevalent in Central Asian countries and the Caucasus. In addition, unofficial entry and transit fees as well as border-crossing procedures at numerous border-crossing points are subject to continuous change, making logistics and delivery time unpredictable. An example of the burdensome administrative costs of trade includes the number of documents required for exporting and importing by many of the CIS. Most of the western European countries require about 3 to 5 documents to import or export a standardized cargo of goods. However Azerbaijan, Kazakhstan, Kyrgyzstan, and Uzbekistan require 18 documents for importing, and Georgia requires 15, while Kazakhstan requires 14 for exporting (UNECE, 2006). Given that many of the primary CIS exports are low value commodities transported by road and manufacturing goods where the value of purchased direct materials varies from 50 to 75 per cent of the sale price, such added costs make exports unprofitable, especially for small and medium sized enterprise (Molnar and Ojala, 2003). Clearly the creation of a unified consistent CIS customs document would allow for less costly and speedier border crossings. It is also important to take into account the impact of closed borders on trade; although the costs of "blockage" have been declining

over the past decade in some countries, they remain significant, especially in the Caucasus and central Asia. For example, Freinkman at al. (2004b) estimate using a gravity model that the costs of closed borders for Armenia are in the range of 10-13 per cent of GDP. Differences in technical standards also act as technical barriers to trade; the creation of common standards or acceptance of the principle of mutual recognition of the others' standards would contribute to improving export opportunities and lowering the costs of imports. Thus high transportation costs, technical barriers and closed borders are a common cause of trade diversion, preventing many of the CIS countries from exploiting their trade potential in goods that would otherwise be cheaper and more competitive relative to the same products from other countries.

The benefits of economic integration are usually not shared equally among countries. This was the subject which Gunnar Myrdal, first ECE Executive Secretary, chose to address in his Nobel lecture. More recent research using the newer models of economic geography further supports this conclusion. Thus for example, the EU deals with this possibility by providing assistance to its poorer regions and by creating a political power structure which gives greater weight to its smaller and poorer members. One reason often cited for the failure in the developing world of preferential trading arrangements (PTAs) is that the benefits accrued mostly to the advanced nations in the group, and the poorer nations ultimately dropped out. With a preferential CIS arrangement Russia would need to be willing to offer this type of assistance. Likewise, the proposed voting structure in the Common Economic Space (CES) is proportional to GDP; this gives Russia a controlling interest. Therefore in terms of aid and power structure, what is being proposed in many of the developing regional trading arrangements composed of CIS economies differs substantially from the EU model. Any really meaningful preferential trading arrangement in the CIS would have to include Russia, otherwise the region would be too small to have much of any real effect. Progress in forming any preferential arrangement is complicated by the issue of WTO membership; and with WTO accession approaching for Russia perhaps within a year, any additional progress in forming preferential arrangements will most likely have to wait until after that step is completed.

In parallel to regional preferential arrangements, the CIS countries are also pursuing multilateral integration initiatives, most importantly WTO membership. Many of the CIS countries realized the prospective benefits of WTO membership quite early and considered WTO accession as one of their strategic policy objectives. Four CIS countries have acceded to the organization, namely: Armenia (February 2003), Georgia (June 2000), Kyrgyzstan (December 1998) and the Republic of Moldova (July 2001). Turkmenistan has not submitted an application for membership as it regards it incompatible with its policy of neutrality, and the other seven countries are at different stages in the accession process. Table 9 provides an overview of the status of the CIS countries accession negotiations.

It is often noted that the new applicants for the WTO are disadvantaged relative to the old members, as the accession process has become more difficult compared to the GATT accession process. One indication of this is changes in tariff commitments, specifically the increase in the percentage of individual tariff lines bound upon accession and a reduction in the level of bindings (WTO, 2003). Overall, the WTO obligations have become wider and more invasive; in addition, there is an imbalance in the obligations of the old and new members (for example, with regard to agriculture subsidies), special and differential treatment is applied only to developing but not to transition economies, and existing members' trade concessions demands often exceed the scope of WTO agreements (UNCTAD, 2001). Despite these difficulties associated with accession, the CIS have pursued WTO membership for a number of reasons in addition to obtaining market access and unconditional most favoured nation (MFN) treatment. First and foremost, these economies desire WTO membership because it is seen as a stamp of approval of the country's commitment to market-based principles and liberal trade policies, thus making it more attractive for foreign investors. Other membership benefits include access to restricted information, the ability to compete in the global marketplace under international trade rules, assistance with institution building pre- and post-accession, access to a binding dispute settlement mechanism, and participation in the interpretation of current rules and the design of new regulations (UNECE, 1999).

TABLE 9

Status of the CIS countries' accession negotiations

	Working party	Memorandum circulation	Working party meetings		Market access negotiations		Factual summary	Working party
			Dates (first & last)	Total number	Goods	Services	Report	Draft Report
Azerbaijan	July 1997	April 1999	June 2002/ June 2005	3	May 2005/ Feb. 2006	May 2005/ Mar. 2006	-	-
Belarus	Oct. 1993	Jan. 1996	June 1997/ May 2005	7	Mar.1998/ May 2004	Feb 2000/ Nov 2004	Apr. 2005	-
Kazakhstan	Feb. 1996	Sep. 1996	Mar 1997/ June 2005	8	June 1997/ May 2004	Sep.1997/ June 2004	-	May 2005
Russian Federation	June 1993	Mar. 1994	July 1995/ Oct. 2005	29	Feb. 1998/ Feb.2001	Oct 1999/ June 2002	-	Oct. 2004
Tajikistan	July 2001	Feb. 2003	Mar. 2004/ Apr. 2005	2	Feb.2004/ Apr. 2005	Feb. 2004/ Apr. 2005	Apr. 2005	-
Ukraine	Dec. 1993	July 1994	Feb. 1995/ Nov. 2005	15	May 1999/ May 2002	Feb 1997/ June 2004		Aug. 2005
Uzbekistan	Dec. 1994	Oct. 1998	July 2002/ Oct. 2005	3	Sep. 2005	Sep. 2005	-	-

Source: World Trade Organization.

Russia is the largest economy in the world that remains outside of the WTO system.[70] Currently average statutory tariffs in Russia are about 11 to 12 per cent, with a "top" rate of 20 per cent, although higher rates apply for a number of goods including used cars and sugar; there are numerous non-tariff barriers as well. As part of its WTO accession Russia is to lower its tariffs on manufactures and food products to about half of their current levels. Obtaining a bilateral agreement with the United States is essentially Russia's last barrier for WTO membership (in the summer of 2006); key issues are the level of agricultural subsidies, tariff protection for the aircraft industry, the acceptability of U.S. safety standards for beef and pork, intellectual property protection, and foreign access to Russia's financial market (Economist, 2006). The other large economy is Ukraine which is also close to obtaining WTO membership but seems more interested in a preferential trade agreement with the EU (considered collectively, the EU is their largest trading partner) than with the other CIS.[71] Although Ukraine increased the pace of liberalization after the orange revolution, fatigue is now apparent, and tariff barriers remain somewhat above those of Russia. Major issues that still need to be addressed include intellectual property rights, agricultural subsidies, and export taxes on scrap metal, hides, and some agricultural products. In a number of the CIS the direction of future trade policy is a political issue for which the different political parties disagree. In Ukraine, for instance, the Orange coalition's program stresses WTO membership followed by a free trade agreement with the EU, while its main opposition, the Anti-crisis coalition (ACC), puts more emphasis on the Russian supported Common Economic Space (CES).[72]

[70] General overviews of Russia's WTO accession are provided by Chowdhury (2003) and Stern (2002).

[71] The EU and Ukraine signed a bilateral agreement on trade covering textiles and clothing in December 2004, which set a common tariff rate for these products; the EU has also offered the possibility of a customs union after Ukraine obtains WTO membership.

[72] However there is disagreement within the ACC as to whether the objective of the CES should be simply a free trade area (the position of the Socialist and Party of the Regions) or if it should be a customs union and/or monetary union (the Communist's position). Obviously, Ukraine cannot have a customs union with both the EU and the CES.

Belarus continues bilateral and multilateral negotiations with regard to the country's accession to WTO; however there has been little progress made and accession prospects remain more distant compared to other CIS countries. Azerbaijan is working on meeting the requirements for WTO accession and the negotiation process might be completed in a year. Although Azerbaijan complied with the WTO requirement on liberalization of foreign exchange and payment systems in 2004, there are other issues that remain to be resolved, including subsidization of domestic energy prices and natural monopoly regulation.

Of the central Asian CIS, Kyrgyzstan is the only member of the WTO (being the first CIS member to join in 1998, which even preceded the joining of the Baltic countries), as the other central Asian CIS have been unwilling to relinquish their policy autonomy and dismantle their non-tariff barriers although all except Turkmenistan (who has yet to apply) are in various phases of the accession process (Pomfret, 2005). Currently Kazakhstan and Tajikistan are the most advanced while Uzbekistan negotiations have not progressed as far, and its accession prospects remain quite distant even though it applied for membership in 1994 before any of the other current non-members.

Although substantial trade liberalization has occurred in Russia, Kazakhstan and Ukraine over the last decade, the other CIS non-members' trade regimes are still characterized by relatively high levels of customs tariffs and non-tariff barriers, and comprehensive structural reforms of key economic sectors have yet to be completed.[73] Despite the fact that many former state-owned enterprises have been privatized, these were often insider-type privatizations that relied heavily on worker/management buyouts and as a result there has been only marginal restructuring (Broadman, 2004). In many sectors there is still limited competition among domestic enterprises due to low enforcement of existing rules and regulations, ineffective commercial dispute resolution systems, and various forms of corruption. Policymakers anticipate that WTO membership will accelerate more in-depth structural reforms and increase the competitiveness of the domestic business sector; however, they also realize that substantial progress is still needed in restructuring economic and institutional policies towards market principles prior to WTO accession.

The effects of WTO membership on the CIS that have already joined have not been studied in detail. A causal comparison of their subsequent growth rates with the non-members does not suggest that membership had any significant effect on economic growth. No real empirical attempt has been made to isolate a WTO effect by controlling for other factors. Pomfret (2005) offers some explanations as to why other negative factors were important for Kyrgyzstan and argues that their relatively poor economic performance since 1998 was not primarily the result of WTO accession; he does suggest however that the authorities failed to negotiate appropriate transitional arrangements. In a larger study of transition economies, Campos (2004) concluded that WTO membership had no significant effect on growth, FDI, or even trade openness (defined as the trade to GDP ratio).[74] The latter finding is somewhat in agreement with the findings of Rose (2002), who did not find convincing evidence that membership in the multilateral trade system is associated with more liberal trade policy. On the other hand, Subramanian and Wei (2003), Babetski et al. (2004) find more robust evidence that the WTO has a strong and positive impact on trade, although imports of industrial countries have generally increased substantially more than imports of developing countries. Toole and Lutz (2005), also concluded that membership in the WTO failed to explain the degree of trade openness of a sample of transition economies.[75]

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[73] For instance, Russia's average trade-weighted statutory tariff rate is only 12 percent, which is lower than that in many developing countries. It has also achieved greater uniformity in tariff structure through consolidation of import duty bands (Broadman, 2004).

[74] Note that Campos (2004) did attempt to control for some other factors such as initial income, average years of schooling, fiscal balance, natural resources population size, and growth in the OECD countries.

[75] These authors measured openness as imports per capita and then used that as the dependent variable in a regression with several other factors including WTO membership; however the regression did not include most variables generally used in gravity models to estimate trade flows; most notably there was nothing to proxy the geographical location of these economies or their distances from other markets.

Several studies have attempted to determine the economic implications of WTO membership for those yet to join. The Russian Academy of Sciences (RAS, 2002) estimated that Russian GDP would increase by approximately one per cent from WTO accession based upon an input-output model. Jensen, Rutherford and Tarr (2004) find that Belarus and Russia will gain more from domestic liberalization of tariffs and FDI in the service sectors than from improved market access to non-CIS markets. Their findings suggest that the gains from WTO membership for Russia can vary from around 3.3 per cent of GDP in the medium term to 11 per cent in the long-term. Export-intensive manufacturing sectors are predicted to experience the largest expansion with non-ferrous metal, ferrous metals and chemicals forecasted to benefit the most, while the machinery, food, light industry and construction materials sectors experience output declines. Given the well established negative distributional effects that can sometimes accompany liberalization, it is somewhat surprising that they find that 99 per cent of households benefit from WTO accession in the medium run although unskilled workers that are laid off are likely to suffer in the short term. Berglöf et al. (2003) estimate that limited market access due to non-membership in the WTO has reduced exports by only three per cent; instead these authors stress the importance of WTO membership for encouraging FDI and establishing an external anchor for locking in domestic reforms.

Pavel and Tochinskaya (2004) employ a computable general equilibrium model to assess the impact of Belarus' WTO accession on its economy; they find an overall positive effect, particularly as a result of their tariff reductions, expanded market access and tax policy reform. Their calculations show that even after accounting for the increase in the price of gas imports and domestic tax policy adjustments, WTO membership will lead to positive welfare gains and an increase in the share of non-CIS countries in Belarus' trade. With regard to particular industries, outputs of the oil and gas, chemicals, and petrochemicals industries would benefit most, whereas outputs of timber, pulp, paper, glass and porcelain, and other protected industries would be affected negatively. They conclude though that the main benefit of Belarus' WTO accession will come from reform of the domestic tax system, in particular reduction of export taxes, subsidies and other privileges.

TABLE 10

Effective tariff rates for imports of manufactures by country

Exporter country	Year	World simple average	World weighted average	CIS & SEE weighted average	Per cent of tariff line observations by effectively applied tariff level				
					0-5 %	5-10 %	10-20%	20-50%	50+%
Armenia	2001	2.90	1.32	1.25	71.0	29.0	0.0	0.0	0.0
Azerbaijan	2002	9.66	6.97	6.24	38.4	9.9	51.7	0.0	0.0
Belarus	2002	11.66	10.36	10.36	34.6	17.1	47.7	0.7	0.0
Georgia	2004	5.95	6.31	5.56	56.5	12.4	30.4	0.6	0.0
Kazakhstan	1996	9.17	8.52	8.80	57.8	5.0	24.3	12.6	0.2
Kyrgyzstan	2003	3.71	2.86	1.80	65.8	30.7	3.0	0.4	0.0
Republic of Moldova	2001	3.92	2.87	3.08	78.7	7.3	12.5	1.5	0.0
Russian Federation	2002	10.38	8.96	8.60	41.4	19.7	38.9	0.0	0.0
Tajikistan	2002	7.23	8.44	6.37	82.3	3.4	12.7	1.6	0.0
Turkmenistan	2002	3.34	1.10	0.66	85.2	3.8	4.9	5.8	0.3
Ukraine	2002	7.69	6.42	5.97	58.8	19.9	14.0	7.3	0.0
Uzbekistan	2001	10.64	6.16	5.29	41.7	31.6	6.5	20.1	0.2

Source: Compiled from statistics in the TRAINS database.

Note: The tariff line for one product may be counted multiple times if different provisions apply.

Table 10 provides the effective tariff rates for manufactures for each of the CIS using a number of criteria, including the simple average and the trade weighted average for their imports from the world, the weighted average for their trade with the other CIS and the countries of south-east Europe, and the distribution of their tariffs by different tariff levels. These data clearly show that the current WTO members have significantly lower tariffs than the other non-members. An exception is non-member Turkmenistan which has relatively low tariffs; of the WTO members, Georgia's tariffs are noticeably higher. The highest average tariffs belong to Belarus, Russia, and Uzbekistan, which all have simple

averages slightly above 10 per cent, with Azerbaijan and Kazakhstan above nine per cent.[76] In this table Turkmenistan has relatively low tariffs, but Tumbarello (2005) refers to it as one of the least open of the CIS even though she also finds its average tariff to be low.

Given all the regional initiatives towards forming free trade areas or customs unions, and the desires to join the WTO as well, there are a number of questions as to whether these objectives are mutually consistent, and if so, if there is any optimal order for sequencing them. Of course at the most basic level there is no inconsistency since the WTO allows customs unions; however there are a number of significant practical issues. More specifically, should they form a customs union first and then join the WTO jointly or should they join the WTO individually and then form a customs union? By creating a customs union first, the countries might have some improved bargaining power in their WTO negotiations and at the same time could avoid situations where the early joiners attempted to extract concessions from those joining later. There would be a significant problem in determining the political power within the customs union in regard to who would do the negotiating so that the costs and benefits would be equitably distributed amongst the countries. The fact that some of the countries are already in the WTO complicates this scenario even further, since it places considerable constraints on what the customs union's common external tariff would initially be. This problem would be even greater, however, if they joined individually, since picking anything other than the lowest tariff could require compensation to other WTO members. In this situation the common tariff would generally have to be the lowest amongst them.

The fact that the export structure and presumably the production structure in the CIS economies vary considerably suggests that this could be a significant problem. Each of the CIS would likely accept in WTO negotiations very low tariffs for all the items for which they do not have a viable domestic industry and preserve the relatively high tariffs for the domestic industries they do have. Given the degree of specialization within the CIS (or EEC), there would almost always be at least one of them that did not have a viable domestic industry and thus the lowest tariff amongst them would almost always be quite low. Thus the common external tariff under the "join the WTO first" scenario would end up being quite low. Technically they could provide compensation and choose a higher tariff but this could prove to be quite costly.

Basically for the reasons discussed, Tumbarello (2005) has concluded that the scenario of joining the WTO first is therefore likely to lead to an overall lower level for the common external tariff. Within a standard neoclassical trade model where welfare increases with liberalization (assuming limited terms of trade effects) the WTO first strategy would therefore result in higher levels of welfare. This approach to evaluating welfare outcomes however, ignores entirely any dynamic benefits that might be obtained from infant industry or industrial policy effects which will be discussed in the next section.

XI. Manufacturing prospects for the CIS

The future potential for the manufacturing industries in the CIS varies considerably. The European CIS currently have the most developed manufacturing industries, and their prospects would appear to be reasonably good. This is less true for Georgia and Armenia, but there would appear to be no insurmountable problems for the future development of these sectors. Given their small sizes, the optimal policy direction for most of these countries would appear to be to pursue a trade liberalization strategy that will facilitate their ability to reap the benefits of scale economies and importation of advanced technology through FDI inward investment. Nevertheless the attractiveness of locating industries in their borders will depend very much on their continuing development of quality domestic governance institutions, maintenance of competitive tax and wage structures, and investment in domestic physical infrastructure and human capital formation. An important ingredient for manufacturing success for these economies is the need to implement an effective science and

[76] Note that the dates for these tariffs averages differ slightly, which may affect the ability to make cross-country comparisons; this is especially the case for Kazakhstan whose data are from 1996.

technology policy. Although these economies may initially find their comparative advantage to be in technologically unsophisticated industries, the potential for future growth will be quite limited if they are unable to move up the value chain. Thus they need policies that will encourage the importation of technology such as strong intellectual property laws and the development of domestic absorption capabilities such as improved educational facilities.

The natural-resource rich economies are less dependent on manufactures as a route to sustained economic growth; nevertheless a viable manufacturing sector is likely to be beneficial as a mechanism for promoting both economic growth and political stability. A likely avenue for them is to develop the higher value-added downstream products associated with their natural resource abundance. Some form of industrial policy might prove advisable given the externalities and market failures involved. Careful implementation of macroeconomic policy may prove to be especially important given the possible harmful consequences for manufacturing of Dutch Disease effects (Rosenberg and Saavalainen, 1998). From an analytical point, it can be difficult separating out what is actually a Dutch Disease effect. For example, evidence of an appreciating currency need not necessarily imply a mechanism of this type since it could reflect a more general Balassa-Samuelson effect. Kuralbayeva, Kutan and Wyzan (2001) find evidence of a Dutch Disease occurring in Kazakhstan during the 1990s; however, it is debatable if the decline in manufacturing that occurred during the transitional recession should really be blamed on this, especially since it appears to be a trend even in many of the non-resource rich CIS and there are so many other suspects.

The post-1999 increase in energy prices and their further escalation in 2004 along with appreciating currencies do not seem, so far at least, to have created any real symptoms of a new outbreak of Dutch Disease despite the fact that it is increasingly discussed in the Russian popular press and newspaper editorials. For Russia at least, this is also the conclusion of Roland (2005) who suggests that although there has been a significant appreciation of rouble, it is most likely due to Balassa-Samuelson effects; in addition, he argues that Dutch Disease is primarily a problem for a small open economy and not a large, relatively closed (based upon its trade to GDP ratio) economy such as Russia. In Russia, overall real output in the manufacturing sector was up 10.5 per cent in 2004, 5.7 per cent in 2005 and up 2.8 per cent in the first quarter of 2006 over the similar period in 2005 (www.gks.ru).[77] In addition, Russian manufactured exports increased by 60.1 per cent between 2000 and 2004, although manufactured imports increased over the same period by over 140 per cent. Russian manufacturing appears to have benefited from the recent increase in gross fixed investment which has been undertaken by the commodity-based corporations. Manufacturing value added increased at an annual rate of 25.2 per cent in Azerbaijan and 10.6 per cent in Kazakhstan over the 1998-2003 period (Dowling and Wignaraja, 2006), while manufactured exports increased by an annual rate of 30.8 per cent for Azerbaijan and 18.0 per cent for Kazakhstan between 2000 and 2004. In fact, Dowling and Wignaraja (2006) conclude that in these economies "a vibrant oil and gas sector has stimulated manufacturing development." In addition to the stabilization funds, an additional explanation for why the Dutch Disease has not materialized greatly in the region is likely to be the existing slack which exists in these economies. One of the channels through which the process operates is for the resource sector and non-traded goods sectors to drain resources away from the non-resource traded-goods sectors thus increasing their costs of the basic factors of production. However with sufficient slack in the economy the resource and non-traded sectors can expand without competing away the factors in the manufacturing sector.[78] A similar outcome could also result if there is limited factor mobility between sectors.

Natural resource abundance can contribute to the development of manufacturing through its significant contribution to tax revenues. These tax "windfalls" could allow the government to lower taxes on other economic activities, thus improving the competitiveness of the manufacturing sector. In addition the revenues can finance education, infrastructure, and technological activities that would also increase the competitiveness of manufacturing. Russia, which is already on the scientific frontier in a

[77] Despite this recent growth, nevertheless manufacturing output in Russia remains significantly below its level in 1991.

[78] There remains of course the exchange rate channel.

number of scientific fields, could benefit greatly from an increased emphasis on linking its research institutes and universities more closely to its corporate sector.

In many ways the large amount of remittances which are being sent to Moldova have created a possible Dutch Disease effect for them; remittances amounted to 27 per cent of its GDP in 2004. Although these flows have perhaps kept the exchange rate higher than it would have been otherwise, there has been no significant real appreciation of its currency over the 2001-2004 period.

The most difficult development challenge is faced by the central Asian CIS. Although several have important natural resource endowments, these are unlikely to provide the extraordinary wealth of the energy-rich economies and can at best be considered as a marginal economic asset. Besides their current low levels of development, and their relatively small populations with low population density, their major economic handicap is likely to be their geographical location. Not only are they far away from the most important economic markets, although the rapid growth of India and China may significantly alter this, they are situated behind rugged terrain that will invariably result in high transport costs and are also far off the main trade routes, especially sea routes. The current institutional weakness in border and customs procedures only compounds what is already a significant natural disadvantage. These high transport costs are especially a disadvantage for manufacturing competitiveness given the global trend towards slicing the production process into smaller and smaller segments. The high costs of getting intermediate products there and getting their output to the next stage is likely to prove to be prohibitive for most manufacturing activities. It is not just the high financial costs of being relatively isolated but also the time factor which has been shown to have a very high cost equivalence. These high transport costs are likely not only to limit the establishment of manufacturing enterprises to begin with but also are likely to absorb a significant amount of the value-added involved with a given production process as valued by the world market. As a result, the wages that can be paid for any type of work are likely to be much lower for workers in these regions than elsewhere in the world. The tendency for the same transaction costs to absorb economic profit will keep global capital out as well. Redding and Schott (2003) argue that this process is especially detrimental to skill-intensive sectors and by lowering the return to skilled factors, it will also reduce the incentive for the population to invest in human capital accumulation. This endogenous effect on lowering educational achievement will only further compound the comparative disadvantage of these economies in manufacturing activities. The optimal policy response to this predicament has yet to be fully explored, but one would think trade facilitation activities including enhancing transportation infrastructure along with education subsidies would be warranted.

Lücke and Rothert (2006) provide some broad guidelines for identifying possible non-traditional export industries in the central Asia CIS. They recommend enhanced processing of local raw materials and increased geographical diversification to non-CIS markets of items currently exported within the CIS. The oil rich Kazakhstan and Azerbaijan are thought to have wage levels that are too high for these economies to compete in the global market for labor-intensive products.

Given the special and difficult situation of these countries, the traditional developmental policy advice may not prove to be applicable. The same may be the case for trade policy recommendations as the underlying situation may not resemble that of a labour-abundant country in a Heckscher-Ohlin world but may be better described by the core-periphery type of model where incentives to agglomerate limit the development of the periphery.[79] Thus the development strategy emphasizing privatization and liberalization may simply not be appropriate. A more general industrial policy perhaps combined with a customs union practicing some form of infant industry protection may need to be given more consideration; although the arguments against this type of approach are well developed and reasonably strong, the situation in the region may be unique.[80] Kreinin and Plummer

[79] A fundamental difference between these two models is that in the standard H-O neoclassical model there is a tendency towards income convergence while in the core-periphery model there is a tendency towards divergence.

[80] Even in successful economies where industrial policy was practiced, there remain questions as to whether it was a contributing ingredient of that success; for example, in the case of Korea, see Lee (1996).

(2002) argue that industrial development in a developing country may be considered as a collective consumption good that increases social welfare above that of the consumption of the products themselves. Combining this situation with a more complex set of assumptions regarding externalities, public goods and dynamics, it may be the case that some type of import substitution policy behind customs union might be justified, especially the situation of the Asian CIS. An examination of the economic consequences of other preferential arrangements shows that they generally increase trade amongst the members and in some cases have increased manufactures as well; this appears to be the case of MERCOSUR. The creation of this customs union allowed the members to develop production capacity in sectors where they had previously demonstrated no comparative advantage (Yeats, 1997). To the degree that production of capital-intensive manufactures is the final objective, then the agreement might be viewed as a success; but if measured by more standard welfare considerations this outcome might reflect trade diversion and thus may have been less than beneficial in a static welfare sense. It has likewise been argued that the creation of preferential trading arrangements significantly increased manufactures production, trade, and intra-industry trade amongst ASEAN members (Hurley, 2003), as well as those of the Central American Common Market (Willmore, 1972).

Support for a more "strategic" approach to trade liberalization is supported by Shafaedin (2005) who analyzed the economic performance of a sample of developing countries that have pursued trade liberalization and structural reforms since 1980 in order to expand exports, particularly of manufacturing sector goods. He found that 40 per cent of countries experienced rapid growth in manufactured goods exports, but only in a small number of countries (mostly East Asian economies) was this growth accompanied by industrial supply capacity increases and development. He argues that this can be explained by the fact that these countries gradually liberalized trade in select industries as part of a long-term industrial policy as opposed to the majority of the sample countries that pursued uniform liberalization and rapid structural reforms. Greenwald and Stiglitz (2006) also argue that the dynamic benefits of trade restrictions supporting the development of the industrial sector may outweigh the conventional static costs as productivity increases in this sector spill over into the other sectors. They argue for a protective uniform tariff for the whole industrial sector without attempting to pick specific industries for favourable treatment. When the economies are small and unable to achieve sufficient scale economies, they advocate the creation of a customs union with an external uniform tariff for the industrial sector. Thus for example, the creation of a CIS customs union, or several smaller ones for central Asia, the Caucasus, or the European CIS with protection for the industrial sector, would appear consistent with this approach.[81] After the industrial sector has reached a certain degree of maturity and the structure of GDP has shifted from the resource sector to the manufacturing sector, then gradual trade liberalization could be implemented.

Regardless of the overall merits of an industrial policy in promoting economic development, even those that support such initiatives recognize that one necessary ingredient for its success is efficient and honest government ministries. It is in this area that real practical objections can be raised about advocating industrial policies for the central Asian CIS. Until further institutional reform of the government sector can be implemented, the effects of any such policies are unlikely to be successful. One aspect of the Greenwald and Stiglitz proposal that makes it potentially applicable for these countries is the general level on which it is proposed to be implemented. By being implemented at a very general level a uniform tariff for the whole industrial sector avoids special treatment for selected industries and thus might eliminate much of the rent-seeking activities that have been found to be associated with such a policy.

[81] Clearly political problems limit their ability to implement this strategy.

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Appendix Table 1

Per Cent of Classified Trade under the SITC-R3 by Level of Disaggregation

Country		Imports				Exports			
		2-Digit	3-Digit	4-Digit	5-Digit	2-Digit	3-Digit	4-Digit	5-Digit
Armenia	Total Trade	100.0	100.0	89.9	64.8	100.0	100.0	99.9	90.1
	Manufactures		100.0	98.4	85.6		100.0	99.9	99.0
Azerbaijan	Total Trade	100.0	100.0	96.1	63.4	100.0	100.0	80.6	13.1
	Manufactures		100.0	98.1	78.9		100.0	99.0	90.6
Belarus	Total Trade	99.3	96.0	91.8	55.5	99.4	98.1	71.3	56.9
	Manufactures		95.7	90.9	80.9		98.1	93.3	81.5
Georgia	Total Trade	100.0	100.0	89.1	57.2	100.0	100.0	98.6	72.1
	Manufactures		100.0	98.7	76.6		100.0	99.8	66.0
Kazakhstan	Total Trade	100.0	100.0	90.9	17.2	100.0	100.0	92.0	10.5
	Manufactures		100.0	98.7	20.1		100.0	99.9	5.5
Kyrgyzstan	Total Trade	100.0	100.0	77.4	58.5	100.0	100.0	91.7	77.0
	Manufactures		100.0	97.6	84.1		100.0	99.6	89.3
Republic of Moldova	Total Trade	100.0	99.9	87.9	59.8	100.0	100.0	99.7	70.5
	Manufactures		100.0	98.5	81.5		100.0	99.1	62.6
Russian Federation	Total Trade	100.0	100.0	99.0	67.8	100.0	100.0	86.7	26.3
	Manufactures		100.0	98.9	77.8		100.0	87.2	75.5
Tajikistan	Total Trade	100.0	100.0	86.7	3.7	100.0	100.0	99.2	60.9
	Manufactures		100.0	99.4	6.6		100.0	100.0	24.7
Turkmenistan	Total Trade	99.9	99.9	97.3	74.4	99.9	99.9	79.5	6.6
	Manufactures		100.0	98.0	82.5		100.0	99.1	75.2
Ukraine	Total Trade	100.0	100.0	97.9	54.5	100.0	100.0	81.5	57.8
	Manufactures		100.0	99.4	84.0		100.0	81.0	67.0

Source: Compiled from official statistics of the United Nations Comtrade Database.
Notes: Values for 2004 except 2000 for Tajikistan and Turkmenistan.
Since manufactures can only be defined at the 2-digit level, there can be no missing manufactures at the 2-digit level.
Percentages greater than 99.95 but less than 100 are reported as 99.9.

Appendix Table 2.A

CIS Trade, 1998-2004 (in million $US)

Country	Imports							Exports						
	1998	1999	2000	2001	2002	2003	2004	1998	1999	2000	2001	2002	2003	2004
Armenia	*872*	811	840	*848*	945	1,235	1,302	*205*	232	294	*318*	383	670	712
Azerbaijan	1,076	1,036	1,172	1,431	1,666	2,626	3,516	606	929	1,745	2,314	2,167	2,592	3,615
Belarus	8,549	6,674	8,492	8,286	9,092	11,558	16,345	7,070	5,909	7,331	7,451	8,021	9,946	13,752
Georgia	880	603	651	679	793	1,141	1,847	192	238	330	320	346	465	649
Kazakhstan	4,293	3,639	5,033	6,356	*6,524*	8,409	12,636	5,207	5,871	8,789	8,620	*9,599*	12,927	19,939
Kyrgyzstan	844	600	*553*	*466*	579	717	*941*	514	454	*498*	*470*	460	582	*719*
Republic of Moldova	1,023	587	777	892	1,038	1,399	1,774	632	464	472	568	644	790	986
Russian Federation	58,996	40,429	45,453	41,528	42,103	57,415	75,030	74,160	74,663	103,008	100,653	100,364	133,717	180,915
Tajikistan	*678*	*633*	644	*656*	*687*	*841*	*1,312*	*526*	*608*	692	*575*	*650*	*703*	*807*
Turkmenistan	1,007	1,478	1,786	*2,340*	*2,112*	*2,503*	*3,308*	594	1,187	2,506	*2,620*	*2,856*	*3,632*	*3,870*
Ukraine	14,676	11,846	13,956	15,775	16,976	*23,020*	28,997	12,637	11,582	14,573	16,265	17,927	*23,060*	32,666
Uzbekistan	*3,125*	*3,000*	*2,850*	*2,812*	*2,425*	*2,662*	*3,365*	*3,218*	*3,200*	*3,230*	*2,704*	*2,513*	*3,189*	*4,077*

Source: Compiled from official statistics of the United Nations Comtrade Database; data for Uzbekistan from the IMF *Direction of Trade Statistics*.
Values in italics are estimates by the authors using BOP trade statistics.

Appendix Table 2.B

CIS Trade as a Percent of GDP, 1998-2004

Country	Imports							Exports						
	1998	1999	2000	2001	2002	2003	2004	1998	1999	2000	2001	2002	2003	2004
Armenia	52.8	49.8	50.5	46.1	46.6	50.0	42.5	19.0	20.8	23.4	25.5	29.4	32.2	27.4
Azerbaijan	54.5	41.9	38.4	37.3	50.0	65.5	53.8	22.7	28.0	40.2	41.5	42.8	42.0	34.7
Belarus	63.9	61.6	72.4	70.3	67.4	69.1	74.4	59.1	59.2	69.2	66.7	63.6	65.2	68.5
Georgia	37.1	38.1	39.9	39.0	42.4	46.4	47.5	16.5	19.1	23.1	24.6	29.2	31.8	31.1
Kazakhstan	34.9	40.1	48.4	47.1	46.3	42.6	46.0	30.3	42.5	57.0	46.2	47.2	48.7	55.1
Kyrgyzstan	58.0	57.0	47.6	37.0	43.3	45.3	52.6	36.5	42.2	41.8	36.7	39.6	38.7	42.8
Republic of Moldova	71.8	65.2	76.6	74.4	77.4	86.7	80.0	45.0	52.3	49.6	50.1	52.5	53.3	48.9
Russian Federation	24.6	26.2	24.1	24.2	24.4	23.8	22.1	31.3	43.3	44.1	36.9	35.2	35.2	34.7
Tajikistan	57.5	66.5	74.9	69.4	65.4	.	.	49.8	68.0	85.1	67.3	66.2	.	.
Turkmenistan	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Ukraine	44.2	48.8	57.4	53.8	50.7	55.2	53.6	41.9	54.3	62.4	55.5	55.1	57.8	61.1

Source: Compiled from official statistics of the United Nations Economic Commission for Europe Database; includes both merchandise and service trade.

Appendix Table 3.1

Armenia, 2000-2004
Geographical Distribution of Trade (Percent)

Groups	Total Imports			Manufacturing Imports			Total Exports			Manufacturing Exports		
	2000	2002	2004	2000	2002	2004	2000	2002	2004	2000	2002	2004
China	1.6	0.8	1.1	0.3	1.3	1.8	0.2	2.2	3.7	0.0	2.1	1.2
CIS-12	19.1	30.2	21.1	9.5	16.9	15.8	23.0	20.7	16.3	14.5	8.7	7.8
EU New Members-8 (a)	0.9	1.7	1.3	1.4	2.1	1.9	0.4	0.2	0.2	0.3	0.1	0.2
EU-17 (b)	36.3	26.6	34.5	45.2	37.7	37.4	36.7	36.5	35.4	49.3	35.5	42.0
NAFTA (c)	12.8	5.7	7.9	13.6	4.8	7.4	12.9	4.1	11.0	17.2	5.5	11.9
Other OECD (d)	3.7	1.4	4.2	4.7	1.9	3.3	7.0	2.7	6.8	3.8	0.6	3.6
Rest of the World	20.7	23.9	26.0	18.5	28.6	26.9	18.9	33.3	25.8	14.4	47.5	33.1
South-east Europe-8 (e)	4.9	9.6	3.9	6.8	6.6	5.6	0.9	0.2	0.9	0.5	0.0	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes:

a Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia
b EU 15 plus Cyprus and Malta
c Canada, Mexico, and the United States
d Australia, Iceland, Japan, New Zealand, Norway and Svalbard, Republic of Korea, Switzerland and Liechtenstein
e Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Romania, Serbia and Montenegro, The FYR of Macedonia, Turkey

Appendix Table 3.2

Azerbajan, 2000-2004
Geographical Distribution of Trade (Percent)

Groups	Total Imports			Manufacturing Imports			Total Exports			Manufacturing Exports		
	2000	2002	2004	2000	2002	2004	2000	2002	2004	2000	2002	2004
China	2.0	3.1	4.1	2.7	4.7	5.6	0.3	0.1	1.4	3.8	1.0	1.7
CIS-12	32.0	39.1	34.1	25.2	23.6	20.3	13.5	11.2	17.0	60.6	40.3	60.7
EU New Members-8 (a)	2.9	0.8	1.0	3.4	1.0	1.2	1.3	0.6	0.9	3.0	4.1	2.5
EU-17 (b)	19.4	23.6	32.9	23.9	33.1	42.8	61.8	68.9	50.0	8.5	12.1	3.3
NAFTA (c)	10.4	6.1	4.2	12.4	7.7	4.3	0.5	2.4	0.7	7.3	6.6	4.2
Other OECD (d)	7.8	6.5	7.6	10.0	8.8	10.0	4.6	1.0	0.2	4.0	1.2	0.7
Rest of the World	13.2	10.8	9.2	9.6	9.8	8.2	10.7	10.0	18.0	7.1	18.4	16.4
South-east Europe-8 (e)	12.4	10.0	6.8	12.7	11.4	7.6	7.4	5.7	11.8	5.7	16.2	10.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes:

a Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia
b EU 15 plus Cyprus and Malta
c Canada, Mexico, and the United States
d Australia, Iceland, Japan, New Zealand, Norway and Svalbard, Republic of Korea, Switzerland and Liechtenstein
e Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Romania, Serbia and Montenegro, The FYR of Macedonia, Turkey

Appendix Table 3.3

Belarus, 2000-2004
Geographical Distribution of Trade (Percent)

Groups	Total Imports			Manufacturing Imports			Total Exports			Manufacturing Exports		
	2000	2002	2004	2000	2002	2004	2000	2002	2004	2000	2002	2004
China	0.6	0.5	1.0	1.0	0.8	1.6	2.0	2.7	2.2	2.9	4.0	3.5
CIS-12	70.8	69.2	72.2	57.5	56.5	60.5	60.1	54.7	53.1	67.4	66.8	67.9
EU New Members-8 (a)	6.3	5.4	6.1	8.5	7.0	7.7	18.5	15.5	12.7	8.1	8.4	8.3
EU-17 (b)	15.2	16.3	13.7	24.7	25.8	21.3	9.5	18.0	24.0	9.3	9.1	8.9
NAFTA (c)	1.7	1.3	1.3	2.6	1.9	1.8	1.4	1.2	1.3	2.1	1.7	2.0
Other OECD (d)	1.5	1.3	1.3	2.3	1.8	1.7	0.7	0.6	0.4	1.1	0.8	0.6
Rest of the World	3.3	5.4	3.9	2.4	5.3	4.5	6.5	6.1	5.0	7.4	7.7	6.9
South-east Europe-8 (e)	0.6	0.6	0.5	1.0	0.9	0.8	1.2	1.2	1.4	1.7	1.4	1.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes:

a Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia
b EU 15 plus Cyprus and Malta
c Canada, Mexico, and the United States
d Australia, Iceland, Japan, New Zealand, Norway and Svalbard, Republic of Korea, Switzerland and Liechtenstein
e Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Romania, Serbia and Montenegro, The FYR of Macedonia, Turkey

Appendix Table 3.4

Georgia, 2000-2004
Geographical Distribution of Trade (Percent)

Groups	Total Imports			Manufacturing Imports			Total Exports			Manufacturing Exports		
	2000	2002	2004	2000	2002	2004	2000	2002	2004	2000	2002	2004
China	0.5	1.1	1.6	0.8	2.0	2.6	0.3	0.4	0.5	0.0	0.0	0.2
CIS-12	34.9	36.9	35.6	21.1	19.0	17.3	40.1	48.7	50.7	54.1	56.5	65.1
EU New Members-8 (a)	2.8	2.4	2.3	4.4	3.5	3.2	1.8	1.2	1.3	2.8	1.9	0.4
EU-17 (b)	24.4	26.5	31.0	37.8	38.6	45.8	21.7	17.1	15.9	15.0	13.7	17.1
NAFTA (c)	5.6	8.7	6.2	5.2	11.0	7.0	2.2	3.9	3.8	4.3	7.6	7.5
Other OECD (d)	5.0	3.2	2.2	4.1	3.6	2.3	4.2	7.7	3.0	0.5	6.7	0.7
Rest of the World	6.2	7.1	7.0	6.7	4.3	7.0	6.3	5.4	3.8	15.0	10.0	2.1
South-east Europe-8 (e)	20.6	14.1	14.0	19.9	18.0	14.8	23.4	15.6	21.0	8.4	3.7	7.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes:

a Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia
b EU 15 plus Cyprus and Malta
c Canada, Mexico, and the United States
d Australia, Iceland, Japan, New Zealand, Norway and Svalbard, Republic of Korea, Switzerland and Liechtenstein
e Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Romania, Serbia and Montenegro, The FYR of Macedonia, Turkey

Appendix Table 3.5

Kazakhstan, 2000-2004
Geographical Distribution of Trade (Percent)

Groups	Total Imports			Manufacturing Imports			Total Exports			Manufacturing Exports		
	2000	2003	2004	2000	2003	2004	2000	2003	2004	2000	2003	2004
China	3.2	6.2	6.0	3.6	7.0	6.8	7.9	12.8	9.7	21.9	24.4	20.0
CIS-12	54.2	46.7	47.5	48.3	40.4	39.1	26.6	23.1	20.2	22.6	29.6	32.2
EU New Members-8 (a)	3.1	3.2	4.1	3.7	3.7	4.9	2.4	3.2	2.7	1.9	2.1	2.1
EU-17 (b)	20.4	24.5	23.6	25.3	29.3	29.1	23.5	15.8	32.2	14.2	9.0	11.1
NAFTA (c)	6.1	6.3	5.2	7.0	7.3	6.1	2.5	0.8	2.5	6.0	2.8	1.4
Other OECD (d)	4.9	5.0	6.3	5.4	5.9	7.8	5.6	13.5	19.9	12.3	13.5	14.8
Rest of the World	4.9	5.0	4.1	2.9	2.8	2.3	30.8	29.4	11.3	18.6	18.2	17.9
South-east Europe-8 (e)	3.2	3.0	3.2	3.8	3.5	3.8	0.7	1.3	1.5	2.5	0.5	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes:

a Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia
b EU 15 plus Cyprus and Malta
c Canada, Mexico, and the United States
d Australia, Iceland, Japan, New Zealand, Norway and Svalbard, Republic of Korea, Switzerland and Liechtenstein
e Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Romania, Serbia and Montenegro, The FYR of Macedonia, Turkey

Appendix Table 3.6

Kyrgyzstan, 1999-2004
Geographical Distribution of Trade (Percent)

Groups	Total Imports			Manufacturing Imports			Total Exports			Manufacturing Exports		
	1999	2002	2004	1999	2002	2004	1999	2002	2004	1999	2002	2004
China	6.1	10.2	8.5	8.9	17.0	14.2	5.6	8.7	5.5	3.7	10.1	6.4
CIS-12	43.2	54.4	61.9	24.7	29.6	39.8	40.4	36.4	38.3	61.1	66.3	80.0
EU New Members-8 (a)	2.0	1.7	2.2	2.8	2.4	2.9	3.8	2.8	1.8	1.6	0.4	0.8
EU-17 (b)	18.3	13.2	10.5	26.5	21.1	17.5	38.2	2.5	2.1	15.2	6.4	3.5
NAFTA (c)	13.3	9.7	6.1	13.9	14.5	8.9	2.5	6.5	6.4	1.2	2.4	5.8
Other OECD (d)	7.0	3.0	4.3	10.8	4.9	6.7	4.1	21.2	14.2	0.7	0.8	0.1
Rest of the World	6.1	4.3	2.9	6.5	4.8	3.9	4.3	17.6	28.4	14.0	7.2	2.9
South-east Europe-8 (e)	4.0	3.5	3.7	5.8	5.6	6.1	1.1	4.2	3.2	2.5	6.3	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes:

a Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia
b EU 15 plus Cyprus and Malta
c Canada, Mexico, and the United States
d Australia, Iceland, Japan, New Zealand, Norway and Svalbard, Republic of Korea, Switzerland and Liechtenstein
e Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Romania, Serbia and Montenegro, The FYR of Macedonia, Turkey

Appendix Table 3.7

Republic of Moldova, 2000-2004
Geographical Distribution of Trade (Percent)

Groups	Total Imports			Manufacturing Imports			Total Exports			Manufacturing Exports		
	2000	2002	2004	2000	2002	2004	2000	2002	2004	2000	2002	2004
China	0.4	1.2	2.1	0.7	1.6	3.2	0.2	0.2	0.0	0.6	0.6	0.0
CIS-12	33.6	39.4	43.3	19.1	25.2	28.0	58.5	54.4	51.0	32.8	26.0	26.0
EU New Members-8 (a)	6.9	7.9	6.9	8.9	10.5	8.6	4.6	4.2	3.2	3.5	2.6	1.6
EU-17 (b)	29.0	26.4	25.9	42.2	38.5	37.0	21.8	22.4	27.0	42.2	46.2	43.9
NAFTA (c)	6.3	4.7	1.8	9.5	3.9	1.3	3.8	6.4	4.4	9.3	10.3	8.6
Other OECD (d)	1.9	1.9	2.3	2.8	2.5	3.4	0.2	0.4	0.1	0.1	0.3	0.3
Rest of the World	2.0	4.3	2.6	2.6	3.4	2.7	1.7	1.7	2.4	1.4	1.1	2.9
South-east Europe-8 (e)	19.8	14.2	15.1	14.1	14.5	15.8	9.2	10.3	12.0	10.0	13.0	16.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes:
a Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia
b EU 15 plus Cyprus and Malta
c Canada, Mexico, and the United States
d Australia, Iceland, Japan, New Zealand, Norway and Svalbard, Republic of Korea, Switzerland and Liechtenstein
e Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Romania, Serbia and Montenegro, The FYR of Macedonia, Turkey

Appendix Table 3.8

Russian Federation, 2000-2004
Geographical Distribution of Trade (Percent)

Groups	Total Imports			Manufacturing Imports			Total Exports			Manufacturing Exports		
	2000	2002	2004	2000	2002	2004	2000	2002	2004	2000	2002	2004
China	2.1	5.7	6.3	3.9	6.9	8.2	5.2	5.4	4.8	12.3	14.0	9.6
CIS-12	25.6	14.2	22.5	17.4	9.4	10.7	13.4	10.8	14.7	14.0	18.5	21.3
EU New Members-8 (a)	4.6	7.9	7.3	8.5	8.9	8.6	15.3	13.4	8.5	13.1	8.4	6.6
EU-17 (b)	24.6	43.4	37.6	48.4	51.5	47.3	37.5	36.2	31.7	25.4	20.4	22.6
NAFTA (c)	6.5	7.7	4.8	9.2	8.2	5.3	4.7	3.2	3.4	7.4	5.5	7.9
Other OECD (d)	3.5	6.6	9.7	6.8	8.3	12.9	7.6	6.3	5.8	3.4	4.4	3.8
Rest of the World	31.6	11.8	9.3	3.3	3.9	4.2	11.2	19.3	26.4	18.9	23.4	22.2
South-east Europe-8 (e)	1.5	2.6	2.5	2.5	2.9	2.8	5.0	5.3	4.6	5.6	5.4	6.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes:
a Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia
b EU 15 plus Cyprus and Malta
c Canada, Mexico, and the United States
d Australia, Iceland, Japan, New Zealand, Norway and Svalbard, Republic of Korea, Switzerland and Liechtenstein
e Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Romania, Serbia and Montenegro, The FYR of Macedonia, Turkey

Appendix Table 3.9

Tajikistan, 2000
Geographical Distribution of Trade (Percent)

Groups	Total Imports	Manufacturing Imports	Total Exports	Manufacturing Exports
	2000	2000	2000	2000
China	.	.	.	.
CIS-12	86.7	75.4	54.0	64.1
EU New Members-8 (a)	1.9	2.7	3.7	2.2
EU-17 (b)	4.5	8.5	31.5	32.3
NAFTA (c)	0.3	0.6	0.1	0.1
Other OECD (d)	0.1	0.3	10.4	.
Rest of the World	0.1	0.1	0.2	1.2
South-east Europe-8 (e)	6.4	12.4	0.1	0.1
Total	100.0	100.0	100.0	100.0

Notes:
a Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia
b EU 15 plus Cyprus and Malta
c Canada, Mexico, and the United States
d Australia, Iceland, Japan, New Zealand, Norway and Svalbard, Republic of Korea, Switzerland and Liechtenstein
e Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Romania, Serbia and Montenegro, The FYR of Macedonia, Turkey

Appendix Table 3.10

Turkmenistan, 1999-2000
Geographical Distribution of Trade (Percent)

Groups	Total Imports		Manufacturing Imports		Total Exports		Manufacturing Exports	
	1999	2000	1999	2000	1999	2000	1999	2000
China	0.9	0.9	0.8	0.9	0.4	0.3	0.3	0.8
CIS-12	33.8	38.0	38.4	41.8	41.2	52.4	32.7	24.7
EU New Members-8 (a)	1.8	4.1	1.5	2.8	1.6	0.3	1.6	0.7
EU-17 (b)	13.7	9.0	17.1	10.4	12.7	18.6	3.0	2.7
NAFTA (c)	4.5	3.5	5.8	2.8	0.8	0.5	0.7	4.6
Other OECD (d)	5.0	8.4	7.1	10.4	5.6	3.7	0.3	0.0
Rest of the World	22.5	21.6	14.0	15.2	26.8	16.3	8.8	12.6
South-east Europe-8 (e)	17.7	14.5	15.3	15.8	10.9	7.9	52.7	54.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes:
a Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia
b EU 15 plus Cyprus and Malta
c Canada, Mexico, and the United States
d Australia, Iceland, Japan, New Zealand, Norway and Svalbard, Republic of Korea, Switzerland and Liechtenstein
e Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Romania, Serbia and Montenegro, The FYR of Macedonia, Turkey

Appendix Table 3.11

Ukraine, 2000-2004
Geographical Distribution of Trade (Percent)

Groups	Total Imports			Manufacturing Imports			Total Exports			Manufacturing Exports		
	2000	2002	2004	2000	2002	2004	2000	2002	2004	2000	2002	2004
China	1.0	1.5	2.6	1.9	2.9	4.4	4.0	3.9	2.9	6.0	5.5	3.8
CIS-12	57.5	52.7	50.9	31.3	25.4	27.0	30.7	24.1	26.0	31.6	24.8	26.0
EU New Members-8 (a)	7.3	8.0	8.8	11.4	13.3	14.3	10.1	11.3	11.1	6.5	8.9	9.1
EU-17 (b)	21.9	24.2	22.9	40.2	42.7	39.3	19.3	21.7	18.6	14.9	16.7	18.1
NAFTA (c)	2.7	2.9	2.1	4.3	4.9	3.0	5.7	3.3	5.4	7.3	3.5	6.3
Other OECD (d)	3.2	3.4	3.6	5.4	5.4	5.9	2.4	2.5	2.9	1.6	1.4	2.0
Rest of the World	4.3	5.3	7.2	2.9	2.9	3.1	17.3	22.1	22.4	21.7	27.1	25.3
South-east Europe-8 (e)	2.1	1.9	2.0	2.5	2.7	3.0	10.5	11.1	10.7	10.3	12.2	9.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes:

a Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia
b EU 15 plus Cyprus and Malta
c Canada, Mexico, and the United States
d Australia, Iceland, Japan, New Zealand, Norway and Svalbard, Republic of Korea, Switzerland and Liechtenstein
e Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Romania, Serbia and Montenegro, The FYR of Macedonia, Turkey

Appendix Table 4.1

Armenia, 2000-2004
The Growth and Sectoral Distribution of Trade
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		Share of Total Imports in 2004	Annual Growth Rate of Imports 2000-2004	Share of Total Exports in 2004	Annual Growth Rate of Exports 2000-2004
0	Food And Live Animals	16.0	4.8	2.8	51.0
1	Beverages And Tobacco	3.6	22.5	8.6	26.8
2	Crude Materials, Inedible	1.2	13.8	13.6	19.5
3	Fuels, Lubricants, Etc.	15.9	4.4	2.8	-1.0
4	Animal, Veg Oils, Fats	1.5	8.5	0.0	.
5	Chemicals	7.5	2.0	0.3	-10.9
6	Manufactured Goods	27.3	19.5	51.6	30.0
7	Machines, Transport Equip.	14.5	11.2	3.4	-5.7
8	Misc. Manufactured Articles	6.8	17.4	10.8	30.7
9	Goods Not Classed By Kind	5.5	56.3	6.1	47.1
	Total Manufactures(5-8minus 68)	55.7	14.0	59.4	24.9
	All Commodities	100.0	11.6	100.0	24.7

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 4.2

Azerbaijan, 2000-2004
The Growth and Sectoral Distribution of Trade
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		Share of Total Imports in 2004	Annual Growth Rate of Imports 2000-2004	Share of Total Exports in 2004	Annual Growth Rate of Exports 2000-2004
0	Food And Live Animals	9.9	16.4	2.7	29.9
1	Beverages And Tobacco	0.9	14.2	0.5	-1.7
2	Crude Materials, Inedible	2.9	15.0	2.6	2.9
3	Fuels, Lubricants, Etc.	11.4	62.8	82.2	18.9
4	Animal, Veg Oils, Fats	0.9	34.6	1.1	83.5
5	Chemicals	5.0	17.1	2.5	27.7
6	Manufactured Goods	22.4	40.0	3.1	60.9
7	Machines, Transport Equip.	37.8	29.7	4.5	26.9
8	Misc. Manufactured Articles	8.7	44.0	0.3	11.3
9	Goods Not Classed By Kind	0.1	.	0.5	.
	Total Manufactures(5-8minus 68)	73.6	32.7	9.1	30.8
	All Commodities	100.0	31.6	100.0	20.0

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 4.3

Belarus, 2000-2004
The Growth and Sectoral Distribution of Trade
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		Share of Total Imports in 2004	Annual Growth Rate of Imports 2000-2004	Share of Total Exports in 2004	Annual Growth Rate of Exports 2000-2004
0	Food And Live Animals	8.1	12.9	7.6	23.8
1	Beverages And Tobacco	1.3	14.9	0.6	17.2
2	Crude Materials, Inedible	3.6	13.4	3.7	13.8
3	Fuels, Lubricants, Etc.	27.7	15.0	26.9	26.3
4	Animal, Veg Oils, Fats	0.9	18.2	0.2	72.0
5	Chemicals	10.0	12.6	10.9	12.1
6	Manufactured Goods	19.7	19.3	18.2	15.0
7	Machines, Transport Equip.	23.1	27.4	22.1	14.7
8	Misc. Manufactured Articles	4.7	20.1	9.0	12.9
9	Goods Not Classed By Kind	0.9	3.3	0.8	-11.6
	Total Manufactures(5-8minus 68)	55.6	21.0	59.9	14.0
	All Commodities	100.0	17.8	100.0	17.0

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 4.4

Georgia, 2000-2004
The Growth and Sectoral Distribution of Trade
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		Share of Total Imports in 2004	Annual Growth Rate of Imports 2000-2004	Share of Total Exports in 2004	Annual Growth Rate of Exports 2000-2004
0	Food And Live Animals	17.2	30.4	15.1	26.4
1	Beverages And Tobacco	2.6	8.2	15.8	18.5
2	Crude Materials, Inedible	0.9	25.9	26.2	14.6
3	Fuels, Lubricants, Etc.	17.3	23.3	3.5	-4.7
4	Animal, Veg Oils, Fats	1.1	83.8	0.1	196.2
5	Chemicals	9.9	29.2	6.8	6.6
6	Manufactured Goods	15.0	41.9	9.7	21.2
7	Machines, Transport Equip.	26.7	29.9	18.7	30.3
8	Misc. Manufactured Articles	9.2	34.7	1.2	-0.9
9	Goods Not Classed By Kind	0.0	25.6	2.9	.
	Total Manufactures(5-8minus 68)	60.6	33.1	36.3	21.4
	All Commodities	100.0	29.8	100.0	18.4

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 4.5

Kazakhstan, 2000-2004
The Growth and Sectoral Distribution of Trade
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		Share of Total Imports in 2004	Annual Growth Rate of Imports 2000-2004	Share of Total Exports in 2004	Annual Growth Rate of Exports 2000-2004
0	Food And Live Animals	5.7	20.0	3.8	7.0
1	Beverages And Tobacco	1.1	19.8	0.2	11.6
2	Crude Materials, Inedible	1.9	13.8	6.1	16.9
3	Fuels, Lubricants, Etc.	13.4	31.6	64.7	29.6
4	Animal, Veg Oils, Fats	0.3	2.2	0.1	85.9
5	Chemicals	9.5	19.0	2.5	22.7
6	Manufactured Goods	20.5	29.4	18.0	11.3
7	Machines, Transport Equip.	41.1	27.7	3.5	38.8
8	Misc. Manufactured Articles	6.3	21.0	0.2	-3.4
9	Goods Not Classed By Kind	0.0	-35.4	0.9	3.0
	Total Manufactures(5-8minus 68)	76.8	26.5	15.3	18.0
	All Commodities	100.0	25.9	100.0	22.7

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 4.6

Kyrgyzstan, 1999-2004
The Growth and Sectoral Distribution of Trade
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		Share of Total Imports in 2004	Annual Growth Rate of Imports 1999-2004	Share of Total Exports in 2004	Annual Growth Rate of Exports 1999-2004
0	Food And Live Animals	8.6	9.0	8.7	21.1
1	Beverages And Tobacco	3.7	21.7	2.3	-18.6
2	Crude Materials, Inedible	3.2	8.5	10.8	8.5
3	Fuels, Lubricants, Etc.	27.2	16.1	11.3	8.7
4	Animal, Veg Oils, Fats	1.2	14.5	0.0	-35.2
5	Chemicals	14.6	15.8	3.1	7.9
6	Manufactured Goods	16.0	14.9	10.9	30.3
7	Machines, Transport Equip.	19.1	-0.3	7.2	2.9
8	Misc. Manufactured Articles	6.3	-0.9	5.9	22.6
9	Goods Not Classed By Kind	.	.	40.0	9.4
	Total Manufactures(5-8minus 68)	55.0	6.1	25.8	15.2
	All Commodities	100.0	9.4	100.0	9.6

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 4.7

Moldova, 2000-2004
The Growth and Sectoral Distribution of Trade
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		Share of Total Imports in 2004	Annual Growth Rate of Imports 2000-2004	Share of Total Exports in 2004	Annual Growth Rate of Exports 2000-2004
0	Food And Live Animals	8.2	38.2	17.4	14.4
1	Beverages And Tobacco	2.8	(3.8)	29.1	16.0
2	Crude Materials, Inedible	6.2	46.9	11.8	28.7
3	Fuels, Lubricants, Etc.	20.9	10.1	1.6	146.9
4	Animal, Veg Oils, Fats	0.4	33.7	4.2	80.2
5	Chemicals	12.0	24.8	1.0	3.6
6	Manufactured Goods	22.7	29.4	6.9	20.3
7	Machines, Transport Equip.	18.3	30.8	6.3	20.8
8	Misc. Manufactured Articles	8.4	26.5	21.7	22.6
9	Goods Not Classed By Kind	0.0	8.3	.	.
	Total Manufactures(5-8minus 68)	60.9	28.5	35.8	21.0
	All Commodities	100.0	22.9	100.0	20.3

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 4.8

Russia, 2000-2004
The Growth and Sectoral Distribution of Trade
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		Share of Total Imports in 2004	Annual Growth Rate of Imports 2000-2004	Share of Total Exports in 2004	Annual Growth Rate of Exports 2000-2004
0	Food And Live Animals	13.2	17	1.1	21.7
1	Beverages And Tobacco	2.5	13.7	0.1	34.4
2	Crude Materials, Inedible	4.3	6.8	4.8	16.7
3	Fuels, Lubricants, Etc.	2.4	4.9	50.2	14.5
4	Animal, Veg Oils, Fats	0.8	12.3	0.1	7.2
5	Chemicals	11.8	22.8	4.4	12.4
6	Manufactured Goods	13.4	21	16.4	12.8
7	Machines, Transport Equip.	35.7	36.5	4.9	10
8	Misc. Manufactured Articles	7.7	24.1	1.1	-5.2
9	Goods Not Classed By Kind	8.2	-21.2	16.9	24.8
	Total Manufactures(5-8minus 68)	67.9	29.2	21.0	12.5
	All Commodities	100	13.3	100	15.1

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 4.9

Tajikistan, 2000
The Growth and Sectoral Distribution of Trade
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		Share of Total Imports in 2000	Annual Growth Rate of Imports	Share of Total Exports in 2000	Annual Growth Rate of Exports
0	Food And Live Animals	9.2	.	3.2	.
1	Beverages And Tobacco	0.1	.	0.8	.
2	Crude Materials, Inedible	0.8	.	12.5	.
3	Fuels, Lubricants, Etc.	37.5	.	13.3	.
4	Animal, Veg Oils, Fats	1.0	.	0.0	.
5	Chemicals	36.4	.	1.4	.
6	Manufactured Goods	4.1	.	56.5	.
7	Machines, Transport Equip.	9.6	.	7.8	.
8	Misc. Manufactured Articles	1.2	.	0.8	.
9	Goods Not Classed By Kind	0.2	.	3.6	.
	Total Manufactures(5-8minus 68)	51.3		12.8	
	All Commodities	100.0	.	100.0	.

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 4.10

Turkmenistan, 1999-2000
The Growth and Sectoral Distribution of Trade
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		Share of Total Imports in 2000	Annual Growth Rate of Imports 1999-2000	Share of Total Exports in 2000	Annual Growth Rate of Exports 1999-2000
0	Food And Live Animals	10.1	5.8	0.2	-12.8
1	Beverages And Tobacco	1.4	-73.8	0.0	48.6
2	Crude Materials, Inedible	0.8	28.2	10.3	10.3
3	Fuels, Lubricants, Etc.	1.2	-64.3	81.0	166.6
4	Animal, Veg Oils, Fats	0.2	-50.6	0.1	1521.6
5	Chemicals	8.9	6.0	0.4	51.2
6	Manufactured Goods	21.4	33.5	4.3	5.6
7	Machines, Transport Equip.	43.8	61.7	0.6	-17.2
8	Misc. Manufactured Articles	6.2	-4.3	1.6	145.0
9	Goods Not Classed By Kind	5.9	9.7	1.5	-12.6
	Total Manufactures(5-8minus 68)	79.8	38.0	6.9	21.3
	All Commodities	100.0	20.8	100.0	111.1

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 4.11

Ukraine, 2000-2004
The Growth and Sectoral Distribution of Trade
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		Share of Total Imports in 2004	Annual Growth Rate of Imports 2000-2004	Share of Total Exports in 2004	Annual Growth Rate of Exports 2000-2004
0	Food And Live Animals	4.7	20.9	7.4	31.3
1	Beverages And Tobacco	1.2	16.4	0.9	30.0
2	Crude Materials, Inedible	3.8	9.5	6.9	5.0
3	Fuels, Lubricants, Etc.	33.6	12.9	10.4	43.3
4	Animal, Veg Oils, Fats	0.4	29.2	1.7	22.8
5	Chemicals	10.6	25.8	8.7	21.4
6	Manufactured Goods	13.7	22.1	42.2	20.0
7	Machines, Transport Equip.	25.3	31.6	15.5	29.6
8	Misc. Manufactured Articles	4.1	24.1	5.2	26.5
9	Goods Not Classed By Kind	2.7	19.8	1.1	0.9
	Total Manufactures(5-8minus 68)	52.3	27.5	70.3	23.8
	All Commodities	100.0	20.1	100.0	22.4

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 5.1

Armenia, 2000-2004
The Factor Intensity of Exports, Distribution and Growth by Region

Factor Intensity Category by Aggregated Region	Share of Total Exports in 2000	Share of Manufactured Exports in 2000	Share of Total Exports in 2004	Share of Manufactured Exports in 2004	Annual Growth Rate of Exports 2000-2004
Exports to the World					
High Skill, Technology, Capital, Scale Intensive	2.4	4.1	2.0	3.3	18.5
Medium Skill, Technology, Capital, Scale Intensive	10.2	17.3	2.8	4.8	-9.5
Low Skill, Technology, Capital, Scale Intensive	3.4	5.7	11.2	18.8	68.1
Labour Intensive and Resource Intensive	43.1	72.9	43.5	73.1	25.0
Non-manufactures	40.8		40.6		24.5
Exports to the other CIS					
High Skill, Technology, Capital, Scale Intensive	7.3	19.7	5.8	20.2	7.7
Medium Skill, Technology, Capital, Scale Intensive	19.6	52.4	10.4	36.5	-2.2
Low Skill, Technology, Capital, Scale Intensive	1.2	3.3	1.9	6.5	27.0
Labour Intensive and Resource Intensive	9.2	24.6	10.6	36.9	18.5
Non-manufactures	62.7		71.4		18.2
Exports to the Rest of the World					
High Skill, Technology, Capital, Scale Intensive	1.0	1.5	1.2	1.9	35.8
Medium Skill, Technology, Capital, Scale Intensive	7.5	11.3	1.4	2.1	-16.7
Low Skill, Technology, Capital, Scale Intensive	4.0	6.1	13.0	19.8	70.6
Labour Intensive and Resource Intensive	53.3	81.1	49.9	76.2	25.3
Non-manufactures	34.3		34.6		27.7

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.
Source: Compiled from official statistics of the United Nations Comtrade database.

Appendix Table 5.2

Azerbaijan, 2000-2004
The Factor Intensity of Exports, Distribution and Growth by Region

Factor Intensity Category by Aggregated Region	Share of Total Exports in 2000	Share of Manufactured Exports in 2000	Share of Total Exports in 2004	Share of Manufactured Exports in 2004	Annual Growth Rate of Exports 2000-2004
Exports to the World					
High Skill, Technology, Capital, Scale Intensive	2.4	36.6	2.7	30.2	24.6
Medium Skill, Technology, Capital, Scale Intensive	1.8	28.3	0.7	7.3	-6.9
Low Skill, Technology, Capital, Scale Intensive	1.8	27.7	5.2	57.0	56.7
Labour Intensive and Resource Intensive	0.5	7.4	0.5	5.5	21.8
Non-manufactures	93.6		90.9		19.1
Exports to the other CIS					
High Skill, Technology, Capital, Scale Intensive	6.9	23.9	4.8	14.7	15.8
Medium Skill, Technology, Capital, Scale Intensive	8.7	29.8	1.9	5.8	-13.0
Low Skill, Technology, Capital, Scale Intensive	12.1	41.7	23.5	72.2	50.1
Labour Intensive and Resource Intensive	1.3	4.6	2.4	7.3	46.5
Non-manufactures	71.0		67.4		25.5
Exports to the Rest of the World					
High Skill, Technology, Capital, Scale Intensive	1.6	56.2	2.3	54.1	29.5
Medium Skill, Technology, Capital, Scale Intensive	0.8	26.0	0.4	9.5	1.7
Low Skill, Technology, Capital, Scale Intensive	0.2	6.2	1.4	33.5	99.6
Labour Intensive and Resource Intensive	0.3	11.6	0.1	2.9	-7.9
Non-manufactures	97.1		95.7		18.3

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.
Source: Compiled from official statistics of the United Nations Comtrade database.

Appendix Table 5.3

Belarus, 2000-2004
The Factor Intensity of Exports, Distribution and Growth by Region

Factor Intensity Category by Aggregated Region	Share of Total Exports in 2000	Share of Manufactured Exports in 2000	Share of Total Exports in 2004	Share of Manufactured Exports in 2004	Annual Growth Rate of Exports 2000-2004
Exports to the World					
High Skill, Technology, Capital, Scale Intensive	16.0	24.1	13.4	22.3	11.9
Medium Skill, Technology, Capital, Scale Intensive	24.0	36.0	21.4	35.7	13.8
Low Skill, Technology, Capital, Scale Intensive	8.5	12.7	10.3	17.2	23.0
Labour Intensive and Resource Intensive	18.1	27.2	14.8	24.7	11.4
Non-manufactures	33.5		40.1		22.4
Exports to the other CIS					
High Skill, Technology, Capital, Scale Intensive	10.8	14.4	9.0	11.7	8.4
Medium Skill, Technology, Capital, Scale Intensive	34.7	46.5	35.4	46.1	14.0
Low Skill, Technology, Capital, Scale Intensive	8.2	11.0	12.3	16.1	25.7
Labour Intensive and Resource Intensive	20.9	28.1	20.0	26.1	12.2
Non-manufactures	25.4		23.3		11.0
Exports to the Rest of the World					
High Skill, Technology, Capital, Scale Intensive	23.9	44.0	18.3	44.8	14.0
Medium Skill, Technology, Capital, Scale Intensive	7.7	14.3	5.6	13.8	12.5
Low Skill, Technology, Capital, Scale Intensive	8.9	16.3	8.0	19.6	18.9
Labour Intensive and Resource Intensive	13.8	25.4	8.9	21.8	9.4
Non-manufactures	45.7		59.1		30.0

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.
Source: Compiled from official statistics of the United Nations Comtrade database.

Appendix Table 5.4

Georgia, 2000-2004
The Factor Intensity of Exports, Distribution and Growth by Region

Factor Intensity Category by Aggregated Region	Share of Total Exports in 2000	Share of Manufactured Exports in 2000	Share of Total Exports in 2004	Share of Manufactured Exports in 2004	Annual Growth Rate of Exports 2000-2004
Exports to the World					
High Skill, Technology, Capital, Scale Intensive	14.1	42.9	20.5	56.5	30.0
Medium Skill, Technology, Capital, Scale Intensive	8.3	25.4	4.7	12.9	2.5
Low Skill, Technology, Capital, Scale Intensive	7.1	21.5	9.0	24.7	25.6
Labour Intensive and Resource Intensive	3.3	10.1	2.1	5.9	6.1
Non-manufactures	67.2		63.7		16.9
Exports to the other CIS					
High Skill, Technology, Capital, Scale Intensive	18.0	40.6	31.6	67.9	44.6
Medium Skill, Technology, Capital, Scale Intensive	13.6	30.6	4.9	10.5	-2.6
Low Skill, Technology, Capital, Scale Intensive	7.5	16.8	7.4	15.9	25.4
Labour Intensive and Resource Intensive	5.3	12.0	2.6	5.7	5.4
Non-manufactures	55.7		53.5		24.3
Exports to the Rest of the World					
High Skill, Technology, Capital, Scale Intensive	11.5	45.7	9.1	35.3	6.3
Medium Skill, Technology, Capital, Scale Intensive	4.9	19.3	4.4	17.3	10.4
Low Skill, Technology, Capital, Scale Intensive	6.8	27.1	10.5	41.0	25.8
Labour Intensive and Resource Intensive	2.0	7.9	1.6	6.3	7.3
Non-manufactures	74.8		74.3		12.6

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.
Source: Compiled from official statistics of the United Nations Comtrade database.

Appendix Table 5.5

Kazakhstan, 2000-2004
The Factor Intensity of Exports, Distribution and Growth by Region

Factor Intensity Category by Aggregated Region	Share of Total Exports in 2000	Share of Manufactured Exports in 2000	Share of Total Exports in 2004	Share of Manufactured Exports in 2004	Annual Growth Rate of Exports 2000-2004
Exports to the World					
High Skill, Technology, Capital, Scale Intensive	3.3	18.7	2.9	18.7	18.1
Medium Skill, Technology, Capital, Scale Intensive	1.5	8.4	3.2	21.0	48.5
Low Skill, Technology, Capital, Scale Intensive	12.7	70.7	8.4	55.0	10.8
Labour Intensive and Resource Intensive	0.4	2.3	0.8	5.3	45.8
Non-manufactures	82.1		84.7		23.7
Exports to the other CIS					
High Skill, Technology, Capital, Scale Intensive	5.0	33.0	8.8	35.8	31.7
Medium Skill, Technology, Capital, Scale Intensive	3.6	23.4	9.2	37.5	45.1
Low Skill, Technology, Capital, Scale Intensive	5.9	38.9	5.9	24.1	14.4
Labour Intensive and Resource Intensive	0.7	4.6	0.6	2.6	11.0
Non-manufactures	84.8		75.5		11.2
Exports to the Rest of the World					
High Skill, Technology, Capital, Scale Intensive	2.7	14.5	1.4	10.6	5.6
Medium Skill, Technology, Capital, Scale Intensive	0.8	4.0	1.7	13.2	53.8
Low Skill, Technology, Capital, Scale Intensive	15.1	79.9	9.1	69.6	10.3
Labour Intensive and Resource Intensive	0.3	1.6	0.9	6.6	63.1
Non-manufactures	81.1		87.0		27.6

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.
Source: Compiled from official statistics of the United Nations Comtrade database.

Appendix Table 5.6

Kyrgyzstan, 1999-2004
The Factor Intensity of Exports, Distribution and Growth by Region

Factor Intensity Category by Aggregated Region	Share of Total Exports in 1999	Share of Manufactured Exports in 1999	Share of Total Exports in 2004	Share of Manufactured Exports in 2004	Annual Growth Rate of Exports 1999-2004
Exports to the World					
High Skill, Technology, Capital, Scale Intensive	4.1	20.5	3.5	13.4	5.8
Medium Skill, Technology, Capital, Scale Intensive	9.9	49.2	8.6	33.2	6.5
Low Skill, Technology, Capital, Scale Intensive	0.9	4.6	0.8	3.2	7.3
Labour Intensive and Resource Intensive	5.2	25.7	12.9	50.1	31.7
Non-manufactures	79.8		74.2		8.0
Exports to the other CIS					
High Skill, Technology, Capital, Scale Intensive	2.5	8.1	2.2	4.1	6.0
Medium Skill, Technology, Capital, Scale Intensive	18.2	59.6	19.2	35.7	9.7
Low Skill, Technology, Capital, Scale Intensive	1.8	5.9	1.3	2.5	2.2
Labour Intensive and Resource Intensive	8.1	26.5	31.1	57.7	42.1
Non-manufactures	69.5		46.1		0.0
Exports to the Rest of the World					
High Skill, Technology, Capital, Scale Intensive	5.3	40.1	4.3	51.0	5.7
Medium Skill, Technology, Capital, Scale Intensive	4.3	32.9	1.9	23.2	-6.0
Low Skill, Technology, Capital, Scale Intensive	0.3	2.6	0.5	6.3	20.4
Labour Intensive and Resource Intensive	3.2	24.4	1.6	19.5	-3.6
Non-manufactures	86.8		91.7		11.6

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.
Source: Compiled from official statistics of the United Nations Comtrade database.

Appendix Table 5.7

Moldova, 2000-2004
The Factor Intensity of Exports, Distribution and Growth by Region

Factor Intensity Category by Aggregated Region	Share of Total Exports in 2000	Share of Manufactured Exports in 2000	Share of Total Exports in 2004	Share of Manufactured Exports in 2004	Annual Growth Rate of Exports 2000-2004
Exports to the World					
High Skill, Technology, Capital, Scale Intensive	3.7	10.7	2.7	7.5	10.8
Medium Skill, Technology, Capital, Scale Intensive	5.3	15.1	5.6	15.7	22.1
Low Skill, Technology, Capital, Scale Intensive	1.9	5.6	3.1	8.7	35.4
Labour Intensive and Resource Intensive	24.0	68.6	24.4	68.1	20.8
Non-manufactures	65.1		64.2		19.8
Exports to the other CIS					
High Skill, Technology, Capital, Scale Intensive	3.8	19.4	2.8	15.3	7.5
Medium Skill, Technology, Capital, Scale Intensive	6.8	34.6	7.6	41.3	19.3
Low Skill, Technology, Capital, Scale Intensive	2.4	12.2	1.9	10.4	9.9
Labour Intensive and Resource Intensive	6.6	33.7	6.0	33.0	13.5
Non-manufactures	80.4		81.7		16.7
Exports to the Rest of the World					
High Skill, Technology, Capital, Scale Intensive	3.6	6.5	2.6	4.8	15.2
Medium Skill, Technology, Capital, Scale Intensive	3.2	5.6	3.6	6.7	29.7
Low Skill, Technology, Capital, Scale Intensive	1.3	2.3	4.4	8.1	69.1
Labour Intensive and Resource Intensive	48.4	85.6	43.5	80.4	22.0
Non-manufactures	43.5		45.9		27.1

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.
Source: Compiled from official statistics of the United Nations Comtrade database.

Appendix Table 5.8

Russia, 2000-2004
The Factor Intensity of Exports, Distribution and Growth by Region

Factor Intensity Category by Aggregated Region	Share of Total Exports in 2000	Share of Manufactured Exports in 2000	Share of Total Exports in 2004	Share of Manufactured Exports in 2004	Annual Growth Rate of Exports 2000-2004
Exports to the World					
High Skill, Technology, Capital, Scale Intensive	6.4	27.7	5.8	27.4	12.2
Medium Skill, Technology, Capital, Scale Intensive	4.4	19.3	3.8	18.1	10.7
Low Skill, Technology, Capital, Scale Intensive	8.9	38.7	9.4	44.8	16.7
Labour Intensive and Resource Intensive	3.3	14.3	2.0	9.7	2.0
Non-manufactures	77.0		79.0		15.9
Exports to the other CIS					
High Skill, Technology, Capital, Scale Intensive	4.9	20.5	5.9	19.4	23.2
Medium Skill, Technology, Capital, Scale Intensive	11.0	46.0	13.2	43.5	23.3
Low Skill, Technology, Capital, Scale Intensive	4.8	20.0	7.4	24.5	31.4
Labour Intensive and Resource Intensive	3.2	13.4	3.8	12.6	23.1
Non-manufactures	76.0		69.7		15.4
Exports to the Rest of the World					
High Skill, Technology, Capital, Scale Intensive	6.6	28.9	5.7	29.6	10.7
Medium Skill, Technology, Capital, Scale Intensive	3.4	14.9	2.2	11.2	2.4
Low Skill, Technology, Capital, Scale Intensive	9.5	41.8	9.7	50.3	15.3
Labour Intensive and Resource Intensive	3.3	14.5	1.7	8.9	-2.7
Non-manufactures	77.2		80.7		15.9

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.
Source: Compiled from official statistics of the United Nations Comtrade database.

Appendix Table 5.9

Tajikistan, 2000
The Factor Intensity of Exports, Distribution by Region

Factor Intensity Category by Aggregated Region	Share of Total Exports in 2000	Share of Manufactured Exports in 2000
Exports to the World		
High Skill, Technology, Capital, Scale Intensive	6.7	52.2
Medium Skill, Technology, Capital, Scale Intensive	2.3	18.1
Low Skill, Technology, Capital, Scale Intensive	0.4	2.8
Labour Intensive and Resource Intensive	3.5	26.9
Non-manufactures	87.2	
Exports to the other CIS		
High Skill, Technology, Capital, Scale Intensive	12.1	79.5
Medium Skill, Technology, Capital, Scale Intensive	0.6	4.2
Low Skill, Technology, Capital, Scale Intensive	0.7	4.4
Labour Intensive and Resource Intensive	1.8	12.0
Non-manufactures	84.8	
Exports to the Rest of the World		
High Skill, Technology, Capital, Scale Intensive	0.3	3.5
Medium Skill, Technology, Capital, Scale Intensive	4.3	42.9
Low Skill, Technology, Capital, Scale Intensive	0.0	0.0
Labour Intensive and Resource Intensive	5.4	53.6
Non-manufactures	90.0	

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.
Source: Compiled from official statistics of the United Nations Comtrade database.

Appendix Table 5.10

Turkmenistan, 1999-2000
The Factor Intensity of Exports, Distribution and Growth by Region

Factor Intensity Category by Aggregated Region	Share of Total Exports in 1999	Share of Manufactured Exports in 1999	Share of Total Exports in 2000	Share of Manufactured Exports in 2000	Annual Growth Rate of Exports 1999-2000
Exports to the World					
High Skill, Technology, Capital, Scale Intensive	2.1	17.7	0.9	13.2	-9.4
Medium Skill, Technology, Capital, Scale Intensive	0.1	0.7	0.1	0.8	39.0
Low Skill, Technology, Capital, Scale Intensive	0.1	0.6	0.2	2.8	437.9
Labour Intensive and Resource Intensive	9.7	81.0	5.7	83.2	24.6
Non-manufactures	88.0		93.1		123.3
Exports to the other CIS					
High Skill, Technology, Capital, Scale Intensive	4.5	47.8	1.3	39.0	-25.2
Medium Skill, Technology, Capital, Scale Intensive	0.1	1.4	0.1	1.9	20.6
Low Skill, Technology, Capital, Scale Intensive	0.1	0.8	0.1	2.3	144.1
Labour Intensive and Resource Intensive	4.7	50.0	1.8	56.8	4.2
Non-manufactures	90.5		96.8		187.2
Exports to the Rest of the World					
High Skill, Technology, Capital, Scale Intensive	0.4	3.1	0.5	4.7	110.1
Medium Skill, Technology, Capital, Scale Intensive	0.0	0.4	0.1	0.5	75.1
Low Skill, Technology, Capital, Scale Intensive	0.1	0.5	0.3	3.0	663.2
Labour Intensive and Resource Intensive	13.2	96.0	10.0	91.8	29.7
Non-manufactures	86.3		89.1		76.3

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.
Source: Compiled from official statistics of the United Nations Comtrade database.

Appendix Table 5.11

Ukraine, 2000-2004
The Factor Intensity of Exports, Distribution and Growth by Region

Factor Intensity Category by Aggregated Region	Share of Total Exports in 2000	Share of Manufactured Exports in 2000	Share of Total Exports in 2004	Share of Manufactured Exports in 2004	Annual Growth Rate of Exports 2000-2004
Exports to the World					
High Skill, Technology, Capital, Scale Intensive	11.1	16.6	12.2	17.3	25.1
Medium Skill, Technology, Capital, Scale Intensive	10.9	16.3	9.5	13.5	18.2
Low Skill, Technology, Capital, Scale Intensive	37.4	55.8	42.3	60.2	26.2
Labour Intensive and Resource Intensive	7.6	11.3	6.3	9.0	17.0
Non-manufactures	32.9	.	29.7	.	19.2
Exports to the other CIS					
High Skill, Technology, Capital, Scale Intensive	9.5	13.8	7.5	10.7	10.6
Medium Skill, Technology, Capital, Scale Intensive	23.5	34.0	20.9	29.7	14.0
Low Skill, Technology, Capital, Scale Intensive	28.7	41.5	35.1	49.8	23.4
Labour Intensive and Resource Intensive	7.4	10.7	6.9	9.8	15.4
Non-manufactures	30.8	.	29.5	.	16.1
Exports to the Rest of the World					
High Skill, Technology, Capital, Scale Intensive	11.8	17.9	13.8	19.6	29.2
Medium Skill, Technology, Capital, Scale Intensive	5.4	8.1	5.5	7.8	25.1
Low Skill, Technology, Capital, Scale Intensive	41.3	62.4	44.8	63.8	27.0
Labour Intensive and Resource Intensive	7.7	11.6	6.1	8.7	17.7
Non-manufactures	33.9	.	29.8	.	20.4

Notes: (1) "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero.
Source: Compiled from official statistics of the United Nations Comtrade database.

Appendix Table 6.1.A

Armenia
Top Export Categories and their Destinations

Commodity		Export Value ($ millions)			Percent of Total Exports			Top Destination 2004	
SITC	Description	2000	2002	2004	2000	2002	2004	Country	Percent
6672	Diamonds other than sorted industrial diamonds	98.7	167.2	221.0	33.6	43.7	31.0	BEL	48.0
6715	Other ferro-alloys (excluding radioactive)	7.1	8.8	64.7	2.4	2.3	9.1	DEU	46.7
1124	Spirits other than ethyl alcohol and denatured spirits	21.3	42.7	53.7	7.2	11.2	7.5	RUS	86.3
9710	Gold, non-monetary (excluding gold ores)	9.3	33.0	43.6	3.2	8.6	6.1	S+L	62.2
2878	Ores and concentrates of molybdenum, niobium	.	15.0	42.7	.	3.9	6.0	CHN	47.1
6821	Copper, refined and unrefined	11.4	9.7	35.7	3.9	2.5	5.0	DEU	100.0
8973	Jewellery of gold, silver or platinum	10.7	7.0	33.4	3.6	1.8	4.7	UPV	78.5
2831	Copper ores and concentrates	6.2	12.2	28.9	2.1	3.2	4.1	BLZ	33.9
8455	Brassières, girdles, corsets, braces, suspenders	2.1	.	25.3	0.7	.	3.6	I+S	99.3
3510	Electric current	20.6	13.4	19.0	7.0	3.5	2.7	GEO	47.5
6841	Aluminium and aluminium alloys, unwrought	.	0.0	9.8	.	0.0	1.4	UPV	75.7
2321	Synthetic rubber and factice derived from oils	8.1	5.1	8.9	2.7	1.3	1.3	IRN	40.9
2882	Other non-ferrous base metal waste and scrap	18.0	9.7	7.8	6.1	2.5	1.1	IRN	61.9
6999	Semi-manufactures and articles of tungsten	.	0.2	7.7	.	0.0	1.1	DEU	100.0
6612	Portland cement, aluminous cement, slag cement	0.6	0.3	6.5	0.2	0.1	0.9	GEO	82.9
1222	Cigarettes containing tobacco	1.3	2.2	3.9	0.4	0.6	0.6	AS*	38.2
0567	Vegetables, prepared or preserved, n.e.s.	1.0	4.0	3.9	0.3	1.0	0.5	RUS	52.4
0712	Coffee, roasted	0.1	0.5	3.7	0.0	0.1	0.5	GEO	69.8
0362	Crustaceans, other than frozen	0.1	1.7	2.7	0.0	0.4	0.4	F+M	29.5
7649	Parts and accessories for television receivers	0.7	2.8	2.7	0.2	0.7	0.4	UKR	74.3
8448	Slips, petticoats, briefs, panties, nightdresses	0.6	0.0	2.7	0.2	0.0	0.4	I+S	95.3
2823	Other ferrous waste and scrap	1.0	1.7	2.4	0.3	0.4	0.3	AUT	57.5
0711	Coffee, not roasted, whether or not decaffeinated	.	.	2.3	.	.	0.3	GEO	76.3
6793	Other tubes and pipes (e.g., welded, riveted)	.	.	2.3	.	.	0.3	IRN	83.8
6531	Fabrics, woven, of synthetic filament yarn	.	.	2.2	.	.	0.3	UPV	97.8
T 25	Total of top 25 items	218.9	337.1	637.6	74.4	88.1	89.5		
T All	Total, all items	294.1	382.8	712.2	100.0	100.0	100.0	BEL	15.1

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.1.B

Armenia
Top Import Categories and their Sources

Commodity		Import Value ($ millions)			Percent of Total Imports			Top Source 2004	
SITC	Description	2000	2002	2004	2000	2002	2004	Country	Percent
6672	Diamonds other than sorted industrial diamonds	100.8	184.9	217.2	12.0	19.6	16.7	BEL	46.6
334X	Petroleum oils, n.e.s.	74.1	88.3	119.1	8.8	9.3	9.1	GBR	38.6
3432	Natural gas, in the gaseous state	81.8	59.0	72.0	9.7	6.2	5.5	RUS	100.0
9710	Gold, non-monetary (excluding gold ores)	12.1	24.0	71.5	1.4	2.5	5.5	LUX	57.2
0411	Durum wheat, unmilled	52.0	41.0	62.3	6.2	4.3	4.8	GBR	39.6
1222	Cigarettes containing tobacco	17.2	25.6	33.5	2.0	2.7	2.6	PAN	44.9
7812	Motor vehicles for the transport of persons, n.e.s.	4.3	13.8	32.6	0.5	1.5	2.5	RUS	63.4
5429	Medicaments, n.e.s.	40.3	21.7	30.5	4.8	2.3	2.3	UPV	28.4
0612	Other beet or cane sugar, chemically pure sucrose	17.4	16.7	18.1	2.1	1.8	1.4	GBR	83.8
7649	Parts and accessories for television receivers	29.2	9.8	17.3	3.5	1.0	1.3	GRC	91.1
8455	Brassières, girdles, corsets, braces, suspenders	2.2	4.5	12.5	0.3	0.5	1.0	I+S	97.8
0112	Meat of bovine animals, frozen	7.4	6.3	12.0	0.9	0.7	0.9	ARE	43.8
7821	Motor vehicles for the transport of goods	1.8	6.1	10.3	0.2	0.6	0.8	RUS	61.9
0711	Coffee, not roasted, whether or not decaffeinated	13.4	8.5	9.8	1.6	0.9	0.8	LBN	60.4
6911	Structures (excluding prefabricated buildings)	0.5	0.5	9.7	0.1	0.1	0.7	DEU	79.9
676X	Iron and steel bars, n.e.s.	1.0	5.2	9.7	0.1	0.6	0.7	S+L	34.9
4215	Sunflower seed or safflower oil	4.9	7.1	8.1	0.6	0.7	0.6	IRN	43.7
0123	Meat and edible offal of the poultry	10.8	8.2	7.8	1.3	0.9	0.6	DOM	27.9
0230	Butter and other fats and oils derived from milk	5.2	3.8	7.1	0.6	0.4	0.5	UKR	32.4
2690	Worn clothing and other worn textile articles	4.3	5.6	7.0	0.5	0.6	0.5	UPV	93.2
4312	Animal or vegetable fats and oils	6.4	7.2	7.0	0.8	0.8	0.5	IRN	78.7
8749	Parts and accessories for machines, appliances	1.0	0.7	6.9	0.1	0.1	0.5	UPV	95.8
0449	Maize, other than seed	2.7	3.1	6.3	0.3	0.3	0.5	UKR	53.2
8722	Instruments and appliances for medical services	3.3	2.1	6.3	0.4	0.2	0.5	DEU	33.5
0819	Food wastes and prepared animal feeds, n.e.s.	1.6	3.5	6.1	0.2	0.4	0.5	NLD	35.6
T 25	Total of top 25 items	495.5	557.3	800.4	59.0	59.0	61.5		
T All	Total, all items	840.3	945.0	1,302.2	100.0	100.0	100.0	RUS	13.3

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.2.A

Azerbaijan
Top Export Categories and their Destinations

Commodity		Export Value ($ millions)			Percent of Total Exports			Top Destination 2004	
SITC	Description	2000	2002	2004	2000	2002	2004	Country	Percent
3330	Petroleum oils, oils from bituminous materials, crude	985.4	1,476.3	2,264.4	56.5	68.1	62.6	I+S	68.3
334X	Petroleum, oils from bituminous materials, n.e.s.	.	.	697.9	.	.	19.3	GEO	23.7
7935	Light vessels, fire-floats, dredgers, floating cranes	0.6	0.4	136.3	0.0	0.0	3.8	TKM	100.0
2852	Alumina (aluminium oxide), except artificial corundum	21.6	17.0	50.0	1.2	0.8	1.4	TJK	89.7
6841	Aluminium and aluminium alloys, unwrought	9.2	.	47.9	0.5	.	1.3	HKG	37.7
5711	Polyethylene	13.5	16.0	45.5	0.8	0.7	1.3	TUR	54.1
2631	Cotton (other than linters), not carded or combed	4.6	11.3	35.5	0.3	0.5	1.0	RUS	47.3
6727	Semi-finished products of iron or non-alloy steel	0.0	5.1	19.1	0.0	0.2	0.5	IRN	100.0
0741	Tea, whether or not flavoured	2.6	5.1	18.6	0.2	0.2	0.5	RUS	96.4
4215	Sunflower seed or safflower oil and fractions thereof	0.6	0.6	18.0	0.0	0.0	0.5	RUS	95.5
6768	Angles, shapes and sections, of iron and steel	0.0	0.5	18.0	0.0	0.0	0.5	IRN	97.3
9310	Special transactions and commodities not classified	.	17.7	16.7	.	0.8	0.5	RUS	100.0
5759	Plastics, n.e.s.	5.7	4.5	12.2	0.3	0.2	0.3	UPV	77.7
5121	Acyclic monohydric alcohols	3.8	5.4	12.0	0.2	0.2	0.3	ESP	22.9
0579	Fruit, fresh or dried, n.e.s.	2.2	6.4	11.6	0.1	0.3	0.3	RUS	94.5
0574	Apples, fresh	0.5	1.9	11.3	0.0	0.1	0.3	RUS	99.9
0577	Edible nuts, fresh or dried, shelled or peeled	18.0	14.2	10.1	1.0	0.7	0.3	RUS	46.7
4312	Animal or vegetable fats and oils and their fractions	0.0	0.7	9.4	0.0	0.0	0.3	RUS	98.5
7239	Parts, n.e.s., of the plant and equipment machinery	8.6	14.7	9.2	0.5	0.7	0.3	UPV	35.4
0599	Fruit (except citrus) or vegetable juice, mix of juices	0.7	2.8	8.5	0.0	0.1	0.2	RUS	75.8
4216	Maize (corn) oil and its fractions	0.0	0.0	8.0	0.0	0.0	0.2	RUS	99.2
0910	Margarine; mixtures of vegetable or animal fats, oils	0.0	0.5	7.6	0.0	0.0	0.2	RUS	96.9
1222	Cigarettes containing tobacco	1.9	11.7	7.1	0.1	0.5	0.2	TUR	73.8
0544	Tomatoes, fresh or chilled	0.1	0.3	6.0	0.0	0.0	0.2	RUS	100.0
5111	Acyclic hydrocarbons	1.7	1.5	5.4	0.1	0.1	0.1	RUS	60.2
T 25	Total of top 25 items	1,081.5	1,614.4	3,486.5	62.0	74.5	96.4		
T All	Total, all items	1,745.2	2,167.5	3,615.4	100.0	100.0	100.0	I+S	44.7

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.2.B

Azerbaijan
Top Import Categories and their Sources

Commodity		Import Value ($ millions)			Percent of Total Imports			Top Source 2004	
SITC	Description	2000	2002	2004	2000	2002	2004	Country	Percent
3432	Natural gas, in the gaseous state	2.3	211.6	252.6	0.2	12.7	7.2	KAZ	55.0
7239	Parts, n.e.s., of plant and equipment machinery	30.2	52.5	212.8	2.6	3.2	6.1	N+S	24.4
0412	Other wheat (including spelt) and meslin, unmilled	78.3	63.8	177.6	6.7	3.8	5.1	KAZ	46.4
6793	Other tubes and pipes (e.g., welded or riveted)	3.1	116.0	162.4	0.3	7.0	4.6	MYS	72.0
6791	Tubes, pipes and hollow profiles, seamless, of iron	29.8	28.6	141.3	2.5	1.7	4.0	JPN	53.6
8110	Prefabricated buildings	2.0	2.9	110.3	0.2	0.2	3.1	NLD	72.4
7812	Motor vehicles for the transport of persons, n.e.s	21.9	40.5	98.4	1.9	2.4	2.8	RUS	65.9
334X	Petroleum, bituminous materials oils, n.e.s., not crude	.	.	88.8	.	.	2.5	TKM	84.0
6911	Structures (excluding prefabricated buildings)	18.4	40.1	68.7	1.6	2.4	2.0	NLD	23.4
7478	Taps, cocks, valves and similar appliances, n.e.s.	3.2	3.6	67.2	0.3	0.2	1.9	I+S	53.4
3510	Electric current	35.6	67.1	59.0	3.0	4.0	1.7	RUS	69.9
7272	Other food-processing machinery, and parts thereof	2.0	8.2	54.6	0.2	0.5	1.6	DEU	92.0
2851	Aluminium ores and concentrates	28.0	10.5	53.1	2.4	0.6	1.5	IND	54.5
7427	Pumps for liquids, n.e.s., and liquid elevators	4.1	8.9	43.7	0.4	0.5	1.2	GBR	77.5
673X	Flat-rolled products of iron or non-alloy steel, n.e.s.	4.0	6.8	40.6	0.3	0.4	1.2	DEU	68.4
7726	Boards, panels (including numerical control panels)	16.0	6.8	39.4	1.4	0.4	1.1	GBR	61.1
7438	Parts for the pumps, compressors, and fans	3.6	11.5	37.0	0.3	0.7	1.1	UKR	42.0
7643	Transmission apparatus for radio-telephony, television	43.8	22.8	36.0	3.7	1.4	1.0	SWE	69.9
7165	Generating sets	2.4	8.2	34.3	0.2	0.5	1.0	GBR	89.1
7431	Air or vacuum pumps, compressors, ventilating hoods	14.5	5.6	34.1	1.2	0.3	1.0	GBR	62.3
6612	Portland, aluminous, slag, and supersulphate cement	18.7	10.7	34.1	1.6	0.6	1.0	RUS	69.4
7731	Insulated wire, cable and other electric conductors	13.9	12.2	31.6	1.2	0.7	0.9	I+S	23.6
7932	Ships, boats and other vessels	0.8	5.3	28.9	0.1	0.3	0.8	RUS	93.8
7484	Gears and gearing, ball screws, other speed changers	0.4	0.5	27.0	0.0	0.0	0.8	F+M	96.7
6795	Tube or pipe fittings of iron or steel	5.7	6.4	26.8	0.5	0.4	0.8	GBR	42.6
T 25	Total of top 25 items	382.7	751.0	1,960.4	32.7	45.1	55.8		
T All	Total, all items	1,172.0	1,665.6	3,515.9	100.0	100.0	100.0	RUS	16.2

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.3.A

Republic of Belarus
Top Export Categories and their Destinations

Commodity		Export Value ($ millions)			Percent of Total Exports			Top Destination 2004	
SITC	Description	2000	2002	2004	2000	2002	2004	Country	Percent
334X	Petroleum oils, oils from bituminous minerals, n.e.s.	1,358.3	1,478.8	3,295.7	18.5	18.4	24.0	GBR	32.9
5623	Mineral or chemical fertilizers, potassic	410.0	463.1	752.0	5.6	5.8	5.5	BRA	19.3
7821	Motor vehicles for the transport of goods	349.2	331.5	532.4	4.8	4.1	3.9	RUS	73.6
7224	Wheeled tractors except those used at railway station	200.4	204.9	339.1	2.7	2.6	2.5	RUS	55.3
676X	Iron and steel bars, rods, angles, and shapes, n.e.s.	70.5	128.2	337.3	1.0	1.6	2.5	RUS	61.1
7752	Household-type refrigerators and food freezers	140.0	187.5	289.2	1.9	2.3	2.1	RUS	85.1
3330	Petroleum oils, oils from bituminous minerals, crude	61.7	93.5	243.1	0.8	1.2	1.8	DEU	57.1
7843	Other parts and accessories of the motor vehicles	128.0	118.8	212.7	1.7	1.5	1.5	RUS	71.1
7832	Road tractors for semi-trailers	101.4	134.4	194.1	1.4	1.7	1.4	RUS	75.0
0612	Other beet or cane sugar and sucrose, in solid form	79.5	118.1	188.4	1.1	1.5	1.4	RUS	98.4
8215	Furniture, n.e.s., of wood	96.9	118.9	187.3	1.3	1.5	1.4	RUS	76.0
2482	Wood of coniferous species, more than 6 mm thick	58.5	70.3	156.2	0.8	0.9	1.1	DEU	32.1
0222	Milk and cream, concentrated or sweetened	45.5	46.1	143.5	0.6	0.6	1.0	RUS	97.2
6931	Wire products of iron, steel, copper or aluminium	81.9	77.3	131.3	1.1	1.0	1.0	RUS	36.1
9310	Special transactions, commodities not classified by kind	186.0	71.7	113.8	2.5	0.9	0.8	RUS	34.5
0249	Other cheese; curd	27.7	41.6	113.1	0.4	0.5	0.8	RUS	100.0
5156	Lactams and heterocyclic compounds	3.5	70.8	102.1	0.0	0.9	0.7	CHN	93.4
6624	Non-refractory ceramic bricks, tiles, pipes	55.2	72.2	99.4	0.8	0.9	0.7	RUS	78.7
5621	Mineral or chemical fertilizers, nitrogenous	66.6	64.2	97.8	0.9	0.8	0.7	LTU	73.5
2665	Synthetic staple fibres, not processed for spinning	98.4	78.5	97.7	1.3	1.0	0.7	RUS	59.8
5711	Polyethylene	66.3	63.9	97.1	0.9	0.8	0.7	RUS	46.3
6726	Semi-finished products of iron or non-alloy steel	39.4	48.5	94.2	0.5	0.6	0.7	ROU	22.3
0112	Meat of bovine animals, frozen	8.0	36.7	92.4	0.1	0.5	0.7	RUS	100.0
78XX	Road vehicles (including air-cushion vehicles), n.e.s.	.	40.3	90.0	.	0.5	0.7	RUS	100.0
6973	Cooking or heating apparatus, domestic purposes	45.0	57.4	87.9	0.6	0.7	0.6	RUS	87.9
T 25	Total of top 25 items	3,777.9	4,217.3	8,087.9	51.5	52.6	58.8		
T All	Total, all items	7,331.1	8,020.9	13,751.7	100.0	100.0	100.0	RUS	47.0

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.3.B

Republic of Belarus
Top Import Categories and their Sources

Commodity		Import Value ($ millions)			Percent of Total Imports			Top Source 2004	
SITC	Description	2000	2002	2004	2000	2002	2004	Country	Percent
3330	Petroleum oils, oils from bituminous minerals, crude	1,627.8	1,504.5	3,232.2	19.2	16.5	19.8	RUS	100.0
3432	Natural gas, in the gaseous state	526.2	538.5	937.4	6.2	5.9	5.7	RUS	100.0
78XX	Road vehicles (including air-cushion vehicles), n.e.s.	0.0	222.2	375.3	0.0	2.4	2.3	OTH	75.3
673X	Iron or non-alloy steel products, plated or coated, n.e.s.	132.2	120.6	314.4	1.6	1.3	1.9	RUS	77.8
7132	Internal combustion piston engines for propelling	72.1	93.5	206.0	0.8	1.0	1.3	RUS	66.3
2823	Other ferrous waste and scrap	78.9	60.0	191.9	0.9	0.7	1.2	RUS	100.0
334X	Petroleum oils, other than crude oils, n.e.s.	212.8	98.4	177.4	2.5	1.1	1.1	RUS	90.4
9310	Special transactions, commodities not classified	128.7	85.5	147.0	1.5	0.9	0.9	RUS	62.5
5429	Medicaments, n.e.s.	133.2	96.8	137.1	1.6	1.1	0.8	DEU	15.5
6842	Aluminium and aluminium alloys, worked	56.0	72.7	130.0	0.7	0.8	0.8	RUS	73.5
7212	Harvesting or threshing machinery and parts, n.e.s.	72.8	64.4	126.4	0.9	0.7	0.8	DEU	60.4
7731	Insulated wire, cable, and other electric conductors	48.9	98.3	115.9	0.6	1.1	0.7	RUS	85.9
7843	Other parts and accessories of the motor vehicles	87.0	54.2	113.2	1.0	0.6	0.7	RUS	50.7
7XXX	Machinery and transport equipment, n.e.s.	0.0	46.5	108.6	0.0	0.5	0.7	RUS	97.3
6794	Other tubes, pipes and hollow profiles, of iron or steel	39.5	38.9	100.5	0.5	0.4	0.6	RUS	89.9
04XX	Cereals and cereal preparations, n.e.s.	.	83.2	99.5	.	0.9	0.6	RUS	99.9
5112	Cyclic hydrocarbons	66.4	62.0	98.2	0.8	0.7	0.6	RUS	46.2
6791	Tubes and pipes, seamless, of iron and steel	62.4	43.2	98.2	0.7	0.5	0.6	RUS	81.1
1222	Cigarettes containing tobacco	56.1	85.9	97.4	0.7	0.9	0.6	RUS	78.1
6956	Knives, cutting blades, tools for machines or appliances	17.5	23.4	97.1	0.2	0.3	0.6	RUS	89.7
5334	Paints, varnishes, pigments, and other colouring matter	41.4	37.8	95.1	0.5	0.4	0.6	RUS	67.6
7781	Batteries and electric accumulators, and parts thereof	31.7	24.6	94.1	0.4	0.3	0.6	RUS	82.3
7832	Road tractors for semi-trailers	44.7	108.6	90.7	0.5	1.2	0.6	DEU	38.0
0611	Sugars, beet or cane, raw, in solid form	88.8	119.2	90.4	1.0	1.3	0.6	BRA	62.8
7284	Specialized machinery and mechanical appliances	36.7	39.3	89.3	0.4	0.4	0.5	DEU	25.8
T 25	Total of top 25 items	3,661.5	3,822.2	7,363.3	43.1	42.0	45.0		
T All	Total, all items	8,492.4	9,092.3	16,345.4	100.0	100.0	100.0	RUS	68.2

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.4.A

Georgia
Top Export Categories and their Destinations

Commodity		Export Value ($ millions)			Percent of Total Exports			Top Destination 2004	
SITC	Description	2000	2002	2004	2000	2002	2004	Country	Percent
2823	Other ferrous waste and scrap	15.7	30.4	82.6	4.8	8.8	12.7	TUR	86.7
7923	Aeroplanes and other aircraft, weight under 15,000 kg	6.0	40.0	54.7	1.8	11.6	8.4	TKM	100.0
1121	Wine of fresh grapes (including fortified wine)	29.1	33.3	48.9	8.8	9.6	7.5	RUS	73.6
6715	Other ferro-alloys (excluding radioactive ferro-alloys)	7.7	12.5	34.9	2.3	3.6	5.4	UPV	32.5
0612	Other beet or cane sugar, chemically pure sucrose	2.7	13.6	34.3	0.8	3.9	5.3	TKM	63.8
1110	Non-alcoholic beverages, n.e.s.	13.5	20.1	33.4	4.1	5.8	5.1	RUS	41.0
2831	Copper ores and concentrates	9.8	13.2	31.8	3.0	3.8	4.9	BGR	37.3
5621	Mineral or chemical fertilizers, nitrogenous	16.2	12.0	28.8	4.9	3.5	4.4	F+M	21.3
0412	Other wheat (including spelt) and meslin, unmilled	1.2	6.6	21.7	0.4	1.9	3.3	ARM	100.0
1124	Spirits other than ethyl alcohol and denatured spirits	3.0	5.6	18.9	0.9	1.6	2.9	RUS	75.2
9710	Gold, non-monetary (excluding gold ores)	.	28.6	18.8	.	8.3	2.9	GBR	89.0
2882	Other non-ferrous base metal waste and scrap, n.e.s.	17.2	10.1	18.7	5.2	2.9	2.9	TUR	60.9
0577	Edible nuts, fresh or dried,shelled or peeled	19.3	6.8	17.7	5.9	2.0	2.7	DEU	25.5
7921	Helicopters	0.7	0.9	17.6	0.2	0.3	2.7	TKM	100.0
2822	Waste and scrap of alloy steel	23.3	6.1	13.4	7.1	1.8	2.1	TUR	78.5
7924	Aeroplanes and other aircraft, weight over 15,000 kg	0.3	0.7	11.4	0.1	0.2	1.8	TKM	100.0
3330	Petroleum oils, oils from bituminous materials	12.8	6.5	9.9	3.9	1.9	1.5	S+L	38.8
2484	Wood of non-coniferous species, sawn or chipped	3.2	4.7	9.1	1.0	1.4	1.4	TUR	76.5
334X	Petroleum oils, oils from bituminous minerals, n.e.s.	6.4	4.0	8.7	2.0	1.2	1.3	ARM	73.6
6714	Ferromanganese	5.9	3.0	7.6	1.8	0.9	1.2	UPV	46.4
2877	Manganese ores and concentrates	3.5	5.7	6.6	1.1	1.7	1.0	SVK	30.9
6612	Portland, aluminous, slag, or supersulphate cement	0.5	0.1	4.7	0.1	0.0	0.7	AZE	100.0
0222	Milk and cream, concentrated or sweetened	0.0	0.0	4.4	0.0	0.0	0.7	I+S	39.4
7812	Motor vehicles for the transport of persons, n.e.s	0.5	0.6	3.9	0.1	0.2	0.6	ARM	44.9
0741	Tea, whether or not flavoured	6.1	4.7	3.7	1.8	1.3	0.6	RUS	22.7
T 25	Total of top 25 items	204.6	269.7	546.3	62.0	77.9	84.2		
T All	Total, all items	329.9	346.3	648.8	100.0	100.0	100.0	TUR	18.3

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.4.B

Georgia
Top Import Categories and their Sources

Commodity		Import Value ($ millions)			Percent of Total Imports			Top Source 2004	
SITC	Description	2000	2002	2004	2000	2002	2004	Country	Percent
334X	Petroleum oils, oils from bituminous minerals, n.e.s.	71.9	88.9	186.5	11.1	11.2	10.1	AZE	70.7
7812	Motor vehicles for the transport of persons, n.e.s	15.1	22.1	116.0	2.3	2.8	6.3	DEU	54.2
6793	Other tubes and pipes (e.g., welded, riveted)	0.2	0.4	80.0	0.0	0.1	4.3	GBR	99.1
3432	Natural gas, in the gaseous state	46.0	48.7	73.9	7.1	6.1	4.0	RUS	100.0
5429	Medicaments, n.e.s.	28.7	55.6	72.1	4.4	7.0	3.9	UPV	15.4
0412	Other wheat (including spelt) and meslin, unmilled	19.9	14.8	53.9	3.1	1.9	2.9	RUS	40.4
0461	Flour of wheat or of meslin	20.3	8.8	48.8	3.1	1.1	2.6	TUR	72.9
3510	Electric current	15.1	17.7	32.3	2.3	2.2	1.7	RUS	62.0
0612	Other beet or cane sugar, chemically pure sucrose	13.5	23.6	27.8	2.1	3.0	1.5	BRA	51.4
1222	Cigarettes containing tobacco	29.3	18.9	27.7	4.5	2.4	1.5	UKR	60.3
7148	Gas turbines, n.e.s.	0.0	0.1	23.5	0.0	0.0	1.3	UPV	78.8
0611	Sugars, beet or cane, raw, in solid form	11.1	11.1	23.0	1.7	1.4	1.2	GBR	56.9
0411	Durum wheat, unmilled	2.0	5.3	21.2	0.3	0.7	1.1	UPV	70.8
8912	Bombs, grenades, mines, and similar munitions of war	0.1	0.6	18.9	0.0	0.1	1.0	BGR	43.5
7239	Parts, n.e.s., of the plant and equipment machinery	10.0	2.1	16.9	1.5	0.3	0.9	GBR	50.3
4215	Sunflower seed or sunflower oil and fractions thereof	1.0	3.1	15.9	0.2	0.4	0.9	UKR	51.7
0739	Food preparations containing cocoa, n.e.s.	1.4	4.3	15.3	0.2	0.5	0.8	UKR	42.1
7643	Transmission apparatus for radio-telephony, television	16.8	16.6	15.0	2.6	2.1	0.8	TUR	27.4
7649	Parts and accessories for television receivers	10.1	9.5	14.4	1.5	1.2	0.8	TUR	34.6
3250	Coke and semi-coke of coal, lignite, peat; retort carbon	1.3	1.9	13.6	0.2	0.2	0.7	RUS	54.5
7285	Parts, n.e.s., of specialized machines and applliances	1.9	8.9	12.5	0.3	1.1	0.7	GBR	40.5
7821	Motor vehicles for the transport of goods	0.7	5.6	12.2	0.1	0.7	0.7	DEU	48.6
8911	Armoured fighting vehicles and arms of war	0.3	0.6	11.9	0.1	0.1	0.6	UKR	75.0
7731	Insulated wire, cable, and other electric conductors	14.9	3.7	11.9	2.3	0.5	0.6	GBR	22.5
7478	Taps, cocks, valves and similar appliances, n.e.s.	0.6	1.1	11.1	0.1	0.1	0.6	I+S	46.5
T 25	Total of top 25 items	332.3	373.9	956.1	51.1	47.1	51.8		
T All	Total, all items	650.7	793.3	1,847.0	100.0	100.0	100.0	RUS	14.0

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.5.A

Kazakhstan
Top Export Categories and their Destinations

Commodity		Export Value ($ millions)			Percent of Total Exports			Top Destination 2003	
SITC	Description	2000	2001	2003	2000	2001	2003	Country	Percent
3330	Petroleum oils, oils from bituminous minerals, crude	4,249.0	4,268.1	7,012.5	48.3	49.5	54.2	BMU	31.3
6821	Copper, refined and unrefined; copper anodes, alloys	673.7	638.4	626.4	7.7	7.4	4.8	CHN	66.9
673X	Iron or non-alloy steel products, plated or coated, n.e.s.	534.2	375.6	561.8	6.1	4.4	4.3	CHN	47.6
0412	Other wheat (including spelt) and meslin, unmilled	441.5	312.4	510.5	5.0	3.6	3.9	UKR	38.8
6715	Other ferro-alloys (excluding radioactive ferro-al	280.6	312.9	451.8	3.2	3.6	3.5	S+L	57.1
334X	Petroleum, bituminous materials oils, except crude,n.e.s.	100.3	129.3	252.5	1.1	1.5	2.0	KGZ	24.3
3212	Other coal	163.8	222.4	247.6	1.9	2.6	1.9	RUS	81.6
6741	Flat-rolled products of iron or steel, coated with zinc	132.4	120.5	246.6	1.5	1.4	1.9	RUS	40.6
3432	Natural gas, in the gaseous state	37.5	79.1	228.9	0.4	0.9	1.8	RUS	47.7
2852	Alumina (aluminium oxide), except artificial corundum	161.0	186.7	186.9	1.8	2.2	1.4	RUS	90.1
6861	Zinc and zinc alloys, unwrought	179.6	157.7	144.9	2.0	1.8	1.1	CHN	38.9
2631	Cotton (other than linters), not carded or combed	85.3	84.7	140.3	1.0	1.0	1.1	LVA	52.1
9710	Gold, non-monetary (excluding gold ores, concentrates)	167.9	101.6	134.1	1.9	1.2	1.0	S+L	75.7
2816	Iron ore agglomerates (sinters, pellets, briquettes, etc.)	41.6	55.5	129.2	0.5	0.6	1.0	RUS	77.8
6742	Flat-rolled products of iron or steel, coated with tin	86.9	76.6	115.6	1.0	0.9	0.9	RUS	36.4
6811	Silver, unwrought, unworked or semi-manufactured	175.9	135.8	110.3	2.0	1.6	0.9	DEU	33.2
5251	Radioactive chemical elements & radioactive isotopes	120.1	109.3	103.5	1.4	1.3	0.8	RUS	45.9
6824	Copper wire	6.2	59.3	98.1	0.1	0.7	0.8	CHN	99.5
2823	Other ferrous waste and scrap	58.7	79.3	76.6	0.7	0.9	0.6	CHN	69.7
2831	Copper ores and concentrates	35.6	35.8	70.5	0.4	0.4	0.5	CHN	90.8
3421	Propane, liquefied	0.7	24.9	66.2	0.0	0.3	0.5	FIN	23.5
0461	Flour of wheat or of meslin	41.6	26.4	57.7	0.5	0.3	0.4	UZB	41.4
6898	Intermediate products of cobalt metallurgy; cobalt	30.2	61.6	56.9	0.3	0.7	0.4	UPV	43.8
6114	Other bovine leather and equine leather, without hair	0.1	3.2	50.7	0.0	0.0	0.4	CHN	91.3
2815	Iron ore and concentrates, not agglomerated	17.9	29.1	49.6	0.2	0.3	0.4	RUS	100.0
T 25	Total of top 25 items	7,822.2	7,686.3	11,729.8	89.0	89.2	90.7		
T All	Total, all items	8,788.8	8,619.6	12,926.7	100.0	100.0	100.0	BMU	17.0

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.5.B

Kazakhstan
Top Import Categories and their Sources

Commodity		Import Value ($ millions)			Percent of Total Imports			Top Source 2003	
SITC	Description	2000	2001	2003	2000	2001	2003	Country	Percent
7812	Motor vehicles for the transport of persons, n.e.s	213.2	222.2	347.1	4.2	3.5	4.1	JPN	35.6
334X	Petroleum oils and bituminous materials oils, n.e.s.	249.6	295.3	270.5	5.0	4.6	3.2	RUS	77.5
3330	Petroleum oils, oils from bituminous minerals, crude	79.9	232.2	259.4	1.6	3.7	3.1	RUS	100.0
3432	Natural gas, in the gaseous state	119.6	147.7	254.0	2.4	2.3	3.0	RUS	60.5
5251	Radioactive chemical elements & radioactive isotopes	99.4	136.6	162.8	2.0	2.1	1.9	RUS	88.3
6791	Tubes, pipes and hollow profiles, seamless, of iron	106.8	212.1	151.3	2.1	3.3	1.8	RUS	33.4
5429	Medicaments, n.e.s.	61.9	80.3	136.4	1.2	1.3	1.6	DEU	15.8
6793	Other tubes and pipes (e.g., welded or riveted)	27.5	106.2	120.4	0.5	1.7	1.4	RUS	44.4
0611	Sugars, beet or cane, raw, in solid form	68.6	114.8	120.3	1.4	1.8	1.4	BRA	61.9
7918	Railway or tramway freight and maintenance cars	54.8	23.1	114.6	1.1	0.4	1.4	RUS	43.1
7641	Electrical apparatus for line telephony or line telegraphy	49.3	37.5	105.1	1.0	0.6	1.3	SWE	20.6
7821	Motor vehicles for the transport of goods	76.1	69.9	104.2	1.5	1.1	1.2	RUS	50.1
7822	Special-purpose motor vehicles, ex. for persons	68.0	105.7	89.2	1.4	1.7	1.1	RUS	49.9
7924	Aeroplanes and other aircraft, weight over 15,000 kg	3.7	6.1	88.6	0.1	0.1	1.1	UPV	79.6
7649	Parts and accessories for television receivers	50.8	71.9	81.9	1.0	1.1	1.0	KOR	27.9
7239	Parts, n.e.s., of plant and equipment machinery	79.8	113.0	80.9	1.6	1.8	1.0	UPV	28.6
676X	Iron & steel bars, rods, angles, shapes & sections, n.e.s.	18.7	29.3	70.9	0.4	0.5	0.8	RUS	80.2
7234	Construction and mining machinery, n.e.s.	55.3	57.5	69.9	1.1	0.9	0.8	F+M	23.5
7919	Railway, tramway track fixtures, other mechanical equip.	24.2	34.7	69.7	0.5	0.5	0.8	RUS	63.4
7283	Machinery for sorting, washing, of earth, stone, minerals	30.4	26.9	67.4	0.6	0.4	0.8	DEU	34.4
7731	Insulated wire, cable and other electric conductors	48.4	64.2	67.4	1.0	1.0	0.8	RUS	37.2
7212	Harvesting or threshing machinery; parts thereof, n.e.s.	34.8	58.1	65.5	0.7	0.9	0.8	RUS	50.8
7643	Transmission apparatus for radio-telephony, television	32.3	42.2	65.0	0.6	0.7	0.8	UPV	20.7
7935	Light vessels, fire-floats, dredgers, floating cranes	0.7	4.1	63.5	0.0	0.1	0.8	SWE	93.9
7478	Taps, cocks, valves and similar appliances, n.e.s.	37.5	60.2	62.9	0.7	0.9	0.7	RUS	24.6
T 25	Total of top 25 items	1,691.4	2,351.8	3,089.0	33.6	37.0	36.7		
T All	Total, all items	5,033.3	6,355.9	8,408.7	100.0	100.0	100.0	RUS	39.0

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.6.A

Kyrgyzstan
Top Export Categories and their Destinations

Commodity		Export Value ($ millions)			Percent of Total Exports			Top Destination 2004	
SITC	Description	1999	2002	2004	1999	2002	2004	Country	Percent
9710	Gold, non-monetary (excluding gold ores)	.	162.8	287.4	.	35.4	40.0	ARE	64.9
334X	Petroleum oils, n.e.s.	.	35.3	58.7	.	7.7	8.2	CAN	59.6
2631	Cotton (other than linters), not carded or combed	20.3	43.7	38.5	4.5	9.5	5.4	RUS	67.9
0612	Other beet or cane sugar and chemically pure sucrose	3.7	5.3	22.0	0.8	1.1	3.1	RUS	98.0
3510	Electric current	52.0	22.0	21.9	11.5	4.8	3.0	RUS	49.3
7782	Electric filament or discharge lamps, parts thereof	9.7	13.9	21.5	2.1	3.0	3.0	RUS	37.2
5251	Radioactive chemical elements & radioactive isotopes	.	.	14.6	.	.	2.0	CAN	51.2
6644	Float glass and polished glass, in sheets	0.0	0.0	12.8	0.0	0.0	1.8	RUS	99.0
6645	Cast glass and rolled glass, in sheets or profiles	0.7	2.3	12.6	0.2	0.5	1.7	KAZ	87.7
8931	Articles for the conveyance or packing of goods	3.3	4.5	11.1	0.7	1.0	1.6	KAZ	83.0
1211	Tobacco, not stemmed/stripped	41.1	19.6	10.7	9.0	4.3	1.5	RUS	75.3
6612	Portland cement, aluminous cement, slag cement	1.1	1.5	9.5	0.2	0.3	1.3	KAZ	98.9
6618	Construction materials of asbestos-cement, n.e.s.	3.6	5.7	9.4	0.8	1.2	1.3	TJK	46.8
2823	Other ferrous waste and scrap	0.1	2.6	9.2	0.0	0.6	1.3	CHN	85.2
0542	Leguminous vegetables, dried, shelled	0.4	6.6	9.0	0.1	1.4	1.3	TUR	39.3
7843	Other parts and accessories of the motor vehicles	7.0	7.3	8.5	1.5	1.6	1.2	RUS	36.3
2822	Waste and scrap of alloy steel	0.8	1.8	6.1	0.2	0.4	0.9	CHN	42.6
8414	Trousers, bib and brace overalls, breeches and shorts	.	2.3	5.8	.	0.5	0.8	RUS	84.8
0545	Other fresh or chilled vegetables	2.7	2.0	5.3	0.6	0.4	0.7	TUR	70.6
8422	Suits and ensembles	.	0.8	5.1	.	0.2	0.7	RUS	99.4
1110	Non-alcoholic beverages, n.e.s.	0.5	0.3	4.3	0.1	0.1	0.6	KAZ	82.0
6841	Aluminium and aluminium alloys, unwrought	.	2.4	4.3	.	0.5	0.6	CHN	98.7
2634	Cotton, carded or combed	0.8	1.5	4.1	0.2	0.3	0.6	RUS	65.9
8427	Blouses, shirts and shirt blouses	.	0.8	4.0	.	0.2	0.6	RUS	99.9
2882	Other non-ferrous base metal waste and scrap, n.e.s.	18.8	5.7	3.9	4.1	1.2	0.5	CHN	98.3
T 25	Total of top 25 items	166.5	350.6	600.3	36.7	76.2	83.5		
T All	Total, all items	453.8	460.3	718.7	100.0	100.0	100.0	ARE	26.3

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.6.B

Kyrgyzstan
Top Import Categories and their Sources

Commodity		Import Value ($ millions)			Percent of Total Imports			Top Source 2004	
SITC	Description	1999	2002	2004	1999	2002	2004	Country	Percent
334X	Petroleum oils, oils from bituminous minerals, n.e.s.	0.0	83.0	200.1	0.0	14.3	21.3	RUS	56.0
7831	Motor vehicles for the transport of ten or more people	1.2	14.6	35.1	0.2	2.5	3.7	DEU	59.1
3432	Natural gas, in the gaseous state	33.0	41.8	32.8	5.5	7.2	3.5	UZB	100.0
5429	Medicaments, n.e.s.	.	9.8	20.0	.	1.7	2.1	UPV	33.6
0612	Other beet or cane sugar and chemically pure sucrose	4.9	8.7	17.9	0.8	1.5	1.9	KAZ	67.9
3212	Other coal	18.1	13.5	16.0	3.0	2.3	1.7	KAZ	99.8
7643	Transmission apparatus for radio-telephony, television	6.2	5.0	13.2	1.0	0.9	1.4	CHN	54.2
6534	Fabrics, woven, of synthetic staple fibres	.	4.7	12.6	.	0.8	1.3	CHN	91.1
7843	Other parts and accessories of the motor vehicles	8.7	2.4	12.3	1.5	0.4	1.3	NLD	72.6
5743	Polycarbonates, alkyd resins and other polyesters	0.8	3.7	12.2	0.1	0.6	1.3	KOR	93.3
1222	Cigarettes containing tobacco	8.3	7.4	11.8	1.4	1.3	1.3	KAZ	56.8
1123	Beer made from malt (including ale, stout and port)	1.3	5.5	11.6	0.2	0.9	1.2	RUS	78.1
0412	Other wheat (including spelt) and meslin, unmilled	13.1	11.6	11.0	2.2	2.0	1.2	KAZ	79.7
7283	Machinery (other than machine tools) for sorting	5.1	18.7	11.0	0.8	3.2	1.2	CAN	53.0
6252	Tyres, pneumatic, new, used on buses or lorries	2.3	4.9	9.6	0.4	0.8	1.0	RUS	85.9
5251	Radioactive chemical elements & radioactive isotopes	.	.	8.6	.	.	0.9	KAZ	100.0
5237	Carbonates; peroxocarbonates (percarbonates)	0.9	2.6	8.5	0.1	0.4	0.9	RUS	98.0
5416	Glycosides; glands or other organs and their extracts	0.7	0.9	8.5	0.1	0.2	0.9	UPV	87.0
7812	Motor vehicles for the transport of persons, n.e.s.	5.9	4.0	7.8	1.0	0.7	0.8	RUS	49.6
676X	Iron & steel bars, rods, angles, shapes & sections, n.e.s.	2.3	1.5	7.6	0.4	0.3	0.8	RUS	65.1
8722	Instruments and appliances used in medical	17.7	3.7	7.2	3.0	0.6	0.8	UPV	43.4
2482	Wood of coniferous species, sawn or chipped length	1.7	2.0	6.7	0.3	0.3	0.7	RUS	99.6
5621	Mineral or chemical fertilizers, nitrogenous	1.5	2.6	6.0	0.3	0.4	0.6	UZB	71.2
2784	Asbestos	2.8	2.5	5.9	0.5	0.4	0.6	KAZ	85.3
5334	Paints and varnishes (including enamels, lacquers)	2.6	4.4	5.9	0.4	0.8	0.6	RUS	67.0
T 25	Total of top 25 items	139.0	259.6	500.1	23.2	44.8	53.1		
T All	Total, all items	599.7	579.4	940.9	100.0	100.0	100.0	RUS	31.2

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.7.A

Republic of Moldova
Top Export Categories and their Destinations

Commodity		Export Value ($ millions)			Percent of Total Exports			Top Destination 2004	
SITC	Description	2000	2002	2004	2000	2002	2004	Country	Percent
1121	Wine of fresh grapes (including fortified wine)	114.2	171.9	250.6	24.2	26.7	25.4	RUS	77.9
2112	Whole hides and skins of bovine animals, weighing	2.9	0.8	50.3	0.6	0.1	5.1	I+S	91.2
4215	Sunflower seed or safflower oil, fractions thereof	3.0	14.4	40.8	0.6	2.2	4.1	HUN	28.9
0577	Edible nuts, fresh or dried, shelled or peeled	17.0	25.2	27.9	3.6	3.9	2.8	F+M	31.2
1124	Spirits other than ethyl alcohol and denatured spirits	12.4	23.6	27.0	2.6	3.7	2.7	RUS	84.2
8454	T-shirts, singlets, other vests, knitted or crocheted	5.0	5.6	25.6	1.1	0.9	2.6	UPV	49.8
0574	Apples, fresh	1.8	4.0	24.5	0.4	0.6	2.5	RUS	79.9
2224	Sunflower seeds	18.0	13.5	21.3	3.8	2.1	2.2	ROU	27.7
0599	Fruit (except citrus) or vegetable juice, mix of juices	14.9	15.1	18.9	3.2	2.4	1.9	DEU	33.5
8514	Other footwear, uppers of leather, composition leather	3.4	7.4	17.3	0.7	1.2	1.8	DEU	67.4
8421	Overcoats, capes, cloaks, anoraks and similar articles	9.5	9.7	16.0	2.0	1.5	1.6	DEU	61.7
0567	Vegetables, prepared or preserved, n.e.s.	10.8	9.0	14.4	2.3	1.4	1.5	RUS	71.0
8451	Babies' garments and clothing accessories	4.2	5.0	14.4	0.9	0.8	1.5	ROU	74.6
2111	Bovine or equine hides and skins, raw	1.4	12.0	14.3	0.3	1.9	1.5	I+S	67.6
3510	Electric current	.	.	14.1	.	.	1.4	ROU	99.9
2732	Gypsum, plasters, limestone flux, limestone	2.2	11.1	12.4	0.5	1.7	1.3	UKR	44.8
8426	Trousers, bib and brace overalls, breeches and shorts	5.9	5.6	12.2	1.2	0.9	1.2	DEU	48.1
6651	Glass containers, glass closures and stoppers	13.6	11.3	10.9	2.9	1.8	1.1	ROU	61.8
8414	Trousers, bib and brace overalls, breeches and shorts	4.5	3.8	10.5	1.0	0.6	1.1	I+S	69.1
6595	Carpets and other textile floor coverings, woven	4.0	6.3	10.5	0.8	1.0	1.1	RUS	52.0
8412	Suits and ensembles	6.3	8.2	10.0	1.3	1.3	1.0	UPV	55.7
8453	Jerseys, pullovers, cardigans, knitted or crocheted	4.2	7.8	9.8	0.9	1.2	1.0	I+S	80.7
0579	Fruit, fresh or dried, n.e.s.	1.4	1.4	9.6	0.3	0.2	1.0	RUS	62.0
7426	Centrifugal pumps, n.e.s.	5.1	4.8	9.2	1.1	0.7	0.9	RUS	92.1
0449	Maize, other than seed	1.5	6.0	8.1	0.3	0.9	0.8	ROU	51.9
T 25	Total of top 25 items	267.4	383.5	680.5	56.7	59.6	69.0		
T All	Total, all items	471.5	643.9	986.3	100.0	100.0	100.0	RUS	35.8

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.7.B

Republic of Moldova
Top Import Categories and their Sources

Commodity		Import Value ($ millions)			Percent of Total Imports			Top Source 2004	
SITC	Description	2000	2002	2004	2000	2002	2004	Country	Percent
334X	Petroleum oils, oils from bituminous minerals, n.e.s.	106.1	100.6	198.5	13.7	9.7	11.2	UKR	54.0
3432	Natural gas, in the gaseous state	79.3	90.2	92.9	10.2	8.7	5.2	RUS	59.3
2112	Whole hides and skins of bovine animals	0.0	0.6	49.4	0.0	0.1	2.8	UKR	99.9
3510	Electric current	46.3	23.5	45.4	6.0	2.3	2.6	UKR	100.0
7812	Motor vehicles for the transport of persons, n.e.s	5.9	17.2	40.4	0.8	1.7	2.3	DEU	30.4
5429	Medicaments, n.e.s.	29.8	36.7	36.7	3.8	3.5	2.1	DEU	15.0
6552	Other knitted or crocheted fabrics, not coated, covered	9.4	13.4	22.7	1.2	1.3	1.3	I+S	42.0
6651	Glass containers, glass closures and stoppers	6.0	10.0	22.5	0.8	1.0	1.3	ROU	31.2
1222	Cigarettes containing tobacco	48.0	6.8	20.3	6.2	0.7	1.1	RUS	63.9
6589	Made-up articles of textile materials, n.e.s.	1.3	8.7	20.0	0.2	0.8	1.1	TUR	49.1
8931	Plastic articles for packing of goods; stoppers, lids, etc.	2.7	7.8	17.1	0.4	0.8	1.0	UKR	46.7
0461	Flour of wheat or of meslin	3.7	6.2	16.4	0.5	0.6	0.9	KAZ	39.7
8121	Boilers and radiators for central heating, parts thereof	1.7	6.7	14.4	0.2	0.6	0.8	I+S	40.1
3425	Butanes, liquefied	1.2	4.2	14.0	0.1	0.4	0.8	UKR	77.8
0123	Meat and edible offal of the poultry	2.7	9.1	13.7	0.3	0.9	0.8	UPV	61.5
8928	Printed matter, n.e.s.	4.3	7.8	13.4	0.6	0.7	0.8	RUS	48.1
7452	Machinery for dishwashing, packing, cleaning containers	1.7	6.4	13.2	0.2	0.6	0.7	I+S	40.7
7224	Wheeled tractors (except those used at railway stations)	1.0	4.9	12.5	0.1	0.5	0.7	BLR	77.4
2111	Bovine or equine hides and skins, raw	0.1	10.1	12.1	0.0	1.0	0.7	UKR	99.0
5913	Weed-killers (herbicides), anti-sprouting products	0.7	2.5	12.1	0.1	0.2	0.7	RUS	43.9
7649	Parts and accessories for television receivers	14.7	13.3	11.7	1.9	1.3	0.7	GRC	22.8
7731	Insulated wire, cable, and other electric conductors	4.3	5.2	11.1	0.6	0.5	0.6	UKR	60.2
5334	Paints and varnishes (including enamels, lacquers)	2.6	6.3	10.9	0.3	0.6	0.6	UKR	28.7
6624	Non-refractory ceramic bricks, tiles, and pipes	3.4	6.2	10.7	0.4	0.6	0.6	BLR	34.3
7641	Electrical apparatus for line telephony or line telegraphy	2.0	8.9	10.5	0.3	0.9	0.6	F+M	36.9
T 25	Total of top 25 items	378.8	413.5	742.5	48.8	39.8	41.9		
T All	Total, all items	777.0	1,038.4	1,773.7	100.0	100.0	100.0	UKR	24.6

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.8.A

Russian Federation
Top Export Categories and their Destinations

Commodity		Export Value ($ millions)			Percent of Total Exports			Top Destination 2004	
SITC	Description	2000	2002	2004	2000	2002	2004	Country	Percent
3330	Petroleum oils, oils from bituminous minerals, crude	23,644.3	27,445.4	55,098.6	23.0	27.3	30.5	NLD	14.8
9310	Special transactions & commodities not classified	12,574.2	9,473.0	30,537.6	12.2	9.4	16.9	SP*	65.9
334X	Petroleum oils, oils from bituminous minerals, n.e.s.	10,711.6	11,139.6	19,143.9	10.4	11.1	10.6	NLD	18.1
3432	Natural gas, in the gaseous state	16,823.7	15,358.8	12,326.4	16.3	15.3	6.8	SP*	100.0
673X	Flat-rolled products of iron or non-alloy steel, n.e.s.	2,085.8	2,047.3	4,364.7	2.0	2.0	2.4	UPV	15.0
6841	Aluminium and aluminium alloys, unwrought	4,141.8	2,893.0	4,093.3	4.0	2.9	2.3	JPN	31.4
6726	Semi-finished products of iron or non-alloy steel	1,473.0	1,558.2	3,859.9	1.4	1.6	2.1	AS*	30.5
6831	Nickel and nickel alloys, unwrought	1,701.5	1,720.1	3,171.1	1.7	1.7	1.8	S+L	43.8
3212	Other coal	1,080.5	1,077.0	2,516.3	1.0	1.1	1.4	UKR	19.5
2474	Wood of coniferous species, in the rough	1,087.9	1,360.1	1,850.9	1.1	1.4	1.0	CHN	41.5
2823	Other ferrous waste and scrap	404.0	415.2	1,815.8	0.4	0.4	1.0	TUR	31.9
2482	Wood of coniferous species, sawn, sliced or peeled	705.2	834.9	1,455.3	0.7	0.8	0.8	JPN	11.9
6712	Pig-iron and spiegeleisen, in blocks or other forms	290.1	373.1	1,355.4	0.3	0.4	0.7	UPV	15.0
5629	Fertilizers, n.e.s.	640.6	679.9	1,133.2	0.6	0.7	0.6	CHN	21.7
5621	Mineral or chemical fertilizers, nitrogenous	532.3	543.9	980.3	0.5	0.5	0.5	BRA	18.4
6821	Copper, refined and unrefined; copper anodes, alloys	1,085.7	710.9	887.6	1.1	0.7	0.5	S+L	57.9
7187	Nuclear reactors, and parts thereof; fuel elements	497.6	641.7	852.8	0.5	0.6	0.5	UKR	46.8
6727	Semi-finished products of iron or non-alloy steel	316.5	339.0	776.4	0.3	0.3	0.4	IRN	36.4
6715	Other ferro-alloys (excluding radioactive ferro-alloys)	248.2	235.0	732.9	0.2	0.2	0.4	NLD	49.6
5623	Mineral or chemical fertilizers, potassic	406.1	419.9	726.0	0.4	0.4	0.4	CYP	43.7
6842	Aluminium and aluminium alloys, worked	635.6	602.7	718.8	0.6	0.6	0.4	UPV	18.8
6824	Copper wire	29.6	167.6	717.2	0.0	0.2	0.4	NLD	38.9
2321	Synthetic rubber and factice derived from oils	300.6	367.4	714.0	0.3	0.4	0.4	CHN	14.9
5226	Other inorganic bases and metal oxides, hydroxides	386.5	250.3	619.6	0.4	0.2	0.3	UPV	34.6
7812	Motor vehicles for the transport of persons, n.e.s	349.3	350.5	557.1	0.3	0.3	0.3	KAZ	16.5
T 25	Total of top 25 items	82,152.4	81,004.3	151,005.0	79.8	80.7	83.5		
T All	Total, all items	103,008.0	100,364.0	180,915.0	100.0	100.0	100.0	SP*	18.0

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.8.B

Russian Federation
Top Import Categories and their Sources

Commodity		Import Value ($ millions)			Percent of Total Imports			Top Source 2004	
SITC	Description	2000	2002	2004	2000	2002	2004	Country	Percent
9310	Special transactions and commodities not classified	15,975.4	257.9	6,155.0	35.1	0.6	8.2	BLR	96.5
7812	Motor vehicles for the transport of persons, n.e.s	440.2	1,281.6	5,144.8	1.0	3.0	6.9	JPN	43.9
5429	Medicaments, n.e.s.	711.8	919.1	1,747.3	1.6	2.2	2.3	DEU	23.2
7284	Specialized machinery and mechanical appliances	285.7	474.1	1,089.1	0.6	1.1	1.5	DEU	34.8
7643	Transmission apparatus for radio-telephony, television	277.5	520.1	938.8	0.6	1.2	1.3	DEU	28.0
2852	Alumina (aluminium oxide), except artificial corundum	996.3	751.0	909.9	2.2	1.8	1.2	UKR	28.4
7641	Electrical apparatus for line telephony, line telegraphy	280.4	593.2	874.6	0.6	1.4	1.2	DEU	33.4
7843	Other parts and accessories of the motor vehicles	188.4	311.9	858.3	0.4	0.7	1.1	KOR	23.4
0123	Meat and edible offal of the poultry	366.3	815.6	663.4	0.8	1.9	0.9	UPV	59.7
0112	Meat of bovine animals, frozen	338.4	541.7	657.7	0.7	1.3	0.9	BRA	25.9
0122	Meat of swine, fresh, chilled or frozen	212.7	676.6	625.1	0.5	1.6	0.8	BRA	59.0
7526	Units for automatic data-processing machines	82.7	315.0	556.5	0.2	0.7	0.7	CHN	59.2
0611	Sugars, beet or cane, raw, in solid form	690.2	850.9	540.0	1.5	2.0	0.7	BRA	61.9
3330	Petroleum oils, oils from bituminous minerals, crude	616.0	444.4	539.8	1.4	1.1	0.7	KAZ	100.0
7751	Household-type laundry equipment, n.e.s.	42.4	237.4	521.5	0.1	0.6	0.7	I+S	38.4
2816	Iron ore agglomerates (pellets, briquettes, etc.)	154.2	150.4	519.8	0.3	0.4	0.7	KAZ	100.0
7649	Parts and accessories for television receivers	207.9	254.9	512.0	0.5	0.6	0.7	DEU	27.6
1121	Wine of fresh grapes (including fortified wine)	223.2	320.7	509.5	0.5	0.8	0.7	MDA	39.5
6417	Paper, paperboard, cellulose wadding, n.e.s.	127.6	252.7	497.7	0.3	0.6	0.7	UKR	24.1
1124	Spirits (other than ethyl alcohol and denatured spirits	131.6	224.9	481.9	0.3	0.5	0.6	UKR	25.0
3432	Natural gas, in the gaseous state	541.5	117.0	473.5	1.2	0.3	0.6	SP*	100.0
6791	Tubes, pipes and hollow profiles, seamless, of iron	302.0	191.0	472.8	0.7	0.5	0.6	UKR	40.0
7758	Electrothermic appliances, n.e.s.	61.6	224.2	464.1	0.1	0.5	0.6	CHN	33.0
1212	Tobacco, wholly or partly stemmed / stripped	260.6	389.4	428.9	0.6	0.9	0.6	UPV	24.5
0342	Fish, frozen (excluding fillets and minced fish)	110.2	229.0	426.0	0.2	0.5	0.6	N+S	53.0
T 25	Total of top 25 items	23,624.7	11,344.8	26,608.0	52.0	26.9	35.5		
T All	Total, all items	45,452.7	42,103.4	75,030.2	100.0	100.0	100.0	DEU	14.1

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.9.A

Tajikistan
Top Export Categories and their Destinations

Commodity		Export Value ($ millions)	Percent of Total Exports	Top Destination 2000	
SITC	Description	2000	2000	Country	Percent
6841	Aluminium and aluminium alloys, unwrought	370.6	53.5	NLD	48.1
3510	Electric current	91.9	13.3	UZB	97.8
2631	Cotton (other than linters), not carded or combed	75.6	10.9	S+L	46.4
7921	Helicopters	36.0	5.2	RUS	97.5
9710	Gold, non-monetary (excluding gold ores, concentrates)	24.2	3.5	S+L	93.6
7165	Generating sets	11.2	1.6	I+S	99.6
6522	Cotton fabrics, woven, unbleached	10.6	1.5	GBR	37.9
0579	Fruit, fresh or dried, n.e.s.	10.2	1.5	RUS	98.3
5931	Propellent powders and other prepared explosives	8.2	1.2	UZB	70.4
2634	Cotton, carded or combed	7.3	1.1	S+L	90.9
6513	Cotton yarn, other than sewing thread	6.8	1.0	BEL	34.7
121X	Tobacco, unmanufactured; tobacco refuse, n.e.s.	5.7	0.8	RUS	93.1
8412	Suits and ensembles	4.4	0.6	I+S	99.2
0591	Orange juice	3.2	0.5	RUS	94.2
7811	Vehicles specially designed for travelling on snow	2.4	0.3	I+S	95.3
0567	Vegetables, prepared or preserved, n.e.s.	2.2	0.3	RUS	96.0
0575	Grapes, fresh or dried	2.1	0.3	RUS	98.1
0574	Apples, fresh	1.7	0.2	RUS	95.0
7918	Railway or tramway freight and maintenance cars	1.1	0.2	KAZ	53.1
2221	Groundnuts (peanuts), not roasted or otherwise cooked	1.1	0.2	RUS	98.2
0545	Other fresh or chilled vegetables	0.9	0.1	RUS	99.0
6842	Aluminium and aluminium alloys, worked	0.9	0.1	RUS	64.5
5251	Radioactive chemical elements and radioactive isotopes	0.7	0.1	KAZ	100.0
7471	Pressure-reducing valves	0.6	0.1	RUS	89.8
6931	Stranded wire, ropes, cables, of iron, steel, or copper	0.6	0.1	RUS	99.3
T 25	Total of top 25 items	680.3	98.3		
T All	Total, all items	692.3	100.0	RUS	37.4

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.9.B

Tajikistan
Top Import Categories and their Sources

Commodity		Import Value ($ millions)	Percent of Total Imports	Top Source 2000	
SITC	Description	2000	2000	Country	Percent
5226	Other inorganic bases and metal oxides, hydroxides	198.7	30.9	UKR	36.2
3510	Electric current	118.8	18.5	UZB	85.8
334X	Petroleum oils, oils from bituminous minerals, n.e.s.	47.5	7.4	UZB	44.3
0411	Durum wheat, unmilled	36.3	5.6	KAZ	99.8
343X	Natural gas, whether or not liquefied, n.e.s.	35.3	5.5	UZB	100.0
3354	Petroleum bitumen, petroleum coke and mixtures, n.e.s.	29.8	4.6	RUS	49.4
5231	Fluorides; fluorosilicates, other complex fluorine salts	12.6	2.0	RUS	66.8
7811	Vehicles specially designed for travelling on snow	11.3	1.7	RUS	78.3
0611	Sugars, beet or cane, raw, in solid form	10.7	1.7	RUS	58.6
3353	Pitch and pitch coke, obtained from coal tar	9.7	1.5	KAZ	74.7
7247	Machinery (other than household-type laundry machines)	9.5	1.5	I+S	100.0
0461	Flour of wheat or of meslin	8.5	1.3	KAZ	85.6
5621	Mineral or chemical fertilizers, nitrogenous	8.4	1.3	UZB	79.5
4215	Sunflower seed or safflower oil and fractions thereof	6.0	0.9	UZB	73.9
7753	Dishwashing machines of the household type	5.3	0.8	I+S	99.0
7831	Motor vehicles for the transport of ten or more persons	3.2	0.5	DEU	70.6
6612	Portland, aluminous, slag cement, other similar cements	3.2	0.5	UZB	98.4
2482	Wood of coniferous species, sawn, sliced, or peeled	3.2	0.5	RUS	94.4
6513	Cotton yarn, other than sewing thread	2.5	0.4	UZB	100.0
5931	Propellent powders and other prepared explosives	2.5	0.4	RUS	96.6
7921	Helicopters	2.3	0.4	RUS	84.8
6623	Refractory bricks, other refractory construction materials	2.3	0.4	UKR	85.2
5334	Paints and varnishes (including enamels, lacquers	2.3	0.4	RUS	96.5
7643	Transmission apparatus for radio-telephony, television	2.0	0.3	CAN	32.2
591X	Insecticides,herbicides, fungicides, similar products, n.e.s.	1.9	0.3	DEU	78.9
T 25	Total of top 25 items	573.7	89.1		
T All	Total, all items	644.0	100.0	UZB	28.8

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.10.A

Turkmenistan
Top Export Categories and their Destinations

Commodity		Export Value ($ millions)		Percent of Total Exports		Top Destination 2000	
SITC	Description	1999	2000	1999	2000	Country	Percent
3432	Natural gas, in the gaseous state	388.9	1,244.4	32.8	49.7	RUS	78.8
334X	Petroleum oils, oils from bituminous minerals, n.e.s.	210.7	513.1	17.8	20.5	I+S	54.4
3330	Petroleum oils, oils from bituminous minerals, crude	141.5	241.9	11.9	9.7	I+S	46.1
2631	Cotton (other than linters), not carded or combed	207.8	223.5	17.5	8.9	S+L	39.0
6513	Cotton yarn, other than sewing thread	56.8	54.5	4.8	2.2	TUR	76.5
9310	Special transactions and commodities not classified	43.5	38.0	3.7	1.5	OTH	100.0
6524	Other woven fabrics, containing 85% or more of cotton	18.8	23.1	1.6	0.9	RUS	48.4
8454	T-shirts, singlets and other vests, knitted or crocheted	5.9	18.8	0.5	0.8	TUR	96.6
3510	Electric current	9.5	16.4	0.8	0.7	TJK	90.8
6552	Other knitted or crocheted fabrics, not coated, covered	15.1	14.9	1.3	0.6	TUR	79.5
8414	Trousers, bib and brace overalls, breeches and shorts	7.1	10.5	0.6	0.4	RUS	62.1
3354	Petroleum bitumen, petroleum coke and mixtures, n.e.s.	9.5	9.4	0.8	0.4	RUS	88.4
7923	Aeroplanes and other aircraft, mechanically-propelled	16.5	7.8	1.4	0.3	GEO	100.0
2632	Cotton linters	3.7	6.5	0.3	0.3	CHN	85.6
2882	Other non-ferrous base metal waste and scrap, n.e.s.	0.4	6.4	0.0	0.3	IRN	79.3
5222	Other chemical elements	2.8	6.3	0.2	0.3	RUS	55.2
3421	Propane, liquefied	1.1	4.4	0.1	0.2	AFG	42.7
2633	Cotton waste (including yarn waste and garnetted stock)	1.7	3.4	0.1	0.1	TUR	76.5
6522	Cotton fabrics, woven, unbleached	1.1	3.4	0.1	0.1	TUR	66.3
7929	Parts, n.e.s., of aircraft and associated equipment	1.0	3.1	0.1	0.1	GEO	95.1
2613	Raw silk (not thrown)	2.0	3.0	0.2	0.1	AFG	91.3
7935	Light vessels, fire-floats, dredgers, floating cranes	.	3.0		0.1	UPV	100.0
6523	Other woven fabrics, 85% or more of cotton, finished	.	3.0		0.1	TUR	88.8
8432	Suits, ensembles, jackets, blazers, trousers, shorts	0.9	2.9	0.1	0.1	TUR	98.1
2682	Other wool, not carded or combed	3.6	2.7	0.3	0.1	RUS	56.7
T 25	Total of top 25 items	1,150.1	2,464.6	96.9	98.4		
T All	Total, all items	1,187.0	2,505.5	100.0	100.0	RUS	41.1

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.10.B

Turkmenistan
Top Import Categories and their Sources

Commodity		Import Value ($ millions)		Percent of Total Imports		Top Source 2000	
SITC	Description	1999	2000	1999	2000	Country	Percent
9310	Special transactions and commodities not classified	95.9	105.3	6.5	5.9	OTH	100.0
7244	Machinery for textile yarns; parts, accessories thereof	16.9	48.3	1.1	2.7	JPN	63.8
6793	Other tubes and pipes (e.g., welded, riveted or si	4.4	41.8	0.3	2.3	UKR	87.0
7831	Motor vehicles for the transport of ten or more persons	9.6	34.1	0.6	1.9	TUR	31.2
7245	Machines for weaving, knitting, stoch-bonding, trimming	0.4	34.0	0.0	1.9	JPN	98.5
7649	Parts and accessories suitable for use solely or p	15.9	33.3	1.1	1.9	ARE	82.9
7212	Harvesting or threshing machinery; parts thereof, n.e.s.	6.7	30.5	0.5	1.7	UPV	86.9
0123	Meat and edible offal of the poultry	14.6	29.7	1.0	1.7	UPV	74.9
7148	Gas turbines, n.e.s.	11.4	28.4	0.8	1.6	RUS	100.0
676X	Iron and steel bars, rods, angles, and sections, n.e.s.	10.5	28.3	0.7	1.6	MDA	48.8
7822	Special-purpose motor vehicles, ex. for transport of persons	8.5	28.3	0.6	1.6	AZE	37.5
6791	Tubes, pipes and hollow profiles, seamless, of iron	22.4	28.0	1.5	1.6	UKR	62.5
7438	Parts for air or vacuum pumps, compressors, fans	7.1	27.0	0.5	1.5	F+M	91.1
7812	Motor vehicles for the transport of persons, n.e.s	15.7	26.1	1.1	1.5	DEU	38.7
7232	Mechanical shovels, excavators, shovel-loaders	3.8	26.1	0.3	1.5	JPN	40.1
7224	Wheeled tractors (except those used at railway stations)	10.1	25.6	0.7	1.4	BLR	85.7
5429	Medicaments, n.e.s.	22.0	25.3	1.5	1.4	IND	27.5
7478	Taps, cocks, valves and similar appliances, n.e.s.	12.8	25.3	0.9	1.4	RUS	48.4
0612	Other beet or cane sugar and chemically pure sucrose	23.1	24.9	1.6	1.4	UKR	29.4
0230	Butter and other fats and oils derived from milk	4.0	24.8	0.3	1.4	LVA	53.9
7611	Television receivers, colour (including video monitors)	15.5	24.5	1.0	1.4	ARE	85.5
334X	Petroleum oils, oils from bituminous minerals, n.e.s.	26.8	20.3	1.8	1.1	RUS	58.6
5621	Mineral or chemical fertilizers, nitrogenous	25.2	19.8	1.7	1.1	UZB	47.2
6255	Other new pneumatic tyres	6.9	18.8	0.5	1.1	UKR	64.3
7821	Motor vehicles for the transport of goods	4.9	18.1	0.3	1.0	RUS	45.3
T 25	Total of top 25 items	395.1	776.4	26.7	43.5		
T All	Total, all items	1,478.2	1,785.5	100.0	100.0	RUS	14.3

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.11.A

Ukraine
Top Export Categories and their Destinations

Commodity		Export Value ($ millions)			Percent of Total Exports			Top Destination 2004	
SITC	Description	2000	2002	2004	2000	2002	2004	Country	Percent
673X	Flat-rolled products of iron or non-alloy steel, n.e.s.	0.0	1,391.4	3,289.0	0.0	7.8	10.1	TUR	18.7
6726	Semi-finished products of iron or non-alloy steel	976.7	908.8	1,896.8	6.7	5.1	5.8	I+S	21.4
334X	Petroleumoils, oils, from bituminous minerals, n.e.s.	338.3	1,128.0	1,685.0	2.3	6.3	5.2	I+S	22.9
676X	Iron and steel bars, rods, angles, shapes, n.e.s.	.	594.4	1,083.7	.	3.3	3.3	DZA	32.4
6727	Semi-finished products of iron or non-alloy steel	373.4	701.8	1,062.5	2.6	3.9	3.3	THA	13.1
7919	Railway or tramway track fixtures and fittings	49.5	94.5	830.0	0.3	0.5	2.5	UPV	65.3
6715	Other ferro-alloys (excluding radioactive ferro-alloys)	265.5	387.1	709.6	1.8	2.2	2.2	RUS	21.1
5621	Mineral or chemical fertilizers, nitrogenous	389.6	396.6	704.5	2.7	2.2	2.2	TUR	19.6
6791	Tubes, pipes and hollow profiles, seamless, of iron	322.0	240.4	671.2	2.2	1.3	2.1	RUS	28.0
3250	Coke and semi-coke (including char) of coal	54.0	66.8	642.4	0.4	0.4	2.0	ROU	26.9
6761	Bars and rods, hot-rolled, in irregularly wound coils	325.4	375.3	601.0	2.2	2.1	1.8	SCG	12.6
7918	Railway or tramway freight and maintenance cars	33.5	197.2	574.5	0.2	1.1	1.8	RUS	54.3
4215	Sunflower seed or safflower oil and fractions thereof	233.0	334.6	528.2	1.6	1.9	1.6	S+L	18.6
2823	Other ferrous waste and scrap	356.2	318.1	478.6	2.4	1.8	1.5	TUR	56.0
8746	Automatic regulating or controlling instruments	16.4	52.5	446.2	0.1	0.3	1.4	DEU	48.3
5226	Other inorganic bases and metal oxides, hydroxides	233.5	183.0	414.9	1.6	1.0	1.3	UPV	21.5
3432	Natural gas, in the gaseous state	156.2	115.7	408.2	1.1	0.6	1.2	DEU	53.2
6768	Angles, shapes and sections of iron and steel	158.1	180.4	386.2	1.1	1.0	1.2	RUS	43.7
0430	Barley, unmilled	82.5	233.5	369.5	0.6	1.3	1.1	SAU	32.0
9310	Special transactions and commodities not classified	347.4	205.9	360.4	2.4	1.1	1.1	OTH	99.3
6712	Pig-iron and spiegeleisen, in pigs, blocks	178.6	113.4	299.8	1.2	0.6	0.9	I+S	54.5
2815	Iron ore and concentrates, not agglomerated	239.8	195.4	297.6	1.6	1.1	0.9	CZE	37.1
0412	Other wheat (including spelt) and meslin, unmilled	18.1	671.0	287.7	0.1	3.7	0.9	ESP	15.6
2816	Iron ore agglomerates (sinters, pellets, briquette	163.9	157.8	284.1	1.1	0.9	0.9	AUT	26.6
6997	Articles, n.e.s., of copper, nickel, aluminium	1.8	92.3	267.6	0.0	0.5	0.8	HKG	37.0
T 25	Total of top 25 items	5,313.2	9,335.7	18,579.1	36.5	52.1	56.9		
T All	Total, all items	14,572.5	17,927.4	32,666.1	100.0	100.0	100.0	RUS	17.8

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 6.11.B

Ukraine
Top Import Categories and their Sources

Commodity		Import Value ($ millions)			Percent of Total Imports			Top Source 2004	
SITC	Description	2000	2002	2004	2000	2002	2004	Country	Percent
3330	Petroleum oils and oils obtained from bituminous	1,090.6	2,430.8	4,374.4	7.8	14.3	15.1	RUS	96.2
3432	Natural gas, in the gaseous state	3,323.9	3,521.1	3,648.5	23.8	20.7	12.6	TKM	54.1
7812	Motor vehicles for the transport of persons, n.e.s	168.2	475.5	897.5	1.2	2.8	3.1	JPN	31.8
3212	Other coal	248.9	200.9	894.6	1.8	1.2	3.1	RUS	95.3
9310	Special transactions and commodities not classified	379.6	225.2	783.0	2.7	1.3	2.7	OTH	97.3
334X	Petroleumoils, oils, from bituminous minerals, n.e.s.	1,270.3	379.5	512.8	9.1	2.2	1.8	RUS	62.3
5429	Medicaments, n.e.s.	173.0	295.1	473.3	1.2	1.7	1.6	DEU	22.5
7842	Bodies (including cabs), for motor vehicles	45.7	80.2	427.2	0.3	0.5	1.5	POL	34.4
7187	Nuclear reactors, and parts thereof; fuel elements	228.7	249.3	421.8	1.6	1.5	1.5	RUS	94.7
7843	Other parts and accessories of the motor vehicles	61.0	83.2	291.2	0.4	0.5	1.0	RUS	45.1
7641	Electrical apparatus for line telephony	56.4	69.0	258.3	0.4	0.4	0.9	SWE	32.8
7821	Motor vehicles for the transport of goods	50.0	116.1	253.1	0.4	0.7	0.9	RUS	47.2
3250	Coke and semi-coke (including char) of coal	4.3	78.2	232.3	0.0	0.5	0.8	RUS	98.9
7643	Transmission apparatus for radio-telephony, television	34.9	97.4	225.9	0.3	0.6	0.8	SWE	37.4
5711	Polyethylene	65.2	85.8	191.4	0.5	0.5	0.7	RUS	23.2
2877	Manganese ores and concentrates	19.7	63.1	177.4	0.1	0.4	0.6	GAB	34.4
7132	Internal combustion piston engines for propelling	49.3	41.6	174.2	0.4	0.2	0.6	RUS	36.6
7284	Machinery and mechanical appliances, specialized	88.6	86.5	161.7	0.6	0.5	0.6	DEU	24.7
1212	Tobacco, wholly or partly stemmed/stripped	85.7	107.4	157.9	0.6	0.6	0.5	BRA	24.8
2851	Aluminium ores and concentrates	189.3	126.4	146.8	1.4	0.7	0.5	GIN	30.3
6715	Other ferro-alloys (excluding radioactive ferro-alloys)	38.4	43.1	142.6	0.3	0.3	0.5	CHN	40.9
6842	Aluminium and aluminium alloys, worked	60.4	68.7	128.0	0.4	0.4	0.4	RUS	38.5
7452	Dishwashing machines (other than household-type)	39.1	104.0	126.9	0.3	0.6	0.4	I+S	39.2
6417	Paper, paperboard, cellulose wadding and webs	46.0	132.2	124.9	0.3	0.8	0.4	POL	37.6
5829	Other plates, sheets, film, foil and strip, of plastic	15.4	51.1	124.4	0.1	0.3	0.4	I+S	38.8
T 25	Total of top 25 items	7,832.7	9,211.6	15,350.0	56.1	54.3	52.9		
T All	Total, all items	13,956.0	16,975.9	28,996.8	100.0	100.0	100.0	RUS	40.2

Note: Country names for the country codes are in Appendix Table 7.

Appendix 7

County Codes and Names

Code	Country Name	Code	Country Name	Code	Country Name
ABW	Aruba	COK	Cook Islands	GUY	Guyana
AFG	Afghanistan	COL	Colombia	HKG	Hong Kong (SA)
AGO	Angola	COM	Comoros	HND	Honduras
AIA	Anguilla	CPV	Cape Verde	HRV	Croatia
ALA	Åland Islands	CRI	Costa Rica	HTI	Haiti
ALB	Albania	CUB	Cuba	HUN	Hungary
AND	Andorra	CYM	Cayman Islands	I+S	Italy + San Marino
ANT	Netherlands Antilles	CYP	Cyprus	I-S	India minus Sikkim
ARE	United Arab Emirates	CZE	Czech Republic	IDN	Indonesia
ARG	Argentina	DEU	Germany	IND	India
ARM	Armenia	DJI	Djibouti	IRL	Ireland
AS*	Other Asia	DMA	Dominica	IRN	Iran (Islamic Republic)
ASM	American Samoa	DNK	Denmark	IRQ	Iraq
ATG	Antigua and Barbuda	DOM	Dominican Republic	ISL	Iceland
AUS	Australia	DZA	Algeria	ISR	Israel
AUT	Austria	ECU	Ecuador	ITA	Italy
AZE	Azerbaijan	EGY	Egypt	JAM	Jamaica
BDI	Burundi	ERI	Eritrea	JOR	Jordan
BEL	Belgium	ESH	Western Sahara	JPN	Japan
BEN	Benin	ESP	Spain	KAZ	Kazakhstan
BFA	Burkina Faso	EST	Estonia	KEN	Kenya
BGD	Bangladesh	ETH	Ethiopia	KGZ	Kyrgyzstan
BGR	Bulgaria	F+M	France + Monaco	KHM	Cambodia
BHR	Bahrain	FIN	Finland	KIR	Kiribati
BHS	Bahamas	FJI	Fiji	KNA	Saint Kitts and Nevis
BIH	Bosnia and Herzegovina	FLK	Falkland Islands	KOR	Republic of Korea
BLR	Belarus	FRA	France	KWT	Kuwait
BLZ	Belize	FRO	Faeroe Islands	LAO	Lao People's Democratic
BMU	Bermuda	FSM	Micronesia	LBN	Lebanon
BO*	British Indian Ocean	GAB	Gabon	LBR	Liberia
BOL	Bolivia	GBR	United Kingdom	LBY	Libya
BRA	Brazil	GEO	Georgia	LCA	Saint Lucia
BRB	Barbados	GHA	Ghana	LIE	Liechtenstein
BRN	Brunei Darussalam	GIB	Gibraltar	LKA	Sri Lanka
BTN	Bhutan	GIN	Guinea	LSO	Lesotho
BWA	Botswana	GLP	Guadeloupe	LTU	Lithuania
CAF	Central African Republic	GMB	Gambia	LUX	Luxembourg
CAN	Canada	GNB	Guinea-Bissau	LVA	Latvia
CHE	Switzerland	GNQ	Equatorial Guinea	MAC	Macao (SA)
CHL	Chile	GRC	Greece	MAR	Morocco
CHN	China	GRD	Grenada	MCO	Monaco
CIV	Côte d'Ivoire	GRL	Greenland	MDA	Republic of Moldova
CMR	Cameroon	GTM	Guatemala	MDG	Madagascar
COD	Democratic Rep. of Congo	GUF	French Guiana	MDV	Maldives
COG	Congo	GUM	Guam	MEX	Mexico

Appendix 7, continued next page

Appendix 7, continued

County Codes and Names

Code	Country Name	Code	Country Name	Code	Country Name
MHL	Marshall Islands	PYF	French Polynesia	UGA	Uganda
MKD	FYR of Macedonia	QAT	Qatar	UKR	Ukraine
MLI	Mali	REU	Réunion	UPV	USA+PuertoRico+VI
MLT	Malta	ROU	Romania	URY	Uruguay
MMR	Myanmar	RUS	Russian Federation	USA	United States (USA)
MNG	Mongolia	RWA	Rwanda	UZB	Uzbekistan
MNP	Northern Mariana Islands	S+L	Switzerland+Liechtenstein	VAT	Holy See
MOZ	Mozambique	SAU	Saudi Arabia	VCT	Saint Vincent & Gr
MRT	Mauritania	SCG	Serbia and Montenegro	VEN	Venezuela
MSR	Montserrat	SDN	Sudan	VGB	British Virgin Islands
MTQ	Martinique	SEN	Senegal	VIR	U. S. Virgin Islands
MUS	Mauritius	SGP	Singapore	VNM	Viet Nam
MWI	Malawi	SHN	Saint Helena	VUT	Vanuatu
MYS	Malaysia	SJM	Svalbard & Jan Mayen	WLF	Wallis & Futuna Island
MYT	Mayotte	SLB	Solomon Islands	WSM	Samoa
N+S	Norway + Svalbard	SLE	Sierra Leone	YEM	Yemen
NAM	Namibia	SLV	El Salvador	ZAF	South Africa
NCL	New Caledonia	SMR	San Marino	ZMB	Zambia
NER	Niger	SOM	Somalia	ZWE	Zimbabwe
NFK	Norfolk Island	SP*	Special Categories		
NGA	Nigeria	SPM	Saint Pierre and Miquelo		
NIC	Nicaragua	STP	Sao Tome and Principe		
NIU	Niue	SUR	Suriname		
NLD	Netherlands	SVK	Slovakia		
NOR	Norway	SVN	Slovenia		
NPL	Nepal	SWE	Sweden		
NRU	Nauru	SWZ	Swaziland		
NZL	New Zealand	SYC	Seychelles		
OA*	Other Africa	SYR	Syrian Arab Republic		
OE*	Other Europe	TCA	Turks and Caicos Islands		
OMN	Oman	TCD	Chad		
OTH	Other Areas NEC	TGO	Togo		
PAK	Pakistan	THA	Thailand		
PAN	Panama	TJK	Tajikistan		
PCN	Pitcairn	TKL	Tokelau		
PER	Peru	TKM	Turkmenistan		
PHL	Philippines	TLS	Timor-Leste		
PLW	Palau	TON	Tonga		
PNG	Papua New Guinea	TOT	World Total		
POL	Poland	TTO	Trinidad and Tobago		
PRI	Puerto Rico	TUN	Tunisia		
PRK	Democratic People's Korea	TUR	Turkey		
PRT	Portugal	TUV	Tuvalu		
PRY	Paraguay	TZA	United Republic of Tanza		
PSE	Occupied Palestinian Ter.	U+P	USA Pacific Isl		

Appendix Table 8.1

Armenia
Fastest Growing Manufacturing Exports and their Destinations

SITC	Commodity Description	Export Value ($ thousands) 2000	2002	2004	Percent of Total Exports 2000	2002	2004	Growth Rate 2000-04	Top Destination 2004 Country	Percent
6531	Fabrics, woven, of synthetic filament yarn	.	.	2,174.6	.	.	0.5	---	UPV	97.8
6577	Wadding, wicks, and textile fabrics	.	0.4	1,283.1	.	0.0	0.3	---	AS*	43.1
6735	Flat-rolled products of iron or non-alloy steel	.	.	724.5	.	.	0.2	---	IRN	98.1
6793	Other tubes and pipes (e.g., welded, riveted)	.	.	2,250.8	.	.	0.5	---	IRN	83.8
6999	Semi-manufactures and articles of tungsten	.	190.1	7,689.5	.	0.1	1.8	---	DEU	100.0
7918	Railway or tramway freight and maintenance cars	.	.	795.0	.	.	0.2	---	RUS	51.8
8998	Smallwares and toilet articles, n.e.s.; sieves	.	.	543.5	.	.	0.1	---	UPV	91.7
6996	Articles of iron or steel, n.e.s.	0.0	144.3	523.4	0.0	0.1	0.1	10,000+	GEO	48.4
7783	Electrical equipment, n.e.s., for internal combustion	0.0	1.5	478.7	0.0	0.0	0.1	10,000+	UPV	93.2
6589	Made-up articles of textile materials, n.e.s.	3.5	9.6	667.8	0.0	0.0	0.2	10,000+	UPV	82.9
6552	Other knitted or crocheted fabrics	9.7	.	835.0	0.0	.	0.2	8,474.9	CAN	73.3
6911	Structures (excluding prefabricated buildings)	10.6	.	875.2	0.0	.	0.2	8,189.3	IRN	66.9
8731	Gas, liquid or electricity supply	9.0	465.3	577.1	0.0	0.2	0.1	6,305.3	RUS	93.4
7782	Electric filament or discharge lamps	10.8	125.0	689.2	0.0	0.1	0.2	6,271.1	GEO	60.5
8742	Drawing, marking-out or mathematical calculating instr.	26.1	147.0	1,161.3	0.0	0.1	0.3	4,343.6	UKR	70.2
8859	Time-measuring equipment and accessories, n.e.s.	39.5	1.8	1,147.8	0.0	0.0	0.3	2,808.1	S+L	93.0
7732	Electrical insulating equipment	20.6	127.6	577.1	0.0	0.1	0.1	2,706.7	RUS	98.4
7165	Generating sets	30.8	648.3	607.5	0.0	0.3	0.1	1,870.5	RUS	99.1
8455	Brassières, girdles, corsets, braces, suspenders	2,096.7	.	25,325.0	1.2	.	6.0	1,107.9	I+S	99.3
6299	Hard rubber; articles of hardened rubber	40.4	13.3	458.2	0.0	0.0	0.1	1,035.5	SYR	89.2
6612	Portland cement, aluminous cement, slag cement	631.9	308.2	6,480.2	0.4	0.1	1.5	925.6	GEO	82.9
7281	Machine tools specialized for particular industries	176.7	373.9	1,614.4	0.1	0.2	0.4	813.8	CHN	50.8
6715	Other ferro-alloys (excluding radioactive ferro-alloys)	7,110.9	8,799.0	64,732.0	4.1	4.1	15.3	810.3	DEU	46.7
7373	Electric (including electrically heated gas)	102.1	154.8	869.5	0.1	0.1	0.2	751.6	UPV	90.0
8928	Printed matter, n.e.s.	125.9	141.0	775.4	0.1	0.1	0.2	516.1	GBR	32.3
T 25	Total of top 25 items	10,445.0	11,651.0	123,857.0	6.0	5.5	29.3	1,085.8		
T All	Total, all manufactures	174,039.0	212,398.0	423,352.0	100.0	100.0	100.0	143.3	BEL	25.3

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 8.2

Azerbaijan
Fastest Growing Manufacturing Exports and their Destinations

SITC	Commodity Description	Export Value ($ thousands) 2000	2002	2004	Percent of Total Exports 2000	2002	2004	Growth Rate 2000-04	Top Destination 2004 Country	Percent
5751	Polymers of propylene or of other olefins	.	373.0	471.3	.	0.3	0.1	--	IRN	59.4
6341	Veneer sheets and sheets for plywood	.	207.3	455.6	.	0.2	0.1	--	TUR	79.9
6513	Cotton yarn, other than sewing thread	.	203.1	3,267.7	.	0.2	1.0	--	RUS	100.0
6531	Fabrics, woven, of synthetic filament yarn	.	84.4	1,406.4	.	0.1	0.4	--	RUS	99.7
7918	Railway or tramway freight and maintenance cars	.	818.5	995.4	.	0.7	0.3	--	RUS	100.0
7937	Tugs and pusher craft	.	151.6	2,501.6	.	0.1	0.8	--	TKM	100.0
6416	Paper and paperboard, corrugated, crêped, crinkled	0.0	.	813.5	0.0	.	0.2	10,000+	RUS	100.0
6727	Semi-finished products of iron or non-alloy steel	0.6	5,065.6	19,109.0	0.0	4.5	5.8	10,000+	IRN	100.0
6768	Angles, shapes and sections (excluding rails)	7.5	491.2	18,031.0	0.0	0.4	5.5	10,000+	IRN	97.3
6726	Semi-finished products of iron or non-alloy steel	4.5	196.8	1,892.2	0.0	0.2	0.6	10,000+	IRN	78.2
7935	Light vessels, fire-floats, dredgers	614.7	407.0	136,301.0	0.5	0.4	41.4	10,000+	TKM	100.0
6421	Cartons, boxes, cases, bags & packing containers	19.2	15.3	1,665.1	0.0	0.0	0.5	8,574.9	RUS	98.5
8218	Parts of furniture of metal, wood & other materials	11.3	15.4	756.8	0.0	0.0	0.2	6,621.7	GEO	88.6
6956	Knives and cutting blades, for machines	24.4	1,605.7	1,237.1	0.0	1.4	0.4	4,969.5	N+S	34.8
5822	Other plates, sheets, film, foil and strip, of plastic	37.0	526.3	825.8	0.0	0.5	0.3	2,133.4	GEO	32.8
8931	Articles for the conveyance or packing of goods	82.8	57.6	1,281.8	0.1	0.1	0.4	1,447.9	GEO	82.1
5741	Polyacetals and other polyethers	397.6	512.1	4,905.8	0.4	0.5	1.5	1,133.8	RUS	92.5
676X	Iron and steel bars, n.e.s	257.5	7,976.7	3,054.2	0.2	7.2	0.9	1,086.2	IRN	49.2
5429	Medicaments, n.e.s.	172.6	3,513.9	1,775.4	0.2	3.2	0.5	928.8	GEO	47.5
7465	Other cylindrical roller bearings	45.2	147.8	454.4	0.0	0.1	0.1	905.1	RUS	100.0
8932	Builders' ware of plastics	86.7	80.3	863.6	0.1	0.1	0.3	896.3	RUS	80.0
8743	Instruments and apparatus for measuring	69.9	400.9	610.7	0.1	0.4	0.2	773.2	RUS	99.7
8747	Oscilloscopes, spectrum analyzers	42.8	30.5	343.4	0.0	0.0	0.1	701.9	IRN	98.4
5542	Organic surface-active agents (other than soap)	107.6	179.6	764.0	0.1	0.2	0.2	610.3	GEO	90.5
8110	Prefabricated buildings	193.0	152.1	967.7	0.2	0.1	0.3	401.3	GEO	52.3
T 25	Total of top 25 items	2,174.9	23,213.0	204,749.0	1.9	20.8	62.1	9,314.1		
T All	Total, all manufactures	112,554.0	111,465.0	329,504.0	100.0	100.0	100.0	192.8	TKM	43.4

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 8.3

Republic of Belarus
Fastest Growing Manufacturing Exports and their Destinations

SITC	Commodity Description	Export Value ($ thousands) 2000	2002	2004	Percent of Total Exports 2000	2002	2004	Growth Rate 2000-04	Top Destination 2004 Country	Percent
851X	Footwear, n.e.s.	0.0	42,034.0	50,092.0	0.0	0.8	0.6	10,000+	RUS	100.0
78XX	Transport equipment, n.e.s.	.	40,332.0	90,032.0	.	0.8	1.1	--	RUS	100.0
7XXX	Machinnes, transport equipment, n.e.s.	.	25,409.0	75,643.0	.	0.5	0.9	--	RUS	100.0
84XX	Apparel, n.e.s.	.	34,090.0	62,265.0	.	0.6	0.8	--	RUS	100.0
5121	Acyclic monohydric alcohols	6.6	4,167.3	11,888.0	0.0	0.1	0.1	10,000+	POL	79.9
5156	Lactams; heterocyclic compounds with oxygen	3,471.9	70,839.0	102,123.0	0.1	1.3	1.2	2,841.4	CHN	93.4
7414	Refrigerators, freezers & similar equipment	942.1	9,260.4	26,892.0	0.0	0.2	0.3	2,754.6	RUS	97.4
7447	Continuous-action elevators and conveyors, for goods	518.9	824.0	9,329.8	0.0	0.0	0.1	1,698.0	F+M	75.5
6741	Flat-rolled products of iron or non-alloy steel	674.6	1,127.7	10,917.0	0.0	0.0	0.1	1,518.2	RUS	99.6
6912	Aluminium structures (exc. prefabricated buildings)	1,848.0	5,329.0	23,634.0	0.0	0.1	0.3	1,178.9	RUS	84.8
8943	Articles for funfair, table or parlour games	1,420.7	2,155.0	16,469.0	0.0	0.0	0.2	1,059.2	RUS	96.6
7239	Parts of civil engineering plant & equipment	1,633.8	2,883.7	10,495.0	0.0	0.1	0.1	542.4	RUS	83.2
5112	Cyclic hydrocarbons	1,360.1	790.7	8,659.3	0.0	0.0	0.1	536.7	BGR	49.1
6794	Other tubes, pipes and hollow profiles	8,495.5	21,223.0	53,073.0	0.2	0.4	0.6	524.7	RUS	46.0
7283	Machinery for mineral substances & products	2,128.6	13,318.0	12,580.0	0.0	0.3	0.2	491.0	RUS	74.2
8218	Parts of furniture of metal, wood & other materials	4,475.0	10,741.0	25,078.0	0.1	0.2	0.3	460.4	RUS	81.7
8122	Ceramic sinks, wash-basins, wash-basin pedestals	1,682.2	3,496.2	9,061.3	0.0	0.1	0.1	438.7	RUS	85.3
6911	Structures (excluding prefabricated buildings)	4,105.0	8,784.1	21,780.0	0.1	0.2	0.3	430.6	RUS	90.8
7448	Lifting, handling, loading or unloading machinery	6,849.0	11,365.0	35,553.0	0.1	0.2	0.4	419.1	RUS	84.4
676X	Iron and steel bars, n.e.s.	70,515.0	128,225.0	337,324.0	1.4	2.4	4.1	378.4	RUS	61.1
5533	Preparations for use on the hair	5,594.0	12,520.0	25,591.0	0.1	0.2	0.3	357.5	RUS	88.7
6359	Manufactured articles of wood, n.e.s.	2,446.2	3,956.7	10,529.0	0.1	0.1	0.1	330.4	RUS	32.4
6761	Bars and rods, hot-rolled, of iron & steel	5,810.3	27,481.0	22,908.0	0.1	0.5	0.3	294.3	POL	30.4
6955	Blades for saws of all kinds	2,270.0	5,462.2	8,572.0	0.0	0.1	0.1	277.6	NLD	51.5
6114	Other bovine leather and equine leather	15,197.0	21,956.0	56,768.0	0.3	0.4	0.7	273.5	I+S	53.0
T 25	Total of top 25 items	141,444.0	507,769.0	1,117,257.4	2.9	9.6	13.6	689.9		
T All	Total, all manufactures	4,876,840.1	5,271,718.2	8,240,551.1	100.0	100.0	100.0	69.0	RUS	59.9

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 8.4

Georgia
Fastest Growing Manufacturing Exports and their Destinations

SITC	Commodity Description	Export Value ($ thousands) 2000	2002	2004	Percent of Total Exports 2000	2002	2004	Growth Rate 2000-04	Top Destination 2004 Country	Percent
5162	Aldehyde-, ketone- and quinone-function compounds	.	.	1,511.7	.	.	0.6	--	RUS	100.0
7423	Concrete pumps	.	.	250.8	.	.	0.1	--	TUR	99.7
7426	Centrifugal pumps, n.e.s.	.	6.0	390.5	.	0.0	0.2	--	TKM	76.8
7862	Trailers and semi-trailers for the transport of goods	.	8.1	251.7	.	0.0	0.1	--	TUR	97.6
7916	Railway or tramway coaches, vans and trucks	.	.	1,625.3	.	.	0.7	--	TKM	100.0
8999	Manufactured goods, n.e.s.	.	0.0	250.0	.	0.0	0.1	--	TKM	100.0
8448	Slips, petticoats, briefs, panties, nightdresses	0.1	.	750.9	0.0	.	0.3	10,000+	UPV	96.3
6252	Tyres, pneumatic, new, of a kind used on buses	0.4	.	833.9	0.0	.	0.4	10,000+	ARM	97.6
8743	Instruments & apparatus for measuring liquids & gases	0.9	88.4	415.0	0.0	0.1	0.2	10,000+	GBR	86.9
6741	Flat-rolled products of iron or non-alloy steel	2.9	.	567.2	0.0	.	0.2	10,000+	ARM	100.0
5249	Inorganic chemical products, n.e.s.	3.7	.	561.7	0.0	.	0.2	10,000+	NLD	78.0
5532	Beauty or make-up preparations	13.5	18.3	1,424.9	0.0	0.0	0.6	10,000+	ARM	78.5
8974	Other articles of precious metal or of metal clad	16.3	79.5	1,353.9	0.0	0.1	0.6	8,227.1	GBR	85.2
7724	Electrical apparatus for switching	3.2	19.0	258.2	0.0	0.0	0.1	7,846.5	RUS	52.5
7131	Internal combustion piston engines for aircraft	32.8	32.9	2,137.8	0.0	0.0	0.9	6,423.5	TKM	99.2
6794	Other tubes, pipes and hollow profiles	45.9	25.5	2,836.6	0.0	0.0	1.2	6,080.2	TKM	65.0
7224	Wheeled tractors, except electrical work trucks	5.0	2.8	303.0	0.0	0.0	0.1	5,952.5	TUR	89.1
7924	Aeroplanes and other aircraft, mechanically-propelled	300.0	650.0	11,400.0	0.3	0.6	4.8	3,700.0	TKM	100.0
8741	Compasses; other navigational instruments	21.7	40.8	812.0	0.0	0.0	0.3	3,647.1	CHN	38.7
6624	Non-refractory ceramic bricks, tiles, pipes	12.7	14.1	419.5	0.0	0.0	0.2	3,202.6	ARM	91.4
7921	Helicopters	700.0	940.4	17,610.0	0.6	0.8	7.5	2,415.7	TKM	100.0
7424	Reciprocating positive displacement pumps, n.e.s.	24.1	8.2	426.0	0.0	0.0	0.2	1,666.7	DEU	98.8
6793	Other tubes and pipes (e.g., welded, riveted)	48.1	72.0	758.7	0.0	0.1	0.3	1,476.1	AZE	51.1
6612	Portland cement, aluminous cement, slag cement	478.1	56.3	4,671.1	0.4	0.0	2.0	877.0	AZE	100.0
7373	Electric or laser soldering, brazing or welding machines	124.5	15.0	1,201.3	0.1	0.0	0.5	865.2	F+M	95.8
T 25	Total of top 25 items	1,833.8	2,077.3	53,022.0	1.7	1.8	22.5	2,791.3		
T All	Total, all manufactures	108,341.0	115,077.0	235,257.0	100.0	100.0	100.0	117.1	TKM	39.1

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 8.5

Kazakhstan
Fastest Growing Manufacturing Exports and their Destinations

SITC	Commodity Description	Export Value ($ thousands) 2000	2001	2003	Percent of Total Exports 2000	2001	2003	Growth Rate 2000-03	Top Destination 2003 Country	Percent
6115	Sheep- or lambskin leather, without wool	.	278.6	8,700.8	.	0.0	0.4	--	CHN	96.8
6727	Semi-finished products of iron or non-alloy steel	2.2	1,397.3	27,230.0	0.0	0.1	1.3	10,000+	IRN	99.9
8973	Jewellery of gold, silver or platinum group metals	7.3	.	4,555.1	0.0	.	0.2	10,000+	UPV	95.5
6114	Other bovine leather and equine leather	149.3	3,225.7	50,716.0	0.0	0.2	2.4	10,000+	CHN	91.3
5721	Polystyrene	12.1	132.1	2,645.5	0.0	0.0	0.1	10,000+	RUS	97.9
5622	Mineral or chemical fertilizers, phosphatic	43.5	783.4	3,539.9	0.0	0.1	0.2	8,037.7	TJK	71.8
7937	Tugs and pusher craft	268.9	822.0	3,849.0	0.0	0.1	0.2	1,331.4	RUS	100.0
6292	Conveyor or transmission belts or belting	363.1	2,105.5	5,049.5	0.0	0.1	0.2	1,290.7	RUS	77.8
5629	Fertilizers, n.e.s.	1,189.4	3,550.8	14,214.0	0.1	0.2	0.7	1,095.1	CHN	94.4
7932	Ships, boats & other vessels (other than pleasure)	1,517.4	34,631.0	16,116.0	0.1	2.4	0.8	962.1	RUS	82.2
6996	Articles of iron or steel, n.e.s.	1,585.0	2,949.8	16,604.0	0.1	0.2	0.8	947.6	CHN	72.5
7281	Machine tools specialized for particular industries	291.7	154.3	2,858.7	0.0	0.0	0.1	880.1	CHN	96.6
6712	Pig-iron and spiegeleisen, in pigs, blocks	361.3	992.8	3,487.9	0.0	0.1	0.2	865.4	CHN	100.0
7189	Engines and motors, n.e.s.	517.6	1,766.5	4,246.5	0.0	0.1	0.2	720.4	RUS	44.9
7921	Helicopters	495.1	433.6	3,919.8	0.0	0.0	0.2	691.7	RUS	48.9
6921	Reservoirs, tanks, vats and similar containers	600.1	920.4	4,138.4	0.0	0.1	0.2	589.6	TKM	98.7
7232	Mechanical shovels, excavators and shovel-loaders	406.7	237.1	2,631.0	0.0	0.0	0.1	546.9	AZE	83.7
6522	Cotton fabrics, woven, unbleached	588.9	715.2	3,491.2	0.0	0.0	0.2	492.8	I+S	50.7
6421	Cartons, boxes, cases, bags & packing containers	427.8	3,361.6	2,447.4	0.0	0.2	0.1	472.1	RUS	62.2
5541	Soap; organic surface-active products	502.0	3,542.6	2,736.3	0.0	0.2	0.1	445.1	KGZ	43.4
5249	Inorganic chemical products, n.e.s.	1,448.3	4,524.8	6,273.0	0.1	0.3	0.3	333.1	RUS	46.1
6956	Knives and cutting blades, for machines	1,445.7	3,582.3	6,001.6	0.1	0.2	0.3	315.1	NLD	42.1
7812	Motor vehicles for the transport of persons, n.e.s	2,013.7	1,819.4	8,143.1	0.1	0.1	0.4	304.4	TJK	60.9
5222	Other chemical elements	11,841.0	16,575.0	46,148.0	0.8	1.1	2.2	289.7	POL	34.0
6794	Other tubes, pipes and hollow profiles	2,732.7	4,539.2	9,326.3	0.2	0.3	0.4	241.3	RUS	24.0
T 25	Total of top 25 items	28,811.2	93,041.6	259,069.6	1.8	6.4	12.2	799.2		
T All	Total, all manufactures	1,577,500.6	1,452,025.4	2,117,640.2	100.0	100.0	100.0	34.2	CHN	24.4

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 8.6

Kyrgyzstan
Fastest Growing Manufacturing Exports and their Destinations

SITC	Commodity Description	Export Value ($ thousands) 1999	2002	2004	Percent of Total Exports 1999	2002	2004	Growth Rate 1999-2004	Top Destination 2004 Country	Percent
5251	Radioactive chemical elements & isotopes	.	.	14,600.0	.	.	7.9	---	CAN	51.2
6114	Other bovine leather & equine leather, without hair	.	2,031.6	1,184.0	.	2.0	0.6	---	CHN	81.4
6115	Sheep- or lambskin leather, without wool	.	777.0	1,127.7	.	0.8	0.6	---	CHN	91.0
6532	Fabrics, woven, of synthetic staple fibres	.	1,953.0	2,400.1	.	2.0	1.3	---	TJK	92.9
6534	Fabrics, woven, of synthetic staple fibres	.	31.6	1,148.1	.	0.0	0.6	---	LVA	56.0
6581	Sacks and bags, of textile materials	.	445.6	1,029.0	.	0.4	0.6	---	KAZ	93.2
6583	Blankets and travelling-rugs (other than electric)	.	182.3	420.2	.	0.2	0.2	---	RUS	62.1
6589	Made-up articles of textile materials, n.e.s.	.	101.2	492.8	.	0.1	0.3	---	UKR	46.9
6594	Carpets and other textile floor coverings, tufted	.	759.2	1,430.4	.	0.8	0.8	---	KAZ	97.2
6770	Railway or tramway track construction material	.	63.9	441.1	.	0.1	0.2	---	AFG	100.0
7133	Internal combustion piston engines, marine propulsion	.	0.8	828.7	.	0.0	0.4	---	BEL	100.0
8414	Men's or boys' trousers, overalls, breeches and shorts	.	2,321.4	5,803.4	.	2.3	3.1	---	RUS	84.8
8422	Women's or girls' suits and ensembles	.	752.2	5,080.4	.	0.8	2.7	---	RUS	99.4
8424	Women's or girls' dresses	.	207.9	695.8	.	0.2	0.4	---	RUS	98.5
8425	Skirts and divided skirts	.	108.4	1,280.2	.	0.1	0.7	---	RUS	99.4
8426	Trousers, bib and brace overalls, breeches	.	196.5	1,751.1	.	0.2	0.9	---	RUS	78.4
8427	Women's or girls' blouses, shirts & shirt blouses	.	780.2	3,971.2	.	0.8	2.1	---	RUS	99.9
8428	Women's singlets & other vests, slips, petticoats, briefs	.	68.8	1,202.0	.	0.1	0.6	---	RUS	82.5
8448	Slips, petticoats, briefs, panties, nightdresses	.	45.6	479.0	.	0.0	0.3	---	RUS	43.4
8451	Babies' garments and clothing accessories	.	123.5	498.0	.	0.1	0.3	---	TJK	96.9
8912	Bombs, grenades, torpedoes, mines, missiles	.	.	1,420.5	.	.	0.8	---	ARM	60.0
6644	Float glass and surface ground or polished glass	23.6	1.4	12,826.2	0.0	0.0	6.9	10,000+	RUS	99.0
8213	Furniture, n.e.s., of metal	2.1	66.5	749.6	0.0	0.1	0.4	10,000+	KAZ	99.5
7283	Machinery for mineral substances & products	3.0	1,288.0	734.5	0.0	1.3	0.4	10,000+	KAZ	99.0
7438	Parts for the pumps, compressors, fans and hoods	7.0	.	803.7	0.0	.	0.4	10,000+	UZB	99.7
T 25	Total of top 25 items	35.7	12,306.9	62,397.6	0.0	12.4	33.7	10,000+		
T All	Total, all manufactures	91,494.5	99,401.3	185,410.6	100.0	100.0	100.0	102.6	KAZ	31.2

Note: Country names for the country codes are in Appendix Table 7; minimum criteria set to .2 per cent of 2004 exports.

Appendix Table 8.7

Republic of Moldova
Fastest Growing Manufacturing Exports and their Destinations

SITC	Commodity Description	Export Value ($ thousands) 2000	2002	2004	Percent of Total Exports 2000	2002	2004	Growth Rate 2000-04	Top Destination 2004 Country	Percent
6659	Articles made of glass, n.e.s.	0.0	144.8	1,379.9	0.0	0.1	0.4	10,000+	ARE	99.9
5629	Fertilizers, n.e.s.	.	99.3	666.6	.	0.0	0.2	--	ROU	100.0
6727	Semi-finished products of iron or non-alloy steel	.	.	4,780.9	.	.	1.4	--	AS*	53.9
7842	Bodies (including cabs), for motor vehicles	.	130.5	990.3	.	0.1	0.3	--	UKR	85.0
8452	Garments made up of special yarns & textile fabrics	0.0	1,464.9	2,330.4	0.0	0.7	0.7	10,000+	I+S	99.8
7266	Other printing machinery	0.7	0.0	903.3	0.0	0.0	0.3	10,000+	RUS	79.9
6345	Fibreboard of wood or other ligneous materials	1.8	3.2	1,091.6	0.0	0.0	0.3	10,000+	RUS	53.9
6761	Bars and rods, hot-rolled, irregularly wound	10.8	64.1	6,320.1	0.0	0.0	1.8	10,000+	I+S	44.3
7832	Road tractors for semi-trailers	5.2	580.2	2,535.7	0.0	0.3	0.7	10,000+	BEL	60.9
8513	Footwear, n.e.s., with rubber outer soles & uppers	1.1	4.0	400.9	0.0	0.0	0.1	10,000+	RUS	99.9
6419	Converted paper and paperboard, n.e.s.	3.7	29.2	1,073.9	0.0	0.0	0.3	10,000+	UKR	89.4
5534	Preparations for oral or dental hygiene	2.4	100.5	532.7	0.0	0.0	0.2	10,000+	ROU	100.0
6415	Paper and paperboard, uncoated, in rolls or sheets	19.2	147.4	4,265.1	0.0	0.1	1.2	10,000+	UKR	81.4
7128	Parts for steam turbines & other vapour turbines	6.5	.	1,308.6	0.0	.	0.4	10,000+	ROU	100.0
8841	Optical fibres and optical fibre bundles	5.5	.	502.6	0.0	.	0.1	8,972.6	UKR	99.5
7169	Parts, n.e.s., electrical plants	6.9	6.6	429.4	0.0	0.0	0.1	6,163.0	I+S	99.1
8438	Underpants, briefs, nightshirts, pyjamas, bathrobes	58.1	3,422.5	3,192.4	0.0	1.6	0.9	5,392.3	UPV	78.9
8952	Pens, pencils and fountain-pens	15.6	13.5	847.0	0.0	0.0	0.2	5,334.8	ROU	100.0
7787	Electrical machines and apparatus	26.8	1,873.8	1,429.2	0.0	0.9	0.4	5,240.1	BEL	51.8
8731	Gas, liquid or electricity supply	30.9	118.4	1,347.6	0.0	0.1	0.4	4,257.8	EGY	26.4
7462	Tapered roller bearings (including cone)	8.7	23.2	374.3	0.0	0.0	0.1	4,210.8	ROU	56.2
6624	Non-refractory ceramic bricks, tiles, pipes	51.6	171.6	2,192.2	0.0	0.1	0.6	4,148.9	RUS	33.8
676X	Iron and steel bars, n.e.s.	76.5	81.2	3,086.6	0.0	0.0	0.9	3,936.1	LKA	38.7
6252	Tyres, pneumatic, new, of a kind used on buses	19.4	129.3	774.6	0.0	0.1	0.2	3,893.1	ROU	93.7
7427	Pumps for liquids, n.e.s., and liquid elevators	37.8	52.6	1,343.7	0.0	0.0	0.4	3,450.9	RUS	97.6
T 25	Total of top 25 items	389.2	8,660.7	44,099.4	0.2	4.1	12.5	10,000+		
T All	Total, all manufactures	164,769.3	208,990.3	353,481.0	100.0	100.0	100.0	114.5	I+S	22.4

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 8.8

Russian Federation
Fastest Growing Manufacturing Exports and their Destinations

SITC	Commodity Description	Export Value ($ thousands) 2000	2002	2004	Percent of Total Exports 2000	2002	2004	Growth Rate 2000-04	Top Destination 2004 Country	Percent
7822	Special-purpose motor vehicles	.	93,843	149,226	.	0.4	0.4	--	KAZ	44.7
7921	Helicopters	.	184,950	198,481	.	0.8	0.5	--	PAK	38.0
7924	Aeroplanes and other aircraft, mechanically-propelled	.	129,025	463,435	.	0.6	1.2	--	IRL	45.3
8974	Other articles of precious metal or of metal clad	.	.	239,147	.	.	0.6	--	S+L	51.2
5753	Polyamides	2,895	3,339	60,467	0.0	0.0	0.2	1,989.0	CHN	55.6
7413	Industrial or laboratory furnaces and ovens, etc.	17,905	10,122	120,581	0.1	0.0	0.3	573.5	CAN	87.6
6114	Other bovine leather and equine leather	20,130	85,935	132,953	0.1	0.4	0.4	560.5	I+S	61.9
5243	Salts of metal acids; organic & inorganic compounds	34,092	64,115	207,006	0.1	0.3	0.5	507.2	GBR	24.5
6618	Construction materials of asbestos-cement & fiber	12,468	23,495	68,337	0.1	0.1	0.2	448.1	UKR	26.7
5532	Beauty or make-up preparations	8,828	19,604	43,814	0.0	0.1	0.1	396.3	UKR	36.7
7916	Railway or tramway coaches, vans and trucks	12,797	28,713	62,081	0.1	0.1	0.2	385.1	HUN	72.3
6353	Builders' joinery and carpentry of wood	8,856	25,941	42,424	0.0	0.1	0.1	379.1	JPN	37.0
7648	Telecommunications equipment, n.e.s.	48,782	94,369	228,233	0.2	0.4	0.6	367.9	CHN	50.9
6754	Flat-rolled products of other alloy steel	23,374	50,603	109,272	0.1	0.2	0.3	367.5	I+S	21.3
6712	Pig-iron and spiegeleisen, in pigs, blocks	290,134	373,075	1,355,420	1.2	1.7	3.6	367.2	UPV	15.0
7831	Motor vehicles for transport of ten or more people	22,334	63,314	101,810	0.1	0.3	0.3	355.9	UKR	34.1
6763	Bars and rods of iron & steel	47,122	65,357	210,558	0.2	0.3	0.6	346.8	DEU	35.2
5162	Aldehyde-, ketone- and quinone-function compounds	14,894	19,066	63,393	0.1	0.1	0.2	325.6	CHN	43.5
6713	Granules and powders, of pig-iron, spiegeleisen	28,934	74,073	120,308	0.1	0.3	0.3	315.8	UKR	33.9
7752	Household-type refrigerators and food freezers	14,910	31,590	60,079	0.1	0.1	0.2	303.0	UKR	48.5
6743	Flat-rolled products of iron or non-alloy steel	12,707	13,430	50,184	0.1	0.1	0.1	294.9	I+S	19.1
5221	Carbon (including carbon black), n.e.s.	34,611	62,440	130,067	0.1	0.3	0.3	275.8	HUN	29.2
7918	Railway or tramway freight and maintenance cars	67,020	65,848	234,575	0.3	0.3	0.6	250.0	KAZ	47.8
7212	Harvesting or threshing machinery	29,623	71,777	98,757	0.1	0.3	0.3	233.4	KAZ	57.8
6911	Structures (excluding prefabricated buildings)	47,721	112,966	158,859	0.2	0.5	0.4	232.9	IND	22.0
T 25	Total of top 25 items	800,135	1,766,990	4,709,466	3.4	8.1	12.4	488.6		
T All	Total, all items	23,688,602	21,860,861	37,928,688	100.0	100.0	100.0	60.1	CHN	9.0

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 8.9

Turkmenistan
Fastest Growing Manufacturing Exports and their Destinations

SITC	Commodity Description	Export Value ($ thousands) 1999	2000	Percent of Total Exports 1999	2000	Growth Rate 1999-2000	Top Destination 2000 Country	Percent
6523	Other woven cotton fabrics, finished	.	3,013.8	.	1.7	--	TUR	88.8
6572	Non-wovens, whether or not impregnated, coated	.	206.7	.	0.1	--	TUR	73.4
6672	Diamonds (other than sorted industrial diamonds)	.	566.7	.	0.3	--	UPV	100.0
7935	Light vessels, fire-floats, dredgers	.	3,036.0	.	1.8	--	UPV	100.0
8426	Trousers, bib and brace overalls, breeches	.	1,016.0	.	0.6	--	UPV	94.3
8448	Slips, petticoats, briefs, panties, nightdresses	.	656.8	.	0.4	--	TUR	100.0
8452	Garments made of special yarns & textile fabrics	.	450.5	.	0.3	--	RUS	100.0
7731	Insulated (including enamelled or anodized) wire	1.1	301.0	0.0	0.2	10,000+	UZB	58.7
5232	Chlorides, chloride oxides and chloride hydroxides	3.8	610.7	0.0	0.4	10,000+	RUS	94.8
6931	Stranded wire, ropes, cables, plaited bands	31.1	1,175.6	0.0	0.7	3,676.7	AZE	38.1
8451	Babies' garments and clothing accessories	22.9	861.0	0.0	0.5	3,661.6	TUR	99.7
8447	Blouses, shirts and shirt blouses	77.6	642.5	0.1	0.4	728.4	TUR	100.0
6115	Sheep- or lambskin leather, without wool	48.1	301.1	0.0	0.2	526.1	IND	54.0
8438	Underpants, briefs, nightshirts, pyjamas, bathrobes	65.2	366.0	0.0	0.2	461.6	RUS	83.3
8442	Women's suits, ensembles, jackets, blazers, dresses	418.5	1,447.9	0.3	0.8	245.9	TUR	97.0
8432	Women's suits, ensembles, jackets, blazers, trousers	898.6	2,862.0	0.6	1.7	218.5	TUR	98.1
8454	T-shirts, singlets and other vests, knitted	5,934.5	18,849.0	4.2	10.9	217.6	TUR	96.6
6522	Cotton fabrics, woven, unbleached	1,127.3	3,396.8	0.8	2.0	201.3	TUR	66.3
7929	Parts, n.e.s. (not including tyres, engines)	1,045.0	3,134.1	0.7	1.8	199.9	GEO	95.1
6643	Drawn glass and blown glass, in sheets	93.7	261.2	0.1	0.2	178.7	AFG	89.1
6595	Carpets and other textile floor coverings, woven	290.1	679.7	0.2	0.4	134.3	DEU	100.0
5221	Carbon (including carbon black), n.e.s.	190.5	429.9	0.1	0.2	125.7	RUS	52.7
5222	Other chemical elements	2,810.3	6,271.6	2.0	3.6	123.2	RUS	55.2
8453	Jerseys, pullovers, cardigans, waistcoats	803.5	1,374.2	0.6	0.8	71.0	TUR	99.5
8414	Men's or boys' trousers, bib & brace overalls, breeches	7,069.0	10,521.0	5.0	6.1	48.8	RUS	62.1
T 25	Total of top 25 items	20,930.8	62,432.0	14.7	36.2	198.3		
T All	Total, all manufactures	142,093.3	172,406.2	100.0	100.0	21.3	TUR	53.7

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 8.10

Ukraine
Fastest Growing Manufacturing Exports and their Destinations

SITC	Commodity Description	Export Value ($ thousands) 2000	2002	2004	Percent of Total Exports 2000	2002	2004	Growth Rate 2000-2004	Top Destination 2004 Country	Percent
673X	Iron and nonalloy steel, flat-rolled, n.e.s.	0	1,391,352	3,288,974	0.0	11.7	14.3	10,000+	TUR	18.7
676X	Iron and steel bars, n.e.s.	.	594,395	1,083,706	.	5.0	4.7	10,000+	DZA	32.4
6997	Articles, n.e.s., of copper, nickel, aluminium	1,812	92,265	267,643	0.0	0.8	1.2	10,000+	HKG	37.0
7642	Microphones and stands therefor; loudspeakers	275	17,596	25,598	0.0	0.1	0.1	9,216.9	AUT	71.4
8813	Photographic & cinematographic apparatus & equip.	412	38	31,839	0.0	0.0	0.1	7,635.4	AUT	99.8
7912	Other rail locomotives; locomotive tenders	962	658	72,597	0.0	0.0	0.3	7,445.2	RUS	47.8
5812	Tubes, pipes and hoses, rigid	502	7,041	30,749	0.0	0.1	0.1	6,029.9	MDA	27.7
6584	Bedlinen, table linen, toilet linen and kitchen linen	757	5,230	25,060	0.0	0.0	0.1	3,212.6	DNK	80.1
8746	Automatic regulating or controlling instruments	16,356	52,465	446,231	0.2	0.4	1.9	2,628.2	DEU	48.3
6659	Articles made of glass, n.e.s.	3,402	22,620	91,227	0.0	0.2	0.4	2,581.4	LVA	94.1
7643	Transmission apparatus for radio-telephony, television	1,271	1,955	29,662	0.0	0.0	0.1	2,233.7	LTU	87.4
6429	Articles of paper pulp, paper, paperboard	1,186	15,155	26,849	0.0	0.1	0.1	2,163.0	RUS	68.8
5711	Polyethylene	3,750	45,128	82,054	0.0	0.4	0.4	2,088.1	HUN	26.9
5531	Perfumes and toilet waters	7,839	9,854	171,019	0.1	0.1	0.7	2,081.6	ESP	96.5
7527	Storage units	3,322	560	68,593	0.0	0.0	0.3	1,965.0	DEU	98.6
7359	Parts & accessories for metalworking machine tools	1,931	6,378	36,042	0.0	0.1	0.2	1,766.6	ESP	78.0
7918	Railway or tramway freight and maintenance cars	33,508	197,229	574,478	0.3	1.7	2.5	1,614.4	RUS	54.3
7919	Railway or tramway track fixtures and fittings	49,511	94,461	830,021	0.5	0.8	3.6	1,576.4	UPV	65.3
5156	Lactams; heterocyclic compounds with oxygen	3,069	17,267	50,567	0.0	0.1	0.2	1,547.8	CHN	96.7
7413	Industrial or laboratory furnaces and ovens, etc.	10,779	14,182	132,106	0.1	0.1	0.6	1,125.6	DEU	44.4
7726	Boards, panels (including numerical control panels)	14,561	32,415	171,748	0.1	0.3	0.7	1,079.5	LTU	75.6
7599	Parts and accessories for office machines	2,573	3,635	28,391	0.0	0.0	0.1	1,003.3	HUN	59.6
5112	Cyclic hydrocarbons	3,549	24,452	38,499	0.0	0.2	0.2	984.8	BLR	79.5
7641	Electrical apparatus for line telephony	7,571	11,055	75,153	0.1	0.1	0.3	892.7	JOR	56.6
5989	Chemical products and preparations, n.e.s.	11,236	16,363	102,664	0.1	0.1	0.4	813.7	JOR	33.9
T 25	Total of top 25 items	180,134	2,673,747	7,781,472	1.8	22.5	33.9	4,219.8		
T All	Total, all manufactures	9,773,286	11,864,719	22,970,000	100.0	100.0	100.0	135.0	RUS	18.4

Note: Country names for the country codes are in Appendix Table 7.

Appendix Table 9.1

Armenia
Revealed Comparative Advantage by SITC Category, 2004

SITC	Commodity Description	Commodity's Per Cent of Total Exports	Country's Per Cent of CIS Exports	Country's Per Cent of World Exports	Revealed Comparative Advantage Relative to: CIS	World
	Top 2-Digit Categories					
66	Non-metallic mineral manufactures, n.e.s.	32.4	16.7	0.14	60.2	16.8
97	Gold, non-monetary (excluding gold ores, concencentrates)	6.1	7.7	0.13	27.9	16.0
35	Electric current	2.7	2.3	0.11	8.4	13.3
11	Beverages (non-alcoholic and alcoholic)	8.0	6.4	0.11	23.2	12.9
28	Metalliferous ores and metal scrap	12.0	1.6	0.10	5.8	11.5
23	Crude rubber (natural, synthetic and reclaimed)	1.3	1.2	0.05	4.4	6.2
68	Non-ferrous metals	6.6	0.4	0.03	1.3	3.5
67	Iron and steel	9.6	0.2	0.03	0.9	3.1
12	Tobacco and tobacco manufactures	0.6	1.6	0.02	5.9	2.5
07	Coffee, tea, cocoa, spices, and manufactures thereof	0.9	1.3	0.02	4.9	2.2
84	Articles of apparel and clothing accessories	4.7	2.2	0.01	7.9	1.6
89	Miscellaneous manufactured articles, n.e.s.	5.0	2.8	0.01	10.2	1.4
73	Metalworking machinery	0.7	1.1	0.01	4.0	1.0
02	Dairy products and birds' eggs	0.4	0.3	0.01	1.1	0.8
05	Vegetables and fruit	0.8	0.8	0.01	2.8	0.7
	Top 3-Digit Categories					
287	Ores and concentrates of base metals, n.e.s.	6.2	12.5	0.44	45.2	52.6
667	Pearls and precious or semiprecious stones	31.1	99.7	0.32	359.9	38.5
671	Pig-iron, sponge iron, iron or steel granules and ferro-alloys	9.1	1.5	0.31	5.4	37.6
283	Copper ores, concentrates and mattes; cement copper	4.1	12.8	0.24	46.4	29.4
971	Gold, non-monetary (excluding gold ores and concentrates)	6.1	7.7	0.13	27.9	16.0
112	Alcoholic beverages	7.7	7.0	0.13	25.2	15.3
351	Electric current	2.7	2.3	0.11	8.4	13.3
897	Jewellery; other articles of precious, semiprecious materials	4.7	11.7	0.10	42.3	11.8
232	Synthetic rubber; reclaimed rubber; waste, rubber scrap	1.3	1.2	0.09	4.4	11.4
682	Copper	5.0	1.0	0.07	3.8	8.5
025	Eggs, birds', and egg yolks, fresh or preserved, egg albumin	0.2	3.3	0.06	12.0	7.4
288	Non-ferrous base metal waste and scrap, n.e.s.	1.1	9.9	0.06	35.8	7.4
071	Coffee and coffee substitutes	0.9	26.1	0.06	94.4	7.0
661	Lime, cement, and fabricated construction materials	1.1	2.5	0.05	9.1	6.2
845	Articles of apparel, of textile fabrics; n.e.s.	3.7	7.0	0.03	25.4	3.9
122	Tobacco, manufactured	0.6	1.8	0.03	6.5	3.2
056	Vegetables, roots and tubers, prepared or preserved, n.e.s.	0.6	4.9	0.03	17.9	3.1
269	Worn clothing and other worn textile articles; rags	0.1	3.7	0.02	13.3	2.5
733	Machine tools for working metal, sintered metal carbides	0.2	2.6	0.02	9.6	2.4
282	Ferrous waste and scrap; scrap ingots of iron or steel	0.6	0.2	0.02	0.6	2.4
111	Non-alcoholic beverages, n.e.s.	0.3	2.0	0.02	7.2	2.4
036	Crustaceans, molluscs and aquatic invertebrates	0.4	7.2	0.02	26.1	2.0
684	Aluminium	1.6	0.2	0.02	0.7	2.0
633	Cork manufactures	0.0	38.8	0.02	140.2	2.0
058	Fruit, preserved, and fruit preparations (excluding juices)	0.2	1.6	0.02	5.6	2.0
	Top 4-Digit Categories					
2878	Ores and concentrates of molybdenum, niobium, tantalum	6.0	28.8	0.89	104.1	106.8
6999	Semi-manufactures and articles of base metals, n.e.s	1.1	37.6	0.61	135.7	73.6
6715	Other ferro-alloys (excluding radioactive ferro-alloys)	9.1	4.2	0.52	15.2	62.0
8455	Brassières, girdles, corsets, braces, suspenders, garters	3.6	25.5	0.38	92.0	45.9
1124	Spirits, liqueurs and other spirituous beverages, n.e.s.	7.5	17.5	0.36	63.1	43.1
6672	Diamonds (other than sorted industrial diamonds)	31.0	99.7	0.34	360.1	40.9
2831	Copper ores and concentrates	4.1	13.0	0.25	46.9	29.7
0712	Coffee, roasted	0.5	44.3	0.18	159.9	22.1
6821	Copper, refined and unrefined; copper anodes and alloys	5.0	1.8	0.16	6.5	18.9
9710	Gold, non-monetary (excluding gold ores and concentractes)	6.1	7.7	0.13	27.9	16.0
7374	Machinery and apparatus for soldering, brazing or welding	0.2	33.3	0.13	120.3	15.9
0362	Crustaceans (other than frozen), including flours and meals	0.4	86.1	0.13	311.0	15.7
6592	Carpets and other textile floor coverings, knotted	0.2	99.0	0.13	357.5	15.2
6612	Portland, aluminous, slag, and supersulphate cement	0.9	3.6	0.12	12.8	14.5
8973	Jewellery of gold, silver or platinum group metals	4.7	79.1	0.12	285.4	14.0
2821	Waste and scrap of cast iron	0.2	0.6	0.11	2.0	13.3
3510	Electric current	2.7	2.3	0.11	8.4	13.3
2321	Synthetic rubber and factice derived from oils	1.3	1.2	0.10	4.5	11.7
0251	Birds' eggs, in shell, fresh, preserved or cooked	0.2	3.4	0.09	12.4	11.2
2882	Other non-ferrous base metal waste and scrap, n.e.s.	1.1	12.8	0.07	46.1	8.1
6735	Flat-rolled products of iron or non-alloy steel, n.e.s.	0.1	3.5	0.05	12.7	6.4
6578	Rubber thread and cord, textile-covered	0.0	34.3	0.05	123.9	5.8
8853	Wrist-watches, pocket watches with case of precious metal	0.3	49.2	0.05	177.7	5.7
8438	Underpants, briefs, nightshirts, pyjamas, bathrobes	0.2	15.2	0.05	54.8	5.6
2875	Zinc ores and concentrates	0.2	3.4	0.05	12.1	5.5

Appendix Table 9.2

Azerbaijan
Revealed Comparative Advantage by SITC Category, 2004

SITC	Commodity Description	Commodity's Per Cent of Total Exports	Country's Per Cent of CIS Exports	Country's Per Cent of World Exports	Revealed Comparative Advantage Relative to: CIS	World
	Top 2-Digit Categories					
33	Petroleum, petroleum products and related materials	82.0	3.1	0.59	2.2	13.9
43	Animal or vegetable fats and oils (processed) & waxes	0.3	40.1	0.18	28.5	4.2
26	Textile fibres (other than wool tops) & waste thereof	1.0	4.3	0.14	3.1	3.3
42	Fixed vegetable fats and oils, crude, refined	0.9	4.2	0.11	3.0	2.6
79	Transport equipment (railway vehicles, aircraft, ships)	3.9	3.6	0.07	2.6	1.7
05	Vegetables and fruit	1.7	8.1	0.06	5.8	1.5
28	Metalliferous ores and metal scrap	1.4	0.9	0.06	0.7	1.3
12	Tobacco and tobacco manufactures	0.3	4.4	0.06	3.1	1.3
07	Coffee, tea, cocoa, spices, and manufactures thereof	0.5	4.0	0.05	2.9	1.3
57	Plastics in primary forms	1.7	6.7	0.04	4.7	1.0
21	Hides, skins and furskins, raw	0.1	1.0	0.03	0.7	0.7
68	Non-ferrous metals	1.4	0.4	0.03	0.3	0.7
35	Electric current	0.1	0.6	0.03	0.4	0.6
09	Miscellaneous edible products and preparations	0.2	2.4	0.03	1.7	0.6
67	Iron and steel	1.2	0.2	0.02	0.1	0.4
	Top 3-Digit Categories					
333	Petroleum oils, oils from bituminous minerals, crude	62.6	3.3	0.82	2.3	19.4
285	Aluminium ores and concentrates (including alumina)	1.4	17.3	0.78	12.3	18.4
074	Tea and maté	0.5	37.4	0.52	26.6	12.2
263	Cotton	1.0	6.3	0.40	4.5	9.4
334	Petroleum oils, oils from bituminous minerals	19.3	2.7	0.33	1.9	7.7
091	Margarine and shortening	0.2	18.1	0.32	12.9	7.5
793	Ships, boats (including hovercraft) & floating structures	3.8	16.4	0.23	11.7	5.3
261	Silk	0.0	14.7	0.21	10.5	4.9
421	Fixed vegetable fats and oils, "soft", crude, refined	0.8	3.8	0.18	2.7	4.2
431	Animal or vegetable fats and oils (processed) & waxes	0.3	40.1	0.18	28.5	4.2
571	Polymers of ethylene, in primary forms	1.3	10.7	0.16	7.6	3.9
059	Fruit and vegetable juices (including grape must)	0.2	8.5	0.11	6.1	2.6
057	Fruit and nuts (not including oil nuts), fresh or dried	0.9	12.1	0.09	8.6	2.1
672	Ingots and semi-finished products, of iron or steel	0.6	0.3	0.08	0.2	1.9
684	Aluminium	1.3	0.9	0.07	0.6	1.8
121	Tobacco, unmanufactured; tobacco refuse	0.1	9.0	0.06	6.4	1.5
054	Vegetables, fresh or simply preserved; roots & tubers	0.5	8.2	0.06	5.8	1.4
512	Alcohols, phenols, phenol-alcohols, & their derivatives	0.3	1.6	0.05	1.2	1.3
122	Tobacco, manufactured	0.2	3.5	0.05	2.5	1.2
676	Iron and steel bars, rods, angles, shapes & sections	0.6	0.5	0.05	0.4	1.1
211	Hides and skins (except furskins), raw	0.1	1.3	0.04	0.9	1.0
037	Fish, crustaceans, other aquatic invertebrates, n.e.s.	0.1	4.2	0.03	3.0	0.8
025	Eggs, birds' & egg yolks, fresh or preserved, albumin	0.0	1.6	0.03	1.1	0.7
422	Vegetable fats and oils, crude & refined, not "soft"	0.1	45.1	0.03	32.1	0.7
351	Electric current	0.1	0.6	0.03	0.4	0.6
	Top 4-Digit Categories					
7935	Light vessels, dredgers, floating cranes; floating docks	3.8	59.7	1.80	42.4	42.5
4212	Cotton seed oil and its fractions	0.0	33.6	1.53	23.9	36.3
4216	Maize (corn) oil and its fractions	0.2	87.9	1.36	62.5	32.2
2614	Silkworm cocoons and silk waste	0.0	42.7	0.91	30.3	21.4
2852	Alumina (aluminium oxide), not artificial corundum	1.4	17.3	0.83	12.3	19.7
3330	Petroleum oils & oils from bituminous minerals, crude	62.6	3.3	0.82	2.3	19.4
4215	Sunflower seed or safflower oil and fractions	0.5	2.6	0.74	1.9	17.5
0741	Tea, whether or not flavoured	0.5	37.5	0.60	26.7	14.1
4229	Other vegetable fats, crude & refined, not "soft"	0.1	68.3	0.58	48.5	13.6
6727	Semi-finished products of iron or non-alloy steel	0.5	1.0	0.52	0.7	12.3
2631	Cotton (other than linters), not carded or combed	1.0	6.5	0.43	4.7	10.1
0548	Vegetable products, roots and tubers, n.e.s.	0.1	43.9	0.38	31.3	9.0
7937	Tugs and pusher craft	0.1	9.0	0.36	6.4	8.6
4312	Animal or vegetable fats & oils, processed	0.3	45.8	0.35	32.6	8.2
0910	Margarine and shortening	0.2	18.1	0.32	12.9	7.5
0574	Apples, fresh	0.3	22.1	0.30	15.8	7.1
6581	Sacks and bags, of textile materials, used for packing	0.1	27.3	0.28	19.4	6.6
2117	Sheepskins and lambskins without wool on, raw	0.0	81.5	0.26	58.0	6.2
1211	Tobacco, not stemmed/stripped	0.1	17.0	0.24	12.1	5.8
0541	Potatoes, fresh or chilled (not sweet potatoes)	0.1	37.6	0.22	26.7	5.1
5711	Polyethylene	1.3	10.7	0.21	7.6	5.1
0599	Juice of any single fruit or vegetable or mixtures	0.2	9.5	0.21	6.8	4.9
0577	Edible nuts, fresh or dried, shelled or peeled	0.3	8.5	0.16	6.1	3.8
6841	Aluminium and aluminium alloys, unwrought	1.3	1.0	0.16	0.7	3.8
0812	Bran, sharps & residues of cereals, leguminous plants	0.0	1.9	0.16	1.4	3.7

Appendix Table 9.3

Belarus
Revealed Comparative Advantage by SITC Category, 2004

SITC	Commodity Description	Commodity's Per Cent of Total Exports	Country's Per Cent of CIS Exports	Country's Per Cent of World Exports	Revealed Comparative Advantage Relative to: CIS	World
	Top 2-Digit Categories					
56	Fertilizers (other than crude)	6.3	19.1	4.06	3.6	25.2
06	Sugars, sugar preparations and honey	1.7	42.3	1.18	7.9	7.3
02	Dairy products and birds' eggs	2.9	40.2	0.93	7.5	5.8
33	Petroleum, petroleum products and related materials	26.2	3.8	0.71	0.7	4.4
26	Textile fibres (other than wool tops) and their wastes	1.3	21.0	0.68	3.9	4.2
24	Cork and wood	1.7	5.1	0.52	0.9	3.2
63	Cork and wood manufactures (excluding furniture)	1.2	18.8	0.33	3.5	2.1
01	Meat and meat preparations	1.5	45.9	0.33	8.6	2.0
82	Furniture, and parts thereof; stuffed furnishings	2.0	46.9	0.31	8.8	1.9
27	Crude fertilizers	0.4	7.1	0.31	1.3	1.9
61	Leather, leather manufactures & dressed furskins	0.5	14.8	0.28	2.8	1.8
67	Iron and steel	5.0	2.4	0.26	0.4	1.6
65	Textile yarn, fabrics, and related products, n.e.s.	3.7	37.8	0.26	7.1	1.6
81	Prefabricated buildings; fixtures and fittings, n.e.s.	0.6	38.7	0.25	7.2	1.5
21	Hides, skins and furskins, raw	0.1	7.5	0.24	1.4	1.5
	Top 3-Digit Categories					
562	Fertilizers (other than crude)	6.3	19.1	4.06	3.6	25.2
266	Synthetic fibres suitable for spinning	1.1	91.6	2.69	17.1	16.8
722	Tractors (other than self-propelled works trucks)	2.5	81.8	2.68	15.3	16.7
023	Butter and other fats and oils derived from milk	0.6	53.3	1.92	10.0	12.0
693	Wire products and fencing grills	1.0	64.1	1.70	12.0	10.5
334	Petroleum oils, oils from bituminous materials	24.0	12.8	1.54	2.4	9.6
265	Vegetable textile fibres (except cotton & jute)	0.1	66.0	1.52	12.3	9.5
061	Sugars, molasses and honey	1.5	48.7	1.50	9.1	9.3
047	Other cereal meals and flours	0.1	34.6	1.45	6.5	9.0
025	Eggs, birds' & egg yolks, fresh or preserved, albumin	0.2	69.1	1.29	12.9	8.0
678	Wire of iron or steel	0.5	20.8	1.00	3.9	6.2
022	Milk & cream, milk products other than butter, cheese	1.3	39.0	0.87	7.3	5.4
783	Road motor vehicles, n.e.s.	1.7	58.2	0.85	10.9	5.3
654	Other textile fabrics, woven	0.7	42.4	0.85	7.9	5.3
322	Briquettes, lignite and peat	0.1	35.5	0.83	6.6	5.2
676	Iron and steel bars, rods, angles, shapes & sections	2.7	9.0	0.81	1.7	5.0
245	Fuel wood (excluding wood waste) & wood charcoal	0.0	16.1	0.78	3.0	4.8
024	Cheese and curd	0.8	32.9	0.71	6.2	4.4
782	Motor vehicles for the transport of goods	4.0	47.7	0.70	8.9	4.3
017	Meat & edible meat offal, prepared or preserved, n.e.s.	0.4	51.4	0.67	9.6	4.2
662	Clay and refratory construction materials	0.7	45.0	0.64	8.4	4.0
247	Wood in the rough or roughly squared	0.4	1.9	0.60	0.4	3.7
672	Ingots and semi-finished products, of iron or steel	1.1	1.9	0.60	0.4	3.7
697	Household equipment of base metal, n.e.s.	0.7	60.4	0.58	11.3	3.6
775	Household-type electrical & non-electrical equipment	2.4	64.1	0.57	12.0	3.6
	Top 4-Digit Categories					
5623	Mineral or chemical fertilizers, potassic	5.5	50.8	17.12	9.5	106.4
2666	Synthetic filament tow	0.4	81.0	6.81	15.1	42.3
6419	Converted paper and paperboard, n.e.s.	0.5	39.6	3.54	7.4	22.0
1122	Fermented beverages (e.g., cider, mead) & mixtures	0.1	82.8	3.45	15.5	21.4
6546	Fabrics, woven, of glass fibres (including narrow fibres)	0.4	88.2	3.06	16.5	19.0
0612	Beet or cane sugar, chemically pure sucrose, solid	1.4	59.1	3.01	11.0	18.7
7224	Wheeled tractors (except mechanical handling equip.)	2.5	88.8	2.90	16.6	18.0
2481	Railway or tramway sleepers (cross-ties) of wood	0.0	19.9	2.79	3.7	17.3
6931	Stranded wire, ropes, cables, plaited bands, sling	1.0	69.7	2.79	13.0	17.3
0471	Cereal flours (other than of wheat or meslin)	0.1	80.1	2.77	15.0	17.2
7752	Household-type refrigerators and food freezers	2.1	65.8	2.56	12.3	15.9
6579	Special products of textile materials	0.4	87.0	2.32	16.3	14.4
6349	Wood, simply shaped, n.e.s.	0.0	61.8	2.31	11.6	14.4
2665	Synthetic staple fibres, not processed for spinning	0.7	98.1	2.19	18.3	13.6
2783	Sodium chloride, pure, and common salt; sea water	0.2	40.4	2.18	7.6	13.6
6544	Fabrics, woven, of flax	0.2	26.8	1.94	5.0	12.1
2651	Flax, raw or processed but not spun; flax tow & waste	0.1	66.6	1.93	12.4	12.0
0230	Butter & other fats and oils derived from milk	0.6	53.3	1.92	10.0	12.0
0731	Cocoa powder containing sugar or other sweetener	0.0	99.7	1.92	18.6	12.0
0251	Birds' eggs, in shell, fresh, preserved or cooked	0.2	69.2	1.88	12.9	11.7
7463	Spherical roller bearings	0.2	76.6	1.75	14.3	10.9
0172	Sausages & similar products of meat; food preparations	0.3	64.1	1.75	12.0	10.9
6255	Other new pneumatic tyres	0.4	39.9	1.72	7.5	10.7
6973	Cooking or heating apparatus, non-electric	0.6	80.9	1.57	15.1	9.8
6781	Wire of iron or non-alloy steel	0.5	21.3	1.53	4.0	9.5

Appendix Table 9.4

Georgia
Revealed Comparative Advantage by SITC Category, 2004

SITC	Commodity Description	Commodity's Per Cent of Total Exports	Country's Per Cent of CIS Exports	Country's Per Cent of World Exports	Revealed Comparative Advantage Relative to: CIS	World
	Top 2-Digit Categories					
11	Beverages	15.6	11.4	0.19	45.4	25.3
06	Sugars, sugar preparations and honey	5.5	6.4	0.18	25.3	23.5
28	Metalliferous ores and metal scrap	23.6	2.9	0.17	11.3	22.7
56	Fertilizers (other than crude)	4.4	0.6	0.14	2.5	17.9
97	Gold, non-monetary (excluding ores, concentrates)	2.9	3.3	0.06	13.3	7.6
79	Transport equipment (railway vehicles, aircraft, ships)	14.1	2.3	0.05	9.3	6.3
04	Cereals and cereal preparations	3.6	1.0	0.03	3.9	4.5
24	Cork and wood	1.8	0.3	0.03	1.0	3.4
05	Vegetables and fruit	3.8	3.2	0.03	12.8	3.3
07	Coffee, tea, cocoa, spices, and manufactures thereof	1.1	1.6	0.02	6.3	2.8
67	Iron and steel	7.7	0.2	0.02	0.7	2.5
21	Hides, skins and furskins, raw	0.2	0.5	0.02	2.0	2.2
52	Inorganic chemicals	1.0	0.3	0.01	1.0	1.7
27	Crude fertilizers	0.3	0.3	0.01	1.1	1.5
02	Dairy products and birds' eggs	0.7	0.4	0.01	1.8	1.4
	Top 3-Digit Categories					
282	Ferrous waste and scrap; scrap ingots of iron or steel	14.8	3.3	0.42	13.2	55.1
111	Non-alcoholic beverages, n.e.s.	5.1	35.1	0.35	139.2	46.6
283	Copper ores, concentrates and mattes; cement copper	4.9	14.1	0.27	56.1	35.5
061	Sugars, molasses and honey	5.3	8.0	0.25	31.7	32.4
671	Pig-iron, sponge iron, iron or steel granules & ferro-alloys	6.6	1.0	0.21	3.9	27.1
112	Alcoholic beverages	10.5	8.6	0.16	34.1	20.7
288	Non-ferrous base metal waste and scrap, n.e.s.	2.9	23.8	0.15	94.2	19.4
562	Fertilizers (other than crude)	4.4	0.6	0.14	2.5	17.9
041	Wheat (including spelt) and meslin, unmilled	3.5	1.8	0.12	7.3	15.7
074	Tea and maté	0.6	7.7	0.11	30.4	14.0
047	Other cereal meals and flours	0.1	1.8	0.08	7.2	10.0
792	Aircraft & associated equipment; spacecraft; parts	13.1	8.0	0.07	31.8	9.8
287	Ores and concentrates of base metals, n.e.s.	1.0	1.9	0.07	7.5	8.8
971	Gold, non-monetary (excluding ores & concentrates)	2.9	3.3	0.06	13.3	7.6
057	Fruit and nuts (not including oil nuts), fresh or dried	3.3	7.7	0.06	30.3	7.4
075	Spices	0.2	30.4	0.05	120.5	6.8
791	Railway vehicles and associated equipment	0.9	0.3	0.04	1.2	5.2
523	Metal salts and peroxysalts, of inorganic acids	0.6	1.5	0.04	6.1	5.1
248	Wood, simply worked, and railway sleepers of wood	1.8	0.6	0.03	2.3	4.5
342	Liquefied propane and butane	0.6	1.2	0.03	4.7	4.4
661	Lime, cement, and fabricated construction material	0.7	1.5	0.03	6.1	4.2
211	Hides and skins (except furskins), raw	0.2	0.7	0.02	2.8	3.1
062	Sugar confectionery	0.2	1.0	0.02	4.0	2.9
022	Milk and cream and milk products other than butter	0.7	1.0	0.02	3.8	2.8
278	Other crude minerals	0.3	0.5	0.02	1.8	2.6
	Top 4-Digit Categories					
2877	Manganese ores and concentrates	1.0	9.0	0.81	35.8	106.7
7921	Helicopters	2.7	6.4	0.58	25.5	76.4
0612	Other beet or cane sugar and pure sucrose, in solid	5.3	10.8	0.55	42.6	72.1
2823	Other ferrous waste and scrap	12.7	3.4	0.52	13.7	68.3
2742	Iron pyrites, unroasted	0.0	25.9	0.48	102.5	62.9
7923	Aeroplanes and other aircraft, mechanically-propelled	8.4	68.8	0.43	272.7	56.4
5621	Mineral or chemical fertilizers, nitrogenous	4.4	1.6	0.38	6.3	49.8
7911	Rail locomotives powered by external electricity	0.3	24.9	0.36	98.6	48.0
1110	Non-alcoholic beverages, n.e.s.	5.1	35.1	0.35	139.2	46.6
6714	Ferromanganese	1.2	0.7	0.32	3.0	42.7
0577	Edible nuts, fresh or dried, shelled or peeled	2.7	15.0	0.28	59.4	37.5
6715	Other ferro-alloys (excluding radioactive ferro-alloys)	5.4	2.3	0.28	9.0	36.7
2831	Copper ores and concentrates	4.9	14.3	0.27	56.6	35.9
5238	Other metal salts and peroxysalts of inorganic acids	0.6	32.3	0.27	127.9	35.1
2786	Slag, dross, scalings and similar waste, n.e.s.	0.2	9.6	0.26	37.9	34.1
1121	Wine of fresh grapes (including fortified wine)	7.5	14.9	0.24	59.1	31.9
2822	Waste and scrap of alloy steel	2.1	4.9	0.22	19.3	29.4
5259	Stable isotopes & rare earth metals; compounds	0.1	2.6	0.17	10.4	22.9
2882	Other non-ferrous base metal waste & scrap, n.e.s.	2.9	30.6	0.16	121.4	21.3
0472	Cereal groats, meal and pellets (other than of wheat)	0.1	3.1	0.15	12.2	20.3
2484	Wood of non-coniferous species, over 6 mm	1.4	5.0	0.13	20.0	16.9
1124	Spirits, liqueurs & other spirituous beverages, n.e.s.	2.9	6.2	0.13	24.4	16.7
0412	Other wheat (including spelt) and meslin, unmilled	3.3	2.6	0.13	10.2	16.5
0741	Tea, whether or not flavoured	0.6	7.5	0.12	29.9	15.8
7131	Internal combustion piston engines for aircraft; parts	0.3	29.0	0.10	114.9	13.7

Appendix Table 9.5

Kazakhstan
Revealed Comparative Advantage by SITC Category, 2004

SITC	Commodity Description	Commodity's Per Cent of Total Exports	Country's Per Cent of CIS Exports	Country's Per Cent of World Exports	Revealed Comparative Advantage Relative to: CIS	World
	Top 2-Digit Categories					
33	Petroleum, petroleum products & related materials	59.5	12.4	2.35	1.6	10.1
68	Non-ferrous metals	8.9	13.3	1.08	1.7	4.6
28	Metalliferous ores and metal scrap	4.6	16.9	1.02	2.2	4.4
52	Inorganic chemicals	2.2	17.8	0.93	2.3	4.0
04	Cereals and cereal preparations	2.8	23.3	0.79	3.0	3.4
26	Textile fibres (other than wool tops) & waste thereof	0.9	20.9	0.67	2.7	2.9
32	Coal, coke and briquettes	1.4	6.0	0.67	0.8	2.9
34	Gas, natural and manufactured	3.5	4.6	0.65	0.6	2.8
67	Iron and steel	8.1	5.6	0.60	0.7	2.6
97	Gold, non-monetary (excluding ores & concentrates)	0.9	33.6	0.58	4.3	2.5
27	Crude fertilizers	0.5	13.0	0.55	1.7	2.4
61	Leather & leather manufactures, n.e.s.; furskins	0.6	25.6	0.49	3.3	2.1
35	Electric current	0.3	8.2	0.39	1.1	1.7
06	Sugars, sugar preparations and honey	0.3	9.1	0.25	1.2	1.1
21	Hides, skins and furskins, raw	0.1	6.4	0.21	0.8	0.9
	Top 3-Digit Categories					
274	Sulphur and unroasted iron pyrites	0.2	31.8	4.72	4.1	20.2
046	Meal and flour of wheat and flour of meslin	0.5	71.9	4.38	9.3	18.8
333	Petroleum oils, oils from bituminous minerals, crude	57.3	16.5	4.13	2.1	17.7
671	Pig-iron, spiegeleisen, sponge iron, iron or steel	4.2	19.0	4.00	2.5	17.2
686	Zinc	1.1	76.6	3.85	9.9	16.5
685	Lead	0.4	76.3	3.65	9.8	15.6
281	Iron ore and concentrates	2.2	28.5	2.59	3.7	11.1
682	Copper	6.0	34.8	2.36	4.5	10.1
041	Wheat (including spelt) and meslin, unmilled	2.0	31.5	2.03	4.1	8.7
263	Cotton	0.9	30.2	1.92	3.9	8.2
689	Miscellaneous non-ferrous base metals & cermets	0.6	20.0	1.82	2.6	7.8
522	Inorganic chemical elements, oxides & halogen salts	1.8	19.6	1.52	2.5	6.5
742	Pumps for liquids, liquid elevators; parts thereof	2.1	58.7	1.35	7.6	5.8
287	Ores and concentrates of base metals, n.e.s.	0.6	36.5	1.28	4.7	5.5
283	Copper ores, concentrates & mattes; cement copper	0.7	64.7	1.23	8.3	5.3
673	Flat-rolled products of iron or non-alloy steel, coated	3.1	7.5	1.13	1.0	4.9
524	Inorganic chemicals; compounds of precious metals	0.3	18.6	1.07	2.4	4.6
043	Barley, unmilled	0.1	5.7	0.89	0.7	3.8
321	Coal, whether or not pulverized, but not agglomerated	1.3	8.2	0.86	1.1	3.7
681	Silver, platinum and other metals of the platinum	0.8	98.4	0.84	12.7	3.6
343	Natural gas, whether or not liquefied	3.5	4.8	0.80	0.6	3.4
282	Ferrous waste & scrap; scrap ingots of iron or steel	0.9	6.3	0.79	0.8	3.4
611	Leather	0.6	27.5	0.60	3.5	2.6
971	Gold, non-monetary (excluding ores & concentrates)	0.9	33.6	0.58	4.3	2.5
278	Other crude minerals	0.2	11.6	0.51	1.5	2.2
	Top 4-Digit Categories					
6733	Flat-rolled products of iron or non-alloy steel, coated	1.4	100.0	99.84	12.9	428.0
6731	Flat-rolled products of iron or non-alloy steel, coated	1.7	100.0	98.78	12.9	423.5
6113	Whole bovine skin leather, without hair on	0.5	66.3	47.70	8.6	204.5
6714	Ferromanganese	4.2	81.0	35.12	10.4	150.6
7421	Pumps fitted or with a measuring device	2.1	98.7	32.01	12.7	137.2
0411	Durum wheat, unmilled	2.0	99.3	21.08	12.8	90.4
3211	Anthracite	1.3	41.4	21.07	5.3	90.3
2821	Waste and scrap of cast iron	0.9	88.3	17.66	11.4	75.7
2784	Asbestos	0.1	20.3	8.64	2.6	37.0
2879	Ores and concentrates of non-ferrous base metals	0.3	77.7	8.49	10.0	36.4
2877	Manganese ores and concentrates	0.2	60.8	5.45	7.8	23.4
2741	Sulphur of all kinds (not sublimed & colloidal sulphur)	0.2	31.9	4.83	4.1	20.7
0461	Flour of wheat or of meslin	0.5	72.1	4.79	9.3	20.5
0421	Rice in the husk (paddy or rough rice)	0.1	98.2	4.72	12.7	20.2
6821	Copper, refined and unrefined; copper anodes & alloys	5.3	52.6	4.62	6.8	19.8
6861	Zinc and zinc alloys, unwrought	1.1	76.6	4.37	9.9	18.7
6851	Lead and lead alloys, unwrought	0.4	77.1	4.19	9.9	17.9
3330	Petroleum oils, oils from bituminous minerals, crude	57.3	16.5	4.13	2.1	17.7
5226	Other inorganic bases and metal oxides, hydroxides	1.4	20.7	3.55	2.7	15.2
6898	Intermediate products of cobalt metallurgy; cobalt	0.4	21.2	3.47	2.7	14.9
6811	Silver, unwrought, unworked or semi-manufactured	0.8	98.4	2.79	12.7	12.0
2891	Precious metal ores and concentrates	0.1	100.0	2.70	12.9	11.6
3222	Lignite, whether or not pulverized (excluding jet)	0.0	24.2	2.28	3.1	9.8
6115	Sheep- or lambskin leather, without wool on	0.1	93.0	2.11	12.0	9.0
2631	Cotton (other than linters), not carded or combed	0.9	31.2	2.04	4.0	8.7

Appendix Table 9.6

Kyrgyzstan
Reveled Comparative Advantage by SITC Category, 2004

SITC	Commodity Description	Commodity's Per Cent of Total Exports	Country's Per Cent of CIS Exports	Country's Per Cent of World Exports	Revealed Comparative Advantage Relative to: CIS	World
	Top 2-Digit Categories					
97	Gold, non-monetary (excluding ores and concentrates)	40.0	51.1	0.88	182.7	104.3
26	Textile fibres (other than wool tops) & waste	6.3	5.4	0.17	19.2	20.5
35	Electric current	3.0	2.7	0.13	9.5	15.1
06	Sugars, sugar preparations and honey	3.2	4.1	0.11	14.7	13.6
21	Hides, skins and furskins, raw	0.9	2.5	0.08	8.8	9.5
12	Tobacco and tobacco manufactures	1.6	4.2	0.05	14.9	6.2
52	Inorganic chemicals	2.7	0.8	0.04	2.8	4.9
66	Non-metallic mineral manufactures, n.e.s.	6.6	3.4	0.03	12.3	3.4
02	Dairy products and birds' eggs	1.5	1.1	0.02	3.8	2.9
00	Live animals (not fish, molluscs, aquatic invertebrates)	0.3	11.9	0.02	42.7	2.8
05	Vegetables and fruit	3.0	2.9	0.02	10.3	2.6
28	Metalliferous ores and metal scrap	2.7	0.4	0.02	1.3	2.6
27	Crude fertilizers	0.5	0.4	0.02	1.5	2.1
33	Petroleum, petroleum products and related materials	8.2	0.1	0.01	0.2	1.4
61	Leather, leather manufactures, n.e.s., furskins	0.4	0.6	0.01	2.2	1.4
	Top 3-Digit Categories					
971	Gold, non-monetary (excluding ores and concentrates)	40.0	51.1	0.88	182.7	104.3
263	Cotton	6.0	7.6	0.48	27.0	56.9
525	Radioactive and associated materials	2.0	14.1	0.24	50.4	29.0
121	Tobacco, unmanufactured; tobacco refuse	1.6	25.4	0.18	91.0	21.1
061	Sugars, molasses and honey	3.2	5.3	0.16	19.1	19.5
661	Lime, cement, and fabricated construction material	2.7	6.2	0.13	22.3	15.2
351	Electric current	3.0	2.7	0.13	9.5	15.1
211	Hides and skins (except furskins), raw	0.9	3.3	0.11	11.8	12.9
664	Glass	3.5	15.4	0.11	55.1	12.6
074	Tea and maté	0.4	5.6	0.08	19.9	9.2
282	Ferrous waste and scrap; scrap ingots of iron or steel	2.1	0.5	0.07	1.9	7.9
054	Vegetables, fresh or simply preserved; roots and tubers	2.3	7.8	0.06	27.8	6.7
268	Wool and other animal hair (including wool tops)	0.4	10.9	0.05	39.1	6.1
111	Non-alcoholic beverages, n.e.s.	0.6	4.6	0.05	16.3	5.5
273	Stone, sand and gravel	0.3	2.2	0.04	7.8	5.0
022	Milk and cream and milk products other than butter	0.9	1.5	0.03	5.3	4.0
288	Non-ferrous base metal waste and scrap, n.e.s.	0.5	5.0	0.03	17.7	3.7
334	Petroleum oils, oils from bituminous minerals, non-crude	8.2	0.2	0.03	0.8	3.3
842	Women's or girls' coats, jackets, suits, shorts, dresses	2.0	2.5	0.03	9.0	3.0
023	Butter and other fats and oils derived from milk	0.1	0.7	0.02	2.4	2.8
001	Live animals (not fish, molluscs, aquatic invertebrates)	0.3	11.9	0.02	42.7	2.8
677	Rails or railway track construction material, of iron, steel	0.1	0.3	0.02	1.0	2.7
659	Floor coverings, etc.	0.3	2.7	0.02	9.7	2.6
891	Arms and ammunition	0.2	4.7	0.02	17.0	2.5
522	Inorganic chemical elements, oxides & halogen salts	0.6	0.2	0.02	0.9	2.2
	Top 4-Digit Categories					
2634	Cotton, carded or combed	0.6	32.4	2.19	115.9	260.7
6645	Cast glass and rolled glass, in sheets or profiles	1.7	95.4	2.05	341.3	243.4
2114	Goatskins and kidskins, raw, dehaired or split	0.0	34.7	1.12	124.3	133.4
9710	Gold, non-monetary (excluding ores and concentrates)	40.0	51.1	0.88	182.7	104.3
1211	Tobacco, not stemmed/stripped	1.5	44.8	0.64	160.4	76.4
2685	Horsehair and other coarse animal hair	0.0	29.1	0.54	104.0	64.7
2683	Fine animal hair, not carded or combed	0.1	43.5	0.53	155.7	62.8
6618	Construction materials of asbestos-cement, fibre-cement	1.3	9.1	0.49	32.7	57.8
2631	Cotton (other than linters), not carded or combed	5.4	7.1	0.46	25.4	55.1
0612	Other beet or cane sugar & chemically pure sucrose	3.1	6.9	0.35	24.7	41.7
0542	Leguminous vegetables, dried, shelled	1.3	17.4	0.33	62.2	39.1
6644	Float glass and surface ground glass, in sheets	1.8	14.2	0.32	50.9	38.4
5251	Radioactive chemical elements & isotopes; compounds	2.0	21.6	0.27	77.3	31.8
2123	Heads, tails, paws and other pieces or cuttings	0.0	95.1	0.24	340.2	28.7
2112	Whole hides and skins of bovine animals	0.3	1.8	0.21	6.4	24.6
2116	Sheepskins and lambskins, with the wool on, raw	0.2	18.2	0.19	65.3	22.3
7782	Electric filament or discharge lamps; arc lamps; parts	3.0	31.4	0.18	112.3	21.2
6612	Portland cement, slag & similar hydraulic cements	1.3	5.2	0.18	18.6	21.0
0173	Liver of any animal, prepared or preserved, n.e.s.	0.1	12.4	0.17	44.4	20.0
8422	Suits and ensembles	0.7	15.9	0.16	56.9	19.3
6951	Hand tools used in agriculture, horticulture, forestry	0.2	13.2	0.13	47.2	16.0
2632	Cotton linters	0.0	1.6	0.13	5.7	15.5
3510	Electric current	3.0	2.7	0.13	9.5	15.1
6532	Fabrics, woven, of synthetic staple fibres, with cotton	0.3	41.6	0.12	148.9	14.6
2682	Other wool, not carded or combed	0.2	14.3	0.12	51.2	14.4

Appendix Table 9.7

Moldova
Reveled Comparative Advantage by SITC Category, 2004

SITC	Commodity Description	Commodity's Per Cent of Total Exports	Country's Per Cent of CIS Exports	Country's Per Cent of World Exports	Revealed Comparative Advantage Relative to: CIS	World
	Top 2-Digit Categories					
21	Hides, skins and furskins, raw	6.6	25.5	0.83	66.6	71.5
11	Beverages	28.2	31.4	0.53	81.8	45.6
42	Fixed vegetable fats & oils, crude, refined or fractionated	4.2	5.6	0.15	14.5	12.7
05	Vegetables and fruit	10.9	14.1	0.11	36.7	9.4
22	Oil-seeds and oleaginous fruits	2.2	9.6	0.10	25.0	8.7
35	Electric current	1.4	1.7	0.08	4.5	7.1
27	Crude fertilizers	1.3	1.6	0.07	4.1	5.9
84	Articles of apparel and clothing accessories	15.9	10.3	0.06	26.8	5.4
83	Travel goods, handbags and similar containers	1.0	48.6	0.05	126.6	4.2
12	Tobacco and tobacco manufactures	0.9	3.2	0.04	8.2	3.4
85	Footwear	2.2	7.8	0.04	20.2	3.4
04	Cereals and cereal preparations	2.7	1.1	0.04	2.9	3.3
08	Feeding stuff for animals (not including unmilled cereals)	0.8	2.7	0.03	6.9	2.4
06	Sugars, sugar preparations and honey	0.5	0.8	0.02	2.2	2.1
02	Dairy products and birds' eggs	1.0	1.0	0.02	2.5	1.9
	Top 3-Digit Categories					
211	Hides and skins (except furskins), raw	6.6	34.9	1.15	90.9	99.6
112	Alcoholic beverages	28.2	35.1	0.64	91.5	55.6
421	Fixed vegetable fats and oils, "soft", crude, refined	4.2	5.7	0.27	14.8	23.3
059	Fruit and vegetable juices, unfermented, no added spirit	1.9	19.1	0.25	49.7	21.7
043	Barley, unmilled	0.8	1.6	0.25	4.1	21.3
273	Stone, sand and gravel	1.3	12.3	0.23	32.2	20.3
057	Fruit and nuts (not including oil nuts), fresh or dried	6.5	23.2	0.17	60.4	14.8
044	Maize (not including sweet corn), unmilled	1.6	8.4	0.14	22.0	12.0
121	Tobacco, unmanufactured; tobacco refuse	0.8	18.0	0.13	46.9	10.9
659	Floor coverings, etc.	1.1	13.4	0.11	34.8	9.2
222	Oil-seeds & oleaginous fruits used for oils extraction	2.2	10.3	0.11	26.8	9.1
025	Eggs, birds' & egg yolks, fresh or preserved, albumin	0.2	5.5	0.10	14.3	8.8
056	Vegetables, roots & tubers, prepared or preserved, n.e.s.	1.5	18.1	0.10	47.2	8.3
843	Men's or boys' articles of textile fabrics, knitted, crocheted	1.1	39.1	0.08	101.8	7.2
842	Women's or girls' articles of textile fabrics, not knitted	4.7	8.1	0.08	21.2	7.1
351	Electric current	1.4	1.7	0.08	4.5	7.1
665	Glassware	1.2	5.7	0.08	14.8	6.8
841	Men's or boys' articles of textile fabrics, not knitted	3.3	10.1	0.07	26.2	6.3
845	Articles of apparel, of textile fabrics, knitted or not, n.e.s.	5.9	15.5	0.07	40.4	6.3
058	Fruit, preserved, & fruit preparations (not fruit juices)	0.6	6.7	0.07	17.5	6.1
811	Prefabricated buildings	0.2	4.8	0.05	12.4	4.4
831	Travel goods, handbags and similar containers	1.0	48.6	0.05	126.6	4.2
288	Non-ferrous base metal waste and scrap, n.e.s.	0.6	7.4	0.05	19.4	4.0
264	Jute & other textile bast fibres, n.e.s.; tow, waste	0.0	96.3	0.04	251.0	3.7
712	Steam turbines & other vapour turbines, parts, n.e.s.	0.1	1.3	0.04	3.3	3.6
	Top 4-Digit Categories					
2112	Whole hides and skins of bovine animals	5.1	39.0	4.53	101.8	393.0
2224	Sunflower seeds	2.2	14.4	1.83	37.6	158.7
4215	Sunflower seed or safflower oil and fractions thereof	4.1	5.9	1.68	15.4	145.3
2732	Calcareous stones used for lime or cement manufacturing	1.3	44.1	1.55	115.1	134.6
1121	Wine of fresh grapes (including fortified wine)	25.4	76.4	1.24	199.2	107.3
0173	Liver of any animal, prepared or preserved, n.e.s.	0.2	61.1	0.83	159.2	71.9
0574	Apples, fresh	2.5	48.0	0.65	125.2	56.1
0441	Maize seed (not including sweet corn), unmilled	0.8	60.5	0.63	157.7	54.5
6595	Carpets and other textile floor coverings, woven	1.1	32.0	0.49	83.5	42.4
1211	Tobacco, not stemmed/stripped	0.8	34.1	0.49	88.8	42.3
2111	Bovine or equine hides and skins, raw	1.5	29.4	0.47	76.6	40.8
2649	Jute & other textile bast fibres, n.e.s.; tow, waste	0.0	97.0	0.47	252.9	40.6
0599	Juice of any single fruit or vegetable or their mixtures	1.9	21.2	0.46	55.3	39.6
0577	Edible nuts, fresh or dried, shelled or peeled	2.8	23.6	0.45	61.6	38.9
0615	Molasses resulting from the extraction or refining of sugar	0.1	9.0	0.28	23.6	24.6
8451	Babies' garments and clothing accessories	1.5	56.3	0.26	146.9	22.6
7223	Track-laying tractors	0.2	7.4	0.25	19.2	21.8
0430	Barley, unmilled	0.8	1.6	0.25	4.1	21.3
8421	Overcoats, car coats, capes, anoraks and similar articles	1.6	7.9	0.24	20.7	20.5
6651	Glass containers, glass stoppers and closures	1.1	14.1	0.23	36.8	19.7
0581	Jams, fruit jellies, marmalades, fruit or nut puré & pastes	0.3	24.3	0.21	63.2	18.6
8412	Men's or boys' suits and ensembles	1.0	12.8	0.21	33.4	17.8
7918	Railway or tramway freight and maintenance cars	0.5	0.6	0.20	1.7	17.7
1124	Spirits, liqueurs and other spirituous beverages, n.e.s.	2.7	8.8	0.18	22.9	15.6
0812	Bran, sharps & residues of cereals or leguminous plants	0.1	2.0	0.16	5.1	14.0

Appendix Table 9.8

Russia
Revealed Comparative Advantage by SITC Category, 2004

SITC	Commodity Description	Commodity's Per Cent of Total Exports	Country's Per Cent of CIS Exports	Country's Per Cent of World Exports	Revealed Comparative Advantage Relative to: CIS	World
	Top 2-Digit Categories					
33	Petroleum, petroleum products and related materials	41.1	77.8	14.72	1.1	7.0
93	Special transactions & commodities not classified by kind	16.9	98.3	13.93	1.4	6.6
56	Fertilizers (other than crude)	1.6	62.9	13.36	0.9	6.3
34	Gas, natural and manufactured	7.0	83.3	11.65	1.2	5.5
24	Cork and wood	2.2	85.7	8.79	1.2	4.2
32	Coal, coke and briquettes	1.8	73.8	8.23	1.0	3.9
68	Non-ferrous metals	5.9	79.6	6.48	1.1	3.1
67	Iron and steel	8.2	51.7	5.56	0.7	2.6
23	Crude rubber (including synthetic and reclaimed)	0.4	98.5	4.15	1.4	2.0
28	Metalliferous ores and metal scrap	1.5	51.0	3.07	0.7	1.5
52	Inorganic chemicals	0.8	56.7	2.96	0.8	1.4
25	Pulp and waste paper	0.4	99.7	2.83	1.4	1.3
35	Electric current	0.2	55.0	2.62	0.8	1.2
27	Crude fertilizers	0.2	49.3	2.10	0.7	1.0
63	Cork and wood manufactures (excluding furniture)	0.3	68.4	1.22	1.0	0.6
	Top 3-Digit Categories					
247	Wood in the rough or roughly squared	1.3	92.9	28.76	1.3	13.6
683	Nickel	1.8	99.9	25.82	1.4	12.2
333	Petroleum oils, oils from bituminous minerals, crude	30.5	79.4	19.94	1.1	9.4
672	Ingots and semi-finished products, of iron or steel	2.6	58.1	18.52	0.8	8.8
343	Natural gas, whether or not liquefied	6.8	84.0	14.17	1.2	6.7
931	Special transactions & commodities not classified by kind	16.9	98.3	13.93	1.4	6.6
562	Fertilizers (other than crude)	1.6	62.9	13.36	0.9	6.3
671	Pig-iron, spiegeleisen, sponge iron, iron or steel powders	1.2	51.3	10.79	0.7	5.1
274	Sulphur and unroasted iron pyrites	0.0	67.1	9.96	1.0	4.7
718	Power-generating machinery; parts thereof, n.e.s.	0.5	90.7	9.30	1.3	4.4
282	Ferrous waste and scrap; scrap ingots of iron or steel	1.2	72.4	9.08	1.0	4.3
334	Petroleum oils, oils from bituminous minerals, non-crude	10.6	74.1	8.93	1.1	4.2
321	Coal, whether or not pulverized, but not agglomerated	1.5	84.2	8.92	1.2	4.2
673	Flat-rolled products of iron or non-alloy steel, coated	2.4	52.7	7.95	0.7	3.8
272	Fertilizers, crude	0.1	93.2	7.74	1.3	3.7
232	Synthetic rubber; reclaimed rubber; rubber waste & scrap	0.4	98.5	7.61	1.4	3.6
684	Aluminium	2.7	86.3	7.36	1.2	3.5
689	Miscellaneous non-ferrous base metals and cermets	0.2	73.8	6.72	1.0	3.2
325	Coke and semi-coke of coal, lignite or peat; retort carbon	0.3	45.5	6.47	0.6	3.1
677	Rails or railway track construction material of iron or steel	0.1	76.0	6.00	1.1	2.8
248	Wood, simply worked, and railway sleepers of wood	0.9	77.2	4.62	1.1	2.2
524	Inorganic chemicals; compounds of precious metals	0.1	76.5	4.41	1.1	2.1
682	Copper	1.1	60.6	4.10	0.9	1.9
522	Inorganic chemical elements, oxides and halogen salts	0.5	50.8	3.94	0.7	1.9
043	Barley, unmilled	0.1	20.6	3.23	0.3	1.5
	Top 4-Digit Categories					
2474	Wood of coniferous species, rough or roughly squared	1.0	94.9	38.60	1.3	18.2
6712	Pig-iron & spiegeleisen, in blocks or other primary forms	0.7	81.9	35.54	1.2	16.8
6831	Nickel and nickel alloys, unwrought	1.8	100.0	35.31	1.4	16.7
2784	Asbestos	0.0	79.7	33.96	1.1	16.0
7187	Nuclear reactors, and parts thereof	0.5	99.7	27.55	1.4	13.0
2514	Chemical wood pulp, soda or sulphate, unbleached	0.1	100.0	24.44	1.4	11.5
6726	Semi-finished products of iron or non-alloy steel	2.1	64.6	22.89	0.9	10.8
6727	Semi-finished products of iron or non-alloy steel	0.4	40.6	21.10	0.6	10.0
5629	Fertilizers, n.e.s.	0.6	92.8	20.08	1.3	9.5
3330	Petroleum oils and oils from bituminous minerals, crude	30.5	79.4	19.94	1.1	9.4
3211	Anthracite	0.1	37.0	18.85	0.5	8.9
3432	Natural gas, in the gaseous state	6.8	88.2	18.57	1.3	8.8
7933	Vessels and other floating structures for breaking up	0.0	99.5	18.41	1.4	8.7
5623	Mineral or chemical fertilizers, potassic	0.4	49.0	16.53	0.7	7.8
2475	Wood of non-coniferous species, rough/roughly squared	0.3	86.1	15.66	1.2	7.4
9310	Special transactions & commodities not classified by kind	16.9	98.3	13.93	1.4	6.6
6841	Aluminium and aluminium alloys, unwrought	2.3	85.3	13.74	1.2	6.5
8974	Other articles of precious metal	0.1	99.4	13.60	1.4	6.4
5621	Mineral or chemical fertilizers, nitrogenous	0.5	54.1	12.89	0.8	6.1
6751	Flat-rolled products of silicon-electrical steel	0.2	99.0	12.49	1.4	5.9
6823	Copper bars, rods and profiles	0.2	88.3	11.99	1.3	5.7
6898	Intermediate products of cobalt metallurgy	0.1	70.7	11.62	1.0	5.5
2823	Other ferrous waste and scrap	1.0	75.7	11.40	1.1	5.4
7112	Auxiliary plant for use with boilers; vapour power units	0.0	98.3	11.32	1.4	5.3
2723	Natural calcium phosphates and phosphatic chalk	0.1	94.8	11.09	1.3	5.2

Appendix Table 9.9

Tajikistan
Revealed Comparative Advantage by SITC Category, 2000

SITC	Commodity Description	Commodity's Per Cent of Total Exports	Country's Per Cent of CIS Exports	Country's Per Cent of World Exports	Revealed Comparative Advantage Relative to: CIS	World
	Top 2-Digit Categories					
35	Electric current	13.3	11.2	0.53	41.6	65.9
26	Textile fibres (other than wool tops) and waste thereof	12.1	9.9	0.32	36.7	39.2
68	Non-ferrous metals	53.7	2.8	0.23	10.4	28.0
97	Gold, non-monetary (excluding gold ores & concentrates)	3.5	4.3	0.07	15.9	9.1
12	Tobacco and tobacco manufactures	0.8	2.1	0.03	7.7	3.2
05	Vegetables and fruit	3.2	2.9	0.02	10.8	2.8
79	Other transport equipment	5.5	1.0	0.02	3.6	2.4
65	Textile yarn, fabrics, made-up articles, n.e.s.	2.7	1.4	0.01	5.0	1.1
59	Chemical materials and products, n.e.s.	1.2	1.1	0.01	4.3	1.0
71	Power-generating machinery and equipment	1.7	0.4	0.01	1.6	0.6
22	Oil-seeds and oleaginous fruits	0.2	0.5	0.01	1.8	0.6
27	Crude fertilizers	0.1	0.1	0.00	0.4	0.5
52	Inorganic chemicals	0.2	0.1	0.00	0.2	0.3
84	Articles of apparel and clothing accessories	0.8	0.3	0.00	1.3	0.3
29	Crude animal and vegetable materials, n.e.s.	0.1	0.6	0.00	2.3	0.2
	Top 3-Digit Categories					
263	Cotton	12.0	14.6	0.93	54.4	114.6
684	Aluminium	53.7	6.7	0.57	24.7	70.1
351	Electric current	13.3	11.2	0.53	41.6	65.9
593	Explosives and pyrotechnic products	1.2	14.7	0.44	54.5	54.8
121	Tobacco, unmanufactured; tobacco refuse	0.8	12.4	0.09	46.2	10.7
971	Gold, non-monetary (excluding gold ores & concentrates)	3.5	4.3	0.07	15.9	9.1
059	Fruit & vegetable juices, unfermented, no added spirit	0.5	3.1	0.04	11.7	5.1
057	Fruit and nuts (not including oil nuts), fresh or dried	2.1	5.3	0.04	19.6	4.8
652	Cotton fabrics, woven (except narrow or special fabrics)	1.5	4.5	0.04	16.7	4.6
792	Aircraft & associated equipment; spacecraft; parts thereof	5.3	3.5	0.03	12.8	4.0
716	Rotating electric plant, and parts thereof, n.e.s.	1.6	3.4	0.03	12.6	3.2
651	Textile yarn	1.0	2.0	0.02	7.3	2.2
056	Vegetables, roots & tubers, prepared or preserved, n.e.s.	0.4	3.1	0.02	11.4	2.0
685	Lead	0.0	0.3	0.01	1.0	1.6
273	Stone, sand and gravel	0.1	0.7	0.01	2.5	1.6
525	Radioactive and associated materials	0.1	0.7	0.01	2.6	1.5
261	Silk	0.0	0.8	0.01	3.0	1.4
841	Men's or boys' articles of textile fabrics, not knitted	0.7	1.4	0.01	5.3	1.3
791	Railway vehicles and associated equipment	0.2	0.1	0.01	0.3	1.1
265	Vegetable textile fibres (except cotton and jute) & waste	0.0	0.4	0.01	1.4	1.1
693	Wire products and fencing grills	0.1	0.3	0.01	1.1	0.9
268	Wool and other animal hair (including wool tops)	0.1	1.5	0.01	5.6	0.9
524	Inorganic chemicals; compounds of precious metals	0.0	0.1	0.01	0.4	0.8
054	Vegetables, fresh or simply preserved; roots and tubers	0.2	0.7	0.01	2.8	0.7
222	Oil-seeds & oleaginous fruits used for oils extraction	0.2	0.5	0.01	1.9	0.7
	Top 4-Digit Categories					
2634	Cotton, carded or combed	1.1	57.9	3.92	215.0	483.8
5931	Propellent powders and other prepared explosives	1.2	25.3	1.29	93.9	159.1
6841	Aluminium and aluminium alloys, unwrought	53.5	7.7	1.24	28.7	153.6
7921	Helicopters	5.2	13.1	1.19	48.8	146.6
2631	Cotton (other than linters), not carded or combed	10.9	13.9	0.91	51.7	112.1
3510	Electric current	13.3	11.2	0.53	41.6	65.9
6593	"Kelem", "Schumacks", and similar hand-woven rugs	0.0	11.7	0.29	43.4	36.4
6522	Cotton fabrics, woven, unbleached	1.5	9.7	0.27	36.2	33.2
7811	Vehicles for travelling on snow, golf cars, similar vehicles	0.3	8.0	0.16	29.7	19.4
7165	Generating sets for rotating electric plant	1.6	11.1	0.13	41.3	16.1
2221	Groundnuts (peanuts), not roasted or otherwise cooked	0.2	83.9	0.12	311.7	15.1
2657	Coconut fibres (coir); tow, noils and waste of these fibres	0.0	99.2	0.11	368.3	13.4
0591	Orange juice	0.5	29.8	0.10	110.6	12.5
8412	Men's or boys' suits and ensembles	0.6	5.6	0.09	20.6	11.0
2614	Silkworm cocoons and silk waste	0.0	4.0	0.08	14.8	10.5
0579	Fruit, fresh or dried, n.e.s.	1.5	12.8	0.08	47.6	10.4
9710	Gold, non-monetary (excluding gold ores & concentrates)	3.5	4.3	0.07	15.9	9.1
6513	Cotton yarn, other than sewing thread	1.0	8.5	0.07	31.5	9.0
2683	Fine animal hair, not carded or combed	0.0	5.9	0.07	21.8	8.8
2879	Ores and concentrates of other non-ferrous base metals	0.1	0.5	0.06	1.9	7.0
0575	Grapes, fresh or dried	0.3	22.2	0.06	82.4	6.8
2633	Cotton waste (including yarn waste and garnetted stock)	0.0	4.1	0.05	15.3	6.6
7471	Pressure-reducing valves	0.1	3.1	0.05	11.5	5.6
0574	Apples, fresh	0.2	3.4	0.05	12.5	5.6
7918	Railway or tramway freight and maintenance cars	0.2	0.1	0.04	0.5	5.5

Note: Although data for Tajikistan are for 2000, data for the other CIS (except Turkmenistan) and the world are for 2004.

Appendix Table 9.10

Turkmenistan
Revealed Comparative Advantage by SITC Category, 2000

SITC	Commodity Description	Commodity's Per Cent of Total Exports	Country's Per Cent of CIS Exports	Country's Per Cent of World Exports	Revealed Comparative Advantage Relative to: CIS	World
	Top 2-Digit Categories					
34	Gas, natural and manufactured	49.8	8.3	1.16	8.5	39.4
26	Textile fibres (other than wool tops) and waste thereof	9.6	28.4	0.91	29.1	31.1
33	Petroleum, petroleum products and related materials	30.5	0.8	0.15	0.8	5.2
35	Electric current	0.7	2.0	0.10	2.1	3.3
21	Hides, skins and furskins, raw	0.2	2.0	0.06	2.0	2.2
65	Textile yarn, fabrics, made-up articles, n.e.s.	4.1	7.6	0.05	7.8	1.7
93	Special transactions & commodities not classified by kind	1.5	0.1	0.02	0.1	0.6
52	Inorganic chemicals	0.3	0.3	0.02	0.3	0.6
84	Articles of apparel and clothing accessories	1.6	2.6	0.02	2.6	0.5
56	Fertilizers (other than crude)	0.1	0.1	0.01	0.1	0.4
29	Crude animal and vegetable materials, n.e.s.	0.1	3.9	0.01	4.0	0.4
27	Crude fertilizers	0.1	0.3	0.01	0.3	0.4
42	Fixed vegetable fats & oils, crude, refined or fractionated	0.1	0.3	0.01	0.3	0.3
28	Metalliferous ores and metal scrap	0.3	0.1	0.01	0.1	0.3
79	Other transport equipment	0.6	0.4	0.01	0.4	0.2
	Top 3-Digit Categories					
263	Cotton	9.3	41.2	2.61	42.2	89.0
343	Natural gas, whether or not liquefied	49.7	8.5	1.43	8.7	48.8
261	Silk	0.1	83.2	1.18	85.4	40.3
334	Petroleum oils, oils from bituminous minerals, non-crude	20.5	2.0	0.24	2.0	8.2
651	Textile yarn	2.2	15.4	0.14	15.8	4.7
652	Cotton fabrics, woven (except narrow or special fabrics)	1.2	12.5	0.10	12.8	3.6
351	Electric current	0.7	2.0	0.10	2.1	3.3
333	Petroleum oils, oils from bituminous minerals, crude	9.7	0.3	0.09	0.4	3.0
211	Hides and skins (except furskins), raw	0.2	2.5	0.08	2.5	2.8
655	Knitted or crocheted fabrics, n.e.s.	0.6	33.9	0.08	34.8	2.6
268	Wool and other animal hair (including wool tops)	0.1	13.9	0.06	14.3	2.2
335	Residual petroleum products, n.e.s., and related materials	0.4	2.5	0.06	2.6	2.2
288	Non-ferrous base metal waste and scrap, n.e.s.	0.3	8.1	0.05	8.3	1.7
342	Liquefied propane and butane	0.2	1.3	0.04	1.3	1.2
274	Sulphur and unroasted iron pyrites	0.0	0.2	0.03	0.2	1.1
522	Inorganic chemical elements, oxides and halogen salts	0.3	0.4	0.03	0.4	1.0
845	Articles of apparel, of textile fabrics; n.e.s.	0.9	5.7	0.03	5.9	0.9
843	Men's or boys' articles of textile fabrics, knitted/crocheted	0.1	11.5	0.02	11.8	0.8
841	Men's or boys' articles of textile fabrics, not knitted	0.4	3.3	0.02	3.4	0.8
659	Floor coverings, etc.	0.1	2.5	0.02	2.6	0.7
212	Furskins, raw (including heads, tails, pieces or cuttings)	0.0	0.6	0.02	0.6	0.6
931	Special transactions & commodities not classified by kind	1.5	0.1	0.02	0.1	0.6
421	Fixed vegetable fats and oils, "soft", crude, refined	0.1	0.3	0.02	0.3	0.5
693	Wire products and fencing grills	0.0	0.6	0.02	0.6	0.5
523	Metal salts and peroxysalts, of inorganic acids	0.1	0.5	0.01	0.5	0.5
	Top 4-Digit Categories					
2632	Cotton linters	0.3	96.7	7.95	99.3	271.1
4212	Cotton seed oil and its fractions	0.1	65.8	3.01	67.5	102.5
2631	Cotton (other than linters), not carded or combed	8.9	41.2	2.69	42.2	91.7
6593	"Kelem", "Schumacks", and similar hand-woven rugs	0.1	76.2	1.92	78.2	65.5
3432	Natural gas, in the gaseous state	49.7	8.9	1.87	9.1	64.0
2613	Raw silk (not thrown)	0.1	91.8	1.20	94.2	41.0
2614	Silkworm cocoons and silk waste	0.0	49.8	1.06	51.2	36.1
2633	Cotton waste (including yarn waste and garnetted stock)	0.1	74.1	0.96	76.0	32.7
6513	Cotton yarn, other than sewing thread	2.2	67.6	0.58	69.4	19.7
2114	Goatskins & kidskins, raw, dehaired or split	0.0	15.2	0.49	15.6	16.8
5622	Mineral or chemical fertilizers, phosphatic	0.1	50.2	0.45	51.5	15.4
2682	Other wool, not carded or combed	0.1	34.1	0.29	35.0	9.8
2116	Sheepskins and lambskins, with the wool on, raw	0.1	27.9	0.29	28.7	9.8
6524	Other woven fabrics containing at least 85% cotton finished	0.9	75.9	0.26	77.9	8.9
3354	Petroleum bitumen and coke; bituminous mixtures, n.e.s.	0.4	6.3	0.20	6.5	7.0
2924	Plants and parts of plants used in perfumery, in pharmacy	0.1	21.8	0.18	22.4	6.1
2112	Whole hides and skins of bovine animals, preserved	0.1	1.5	0.17	1.5	5.9
5222	Other chemical elements	0.3	4.0	0.13	4.1	4.4
6643	Drawn glass and blown glass, in sheets	0.0	4.1	0.10	4.2	3.3
3510	Electric current	0.7	2.0	0.10	2.1	3.3
6552	Other knitted or crocheted fabrics, not coated/laminated	0.6	54.1	0.09	55.5	3.1
3330	Petroleum oils and oils from bituminous minerals, crude	9.7	0.3	0.09	0.4	3.0
6522	Cotton fabrics, woven, unbleached	0.1	3.1	0.09	3.2	2.9
2783	Sodium chloride, pure, and common salt; sea water	0.0	1.6	0.09	1.6	2.9
8454	T-shirts, singlets and other vests, knitted or crocheted	0.8	18.3	0.09	18.8	2.9

Note: Although data for Turkmenistan are for 2000, data for the other CIS (except Tajikistan) and the world are for 2004.

Appendix Table 9.11

Ukraine
Revealed Comparative Advantage by SITC Category, 2004

SITC	Commodity Description	Commodity's Per Cent of Total Exports	Country's Per Cent of CIS Exports	Country's Per Cent of World Exports	Revealed Comparative Advantage Relative to: CIS	World
	Top 2-Digit Categories					
67	Iron and steel	34.9	39.7	4.26	3.1	11.2
56	Fertilizers (other than crude)	2.3	16.6	3.52	1.3	9.2
32	Coal, coke and briquettes	2.7	20.0	2.23	1.6	5.8
42	Fixed vegetable fats & oils, crude, refined or fractionated	1.6	72.5	1.91	5.7	5.0
28	Metalliferous ores and metal scrap	4.2	25.6	1.54	2.0	4.0
04	Cereals and cereal preparations	2.9	39.8	1.35	3.1	3.5
52	Inorganic chemicals	1.7	23.0	1.20	1.8	3.1
27	Crude fertilizers	0.7	27.8	1.19	2.2	3.1
02	Dairy products and birds' eggs	1.4	44.6	1.04	3.5	2.7
79	Other transport equipment	5.4	45.3	0.92	3.6	2.4
24	Cork and wood	1.2	8.9	0.91	0.7	2.4
21	Hides, skins and furskins, raw	0.2	25.0	0.81	2.0	2.1
35	Electric current	0.4	14.3	0.68	1.1	1.8
22	Oil-seeds and oleaginous fruits	0.5	64.6	0.68	5.1	1.8
06	Sugars, sugar preparations and honey	0.4	22.8	0.64	1.8	1.7
	Top 3-Digit Categories					
672	Ingots and semi-finished products, of iron or steel	9.5	38.1	12.15	3.0	31.8
043	Barley, unmilled	1.1	72.2	11.33	5.7	29.7
791	Railway vehicles and associated equipment	4.5	74.4	9.50	5.9	24.9
325	Coke and semi-coke of coal, lignite or peat; retort carbon	2.0	54.5	7.75	4.3	20.3
673	Flat-rolled products of iron or non-alloy steel, coated	10.1	39.8	6.00	3.1	15.7
671	Pig-iron, spiegeleisen, sponge iron, iron or steel powders	3.6	27.1	5.69	2.1	14.9
676	Iron and steel bars, rods, angles, shapes and sections	6.9	54.7	4.92	4.3	12.9
562	Fertilizers (other than crude)	2.3	16.6	3.52	1.3	9.2
421	Fixed vegetable fats and oils, "soft", crude, refined	1.6	73.7	3.49	5.8	9.1
281	Iron ore and concentrates	1.8	38.1	3.46	3.0	9.1
285	Aluminium ores and concentrates (including alumina)	0.7	76.0	3.42	6.0	8.9
245	Fuel wood (excluding wood waste) and wood charcoal	0.0	61.9	2.98	4.9	7.8
679	Tubes, pipes and hollow profiles, of iron or steel	3.3	53.2	2.64	4.2	6.9
522	Inorganic chemical elements, oxides and halogen salts	1.5	27.8	2.16	2.2	5.7
282	Ferrous waste and scrap; scrap ingots of iron or steel	1.5	16.6	2.09	1.3	5.5
047	Other cereal meals and flours	0.0	46.4	1.95	3.7	5.1
278	Other crude minerals	0.5	40.1	1.76	3.2	4.6
678	Wire of iron or steel	0.3	36.1	1.73	2.8	4.5
073	Chocolate and food preparations containing cocoa, n.e.s.	0.6	51.7	1.69	4.1	4.4
247	Wood in the rough or roughly squared	0.4	5.2	1.60	0.4	4.2
023	Butter and other fats and oils derived from milk	0.2	41.9	1.52	3.3	4.0
041	Wheat (including spelt) and meslin, unmilled	0.9	23.3	1.51	1.8	3.9
044	Maize (not including sweet corn), unmilled	0.5	89.2	1.46	7.0	3.8
024	Cheese and curd	0.7	62.6	1.35	4.9	3.5
677	Rails or railway track construction material of iron/steel	0.1	16.3	1.29	1.3	3.4
	Top 4-Digit Categories					
6727	Semi-finished products of iron or non-alloy steel	3.3	55.5	28.87	4.4	75.6
6113	Whole bovine skin leather, without hair on	0.1	33.6	24.13	2.6	63.2
7918	Railway or tramway freight and maintenance cars	1.8	69.8	22.32	5.5	58.4
4215	Sunflower seed or safflower oil and fractions thereof	1.6	76.3	21.69	6.0	56.8
0430	Barley, unmilled	1.1	72.2	11.33	5.7	29.7
6726	Semi-finished products of iron or non-alloy steel	5.8	31.7	11.25	2.5	29.4
7919	Equipment and parts for railway or tramway vehicles	2.5	83.1	11.04	6.5	28.9
3211	Anthracite	0.4	21.6	10.99	1.7	28.7
6724	Ingots and other primary forms, of iron or steel	0.3	72.4	10.24	5.7	26.8
5621	Mineral or chemical fertilizers, nitrogenous	2.2	38.9	9.26	3.1	24.2
3353	Pitch and pitch coke, obtained from mineral tars	0.1	88.6	9.22	7.0	24.1
2224	Sunflower seeds	0.3	66.7	8.47	5.3	22.2
6712	Pig-iron & spiegeleisen, in blocks or other primary forms	0.9	18.1	7.86	1.4	20.6
3250	Coke and semi-coke of coal, lignite or peat; retort carbon	2.0	54.5	7.75	4.3	20.3
6761	Bars and rods, hot-rolled, in coils, of iron or steel	1.8	65.2	7.11	5.1	18.6
6714	Ferromanganese	0.5	15.9	6.90	1.3	18.0
6763	Bars & rods of iron or steel, cold-formed or cold-finished	0.4	37.2	5.89	2.9	15.4
7181	Hydraulic turbines and water-wheels, and parts thereof	0.1	68.3	5.75	5.4	15.0
6715	Other ferro-alloys (excluding radioactive ferro-alloys)	2.2	46.0	5.66	3.6	14.8
2816	Iron ore agglomerates (sinters, pellets, briquettes, etc.)	0.9	50.7	5.62	4.0	14.7
0812	Bran, sharps & residues of cereals or leguminous plants	0.1	65.3	5.37	5.1	14.1
5226	Other inorganic bases and metal oxides, hydroxides	1.3	31.3	5.35	2.5	14.0
7912	Other rail locomotives; locomotive tenders	0.2	78.0	5.11	6.1	13.4
6791	Tubes, pipes & hollow profiles, seamless, of iron or steel	2.1	58.0	4.92	4.6	12.9
6419	Converted paper and paperboard, n.e.s.	0.3	54.2	4.84	4.3	12.7

Appendix Table 10

New and Deleted Manufacturing Products from CIS Exports

		New Export Products							Deleted Export Products					
	Number of HS Items Beginning Year	Number of HS Items	Value in $ Millions Ending Year	Per Cent of Manufactures Ending Year	Per Cent of Manufactues in 2004	Per Cent of Total Exports, Ending Year	PRODY Unweighted Relative to Total	PRODY Weighted Relative to Total	Number of HS Items	Value in $ Millions, Beginning Year	Per Cent of Manufactures Beginning Year	Per Cent of Total Exports, Beginning Year	PRODY Unweighted Relative to Total	PRODY Weighted Relative to Total
Armenia														
2000 to 2004	765	539	32.28	8.81	8.81	5.23	1.21	1.27	294	13.69	7.86	4.80	1.21	1.07
Azerbaijan														
2001 to 2004	851	320	168.68	51.19	51.19	4.69	1.02	1.04	363	9.61	10.22	0.42	1.07	1.08
Belarus														
2001 to 2004	2,947	272	15.50	0.19	0.19	0.12	1.23	1.14	291	30.64	0.60	0.41	1.22	1.05
Georgia														
2001 to 2004	962	450	20.09	8.54	8.54	3.10	1.54	1.47	394	7.10	6.57	2.22	1.47	1.39
Kyrgyzstan														
2001 to 2004	1,229	401	9.50	5.12	5.12	1.32	1.10	0.84	530	10.40	10.42	2.18	1.04	1.10
Moldova														
2001 to 2004	1,295	505	31.76	8.98	8.98	3.22	1.26	1.17	350	9.37	4.73	1.65	1.39	1.32
Russia														
1996 to 2000	3,570	127	13.79	0.06	0.49	0.01	1.06	1.39	202	620.30	2.68	0.70	0.90	0.66
2000 to 2004	3,495	120	1,070.88	2.82	2.82	0.59	1.11	1.00	229	988.73	4.17	0.96	0.98	1.07
Ukraine														
1999 to 2002	2,765	334	183.80	1.55		1.04	1.21	1.04	319	171.74	2.32	1.54	1.14	0.41

Source: Compiled from official statistics of the United Nations Comtrade database.

Appendix Table 11.1

Armenia, 2000-2004
Intra-Industry Trade Index by 1-Digit SITC-Rev.3

		3-Digit Level						4-Digit Level						5-Digit Level					
		2000	2002	2004	Export	Import	2004-UN	2000	2002	2004	Export	Import	2004-UN	2000	2002	2004	Export	Import	2004-UN
0	Food And Live Animals	3.0	6.4	12.7	2.4	85.0	12.7	2.8	5.5	10.1	3.6	86.2	10.1	1.2	1.9	6.8	5.3	87.9	9.5
1	Beverages And Tobacco	8.2	12.5	23.0	45.0	32.0	23.0	8.1	12.5	22.4	45.3	32.3	22.4	7.3	9.2	12.0	50.5	37.5	6.2
2	Crude Materials, Inedible	3.8	3.9	5.3	83.4	11.3	5.3	1.9	1.6	4.6	83.7	11.6	4.6	1.3	1.5	4.5	83.8	11.7	3.7
3	Fuels, Lubricants, Etc.	10.6	6.3	4.6	6.4	88.9	4.6	10.6	6.3	4.6	6.4	88.9	9.7	10.6	6.3	4.6	6.4	88.9	0.5
4	Animal, Veg Oils, Fats	0.0	0.0	0.6	0.0	99.4	0.6	0.0	0.0	0.6	0.0	99.4	0.6	0.0	0.0	0.6	0.0	99.4	0.6
5	Chemicals	6.9	4.7	4.3	0.0	95.7	4.3	6.3	4.2	3.9	0.2	95.9	3.9	5.6	3.3	3.3	0.5	96.2	3.8
6	Manufactured Goods	71.5	71.9	69.0	16.3	14.7	69.0	69.1	71.0	65.1	18.2	16.7	66.1	9.1	7.8	13.1	44.2	42.7	13.4
7	Machines, Transport Equip.	19.7	19.0	19.6	1.6	78.8	19.6	16.7	14.5	16.8	3.0	80.2	16.8	9.9	9.3	12.7	5.1	82.2	15.5
8	Misc. Manufactured Articles	21.1	21.6	32.1	30.4	37.5	32.1	17.8	11.9	29.4	31.8	38.8	29.4	13.9	9.8	27.4	32.7	39.8	28.2
9	Goods Not Classed By Kind	87.1	84.2	75.4	0.0	24.6	75.4	87.1	84.2	75.4	0.0	24.6	75.4	87.1	84.2	75.4	0.0	24.6	75.7
	Total Trade	28.2	36.5	37.5	16.6	45.9	37.5	26.7	35.0	35.2	17.7	47.0	37.6	9.1	9.9	15.0	27.9	57.2	18.1
	Total, Adjusted for the Trade Balance	54.3	63.3	53.0	.	.	53.0	51.6	60.6	49.8	.	.	49.8	17.6	17.2	21.2	.	.	20.9
	Manufactures, 5-8 minus 68	43.9	52.9	51.0	11.4	37.7	51.0	41.9	50.7	48.4	12.7	38.9	48.9	9.4	8.1	14.7	29.5	55.8	15.6
	Manuf., Adjusted for Manuf. Balance	75.9	91.5	69.1	.	.	69.1	72.5	87.7	65.6	.	.	65.6	16.3	14.0	19.9	.	.	19.4

Notes: "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero
2004UN uses only UN reported data for that digit level.
The export column refers to amount of net exports for a sector while import refers to net imports; at the disaggregated level, trade which is not IIT is either net export or net import. At the aggregate level IIT+Export+Import=1.

Appendix Table 11.2

Azerbaijan, 2000-2004
Intra-Industry Trade Index by 1-Digit SITC-Rev.3

		3-Digit Level						4-Digit Level						5-Digit Level					
		2000	2002	2004	Export	Import	2004-UN	2000	2002	2004	Export	Import	2004-UN	2000	2002	2004	Export	Import	2004-UN
0	Food And Live Animals	10.9	13.9	19.3	11.9	68.8	19.3	7.1	11.7	17.1	13.0	69.8	17.1	5.4	4.9	5.8	18.7	75.5	6.7
1	Beverages And Tobacco	62.8	80.6	70.1	0.0	29.9	70.1	23.1	66.1	59.2	5.4	35.3	59.2	19.4	57.2	40.9	14.6	44.5	11.3
2	Crude Materials, Inedible	35.2	28.4	55.4	19.8	24.8	55.4	2.9	2.5	2.4	46.3	51.3	2.4	2.8	2.1	1.8	46.6	51.6	8.4
3	Fuels, Lubricants, Etc.	4.7	2.7	5.6	85.3	9.1	5.6	4.0	2.4	5.6	85.3	9.1	0.4	4.0	2.2	5.5	85.3	9.1	0.2
4	Animal, Veg Oils, Fats	51.0	40.0	83.3	15.8	0.9	83.3	27.2	23.5	46.1	34.4	19.5	46.1	25.7	16.2	4.7	55.1	40.2	4.7
5	Chemicals	17.2	25.6	26.2	21.3	52.5	26.2	14.4	18.0	15.6	26.6	57.8	15.6	5.5	11.2	7.0	30.9	62.1	7.3
6	Manufactured Goods	8.9	10.8	9.8	7.5	82.6	9.8	4.4	7.1	7.7	8.6	83.7	7.4	3.7	6.9	4.5	10.2	85.3	4.2
7	Machines, Transport Equip.	23.6	12.1	7.6	7.2	85.3	7.6	12.7	11.8	3.3	9.3	87.4	3.3	11.3	11.1	2.9	9.5	87.6	3.3
8	Misc. Manufactured Articles	17.9	18.8	7.7	0.0	92.3	7.7	14.1	18.4	7.7	0.0	92.3	7.7	11.9	16.5	6.9	0.4	92.7	9.3
9	Goods Not Classed By Kind	.	48.1	32.4	67.6	0.0	32.4	.	48.1	32.4	67.6	0.0	32.4	.	48.1	32.4	67.6	0.0	.
	Total Trade	12.3	8.9	10.9	45.3	43.9	10.9	6.9	7.0	7.3	47.1	45.7	5.3	5.9	5.9	5.2	48.1	46.7	4.7
	Total, Adjusted for the Trade Balance	15.2	10.2	11.0	.	.	11.0	8.5	8.0	7.4	.	.	5.8	7.4	6.8	5.3	.	.	13.4
	Manufactures, 5-8 minus 68	18.5	13.8	9.7	6.4	83.8	9.7	11.3	11.5	6.2	8.2	85.6	6.1	9.0	10.2	4.2	9.2	86.6	4.5
	Manuf., Adjusted for Manuf. Balance	78.0	74.3	43.2	.	.	43.2	47.5	61.9	27.4	.	.	26.7	37.7	54.7	18.6	.	.	17.5

Notes: "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero
2004UN uses only UN reported data for that digit level.
The export column refers to amount of net exports for a sector while import refers to net imports; at the disaggregated level, trade which is not IIT is either net export or net import. At the aggregate level IIT+Export+Import=1.

Appendix Table 11.3

Belarus, 2000-2004
Intra-Industry Trade Index by 1-Digit SITC-Rev.3

		3-Digit Level						4-Digit Level						5-Digit Level					
		2000	2002	2004	Export	Import	2004-UN	2000	2002	2004	Export	Import	2004-UN	2000	2002	2004	Export	Import	2004-UN
0	Food And Live Animals	39.4	44.1	34.5	26.8	38.6	36.1	24.1	21.7	22.0	33.1	44.9	23.6	20.5	15.6	17.3	35.4	47.3	18.1
1	Beverages And Tobacco	53.0	56.0	57.3	0.0	42.7	57.3	42.4	54.1	48.8	4.3	47.0	48.8	39.6	49.5	44.2	6.6	49.3	47.5
2	Crude Materials, Inedible	24.1	42.8	27.0	32.9	40.1	27.5	17.1	34.7	18.8	37.0	44.2	19.1	14.3	32.3	16.1	38.4	45.6	18.4
3	Fuels, Lubricants, Etc.	15.0	10.9	12.2	38.9	48.9	12.2	14.7	10.6	12.2	38.9	48.9	13.6	14.7	10.6	12.1	38.9	49.0	55.6
4	Animal, Veg Oils, Fats	6.3	18.3	25.5	0.0	74.5	26.3	6.3	12.9	15.4	5.0	79.6	12.3	6.2	9.9	9.8	7.8	82.4	3.7
5	Chemicals	32.8	33.1	29.4	33.2	37.4	29.4	26.6	27.9	24.1	35.8	40.1	24.1	19.6	21.0	17.8	39.0	43.2	15.9
6	Manufactured Goods	53.0	57.0	55.4	16.0	28.6	55.5	37.4	37.0	35.0	26.2	38.8	36.7	29.3	31.4	28.6	29.4	42.0	28.8
7	Machines, Transport Equip.	49.8	51.2	45.6	21.8	32.6	45.1	41.8	45.0	40.4	24.4	35.2	39.3	36.4	39.6	35.7	26.8	37.5	32.9
8	Misc. Manufactured Articles	53.2	58.5	54.1	34.7	11.3	55.3	40.7	48.7	46.2	38.6	15.2	46.4	34.1	43.3	40.1	41.7	18.3	40.2
9	Goods Not Classed By Kind	81.7	91.2	87.3	0.0	12.7	87.3	81.7	91.2	87.3	0.0	12.7	87.3	81.7	91.2	87.3	0.0	12.7	.
	Total Trade	38.2	40.7	36.0	27.7	36.3	35.9	30.3	31.8	28.4	31.5	40.1	30.7	25.8	27.6	24.6	33.4	42.0	27.7
	Total, Adjusted for the Trade Balance	41.2	43.4	39.4	.	.	38.8	32.7	33.9	31.1	.	.	38.8	27.9	29.4	26.9	.	.	29.9
	Manufactures, 5-8 minus 68	48.2	50.8	47.4	23.8	28.7	47.4	37.4	39.9	36.8	29.2	34.0	36.8	30.5	34.0	31.0	32.1	36.9	29.3
	Manuf., Adjusted for Manuf. Balance	51.8	52.5	49.9	.	.	49.1	40.2	41.2	38.6	.	.	38.0	32.8	35.1	32.6	.	.	30.7

Notes: "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero
2004UN uses only UN reported data for that digit level.
The export column refers to amount of net exports for a sector while import refers to net imports; at the disaggregated level, trade which is not IIT is either net export or net import. At the aggregate level IIT+Export+Import=1.

Appendix Table 11.4

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Georgia, 2000-2004
Intra-Industry Trade Index by 1-Digit SITC-Rev.3

		3-Digit Level						4-Digit Level						5-Digit Level					
		2000	2002	2004	Export	Import	2004-UN	2000	2002	2004	Export	Import	2004-UN	2000	2002	2004	Export	Import	2004-UN
0	Food And Live Animals	14.4	35.2	37.7	4.6	57.7	37.7	12.5	32.7	33.2	6.9	60.0	33.2	11.0	30.8	30.8	8.0	61.1	35.5
1	Beverages And Tobacco	16.6	9.8	13.8	61.4	24.8	13.8	6.9	9.3	11.0	62.8	26.2	11.0	5.8	7.7	9.3	63.6	27.0	10.0
2	Crude Materials, Inedible	8.0	4.2	6.8	87.7	5.6	6.8	2.1	2.2	3.4	89.4	7.3	3.4	1.7	1.4	2.7	89.7	7.6	1.8
3	Fuels, Lubricants, Etc.	18.0	13.8	7.5	2.9	89.6	7.5	18.0	13.8	7.5	2.9	89.6	5.6	18.0	13.8	7.5	2.9	89.6	0.3
4	Animal, Veg Oils, Fats	1.0	0.7	6.8	0.0	93.2	6.8	1.0	0.7	6.7	0.1	93.2	6.7	1.0	0.7	6.7	0.1	93.2	6.7
5	Chemicals	28.9	13.2	12.2	13.4	74.5	12.2	22.1	10.6	7.8	15.6	76.7	7.8	20.3	9.6	6.9	16.0	77.1	4.5
6	Manufactured Goods	21.3	10.2	12.2	12.4	75.4	12.2	18.3	6.1	11.2	12.9	75.9	11.4	13.6	4.7	9.1	13.9	76.9	9.0
7	Machines, Transport Equip.	31.1	23.0	17.0	11.2	71.8	17.0	22.4	17.4	14.1	12.7	73.2	14.1	18.8	15.4	12.4	13.5	74.1	15.4
8	Misc. Manufactured Articles	16.6	13.1	8.1	0.3	91.7	8.1	14.6	10.4	6.9	0.9	92.2	6.9	13.8	9.2	6.5	1.1	92.4	7.1
9	Goods Not Classed By Kind	0.0	0.2	0.2	96.4	3.5	0.2	0.0	0.2	0.2	96.4	3.5	0.2	0.0	0.2	0.0	96.4	3.5	0.0
	Total Trade	20.5	17.2	16.2	17.9	65.9	16.2	15.7	14.4	13.7	19.1	67.1	14.2	13.8	13.1	12.4	19.8	67.8	12.8
	Total, Adjusted for the Trade Balance	30.4	28.2	31.2	.	.	31.2	23.3	23.7	26.4	.	.	25.4	20.5	21.6	23.8	.	.	20.8
	Manufactures, 5-8 minus 68	26.5	16.7	13.7	10.5	75.8	13.7	20.1	13.0	11.4	11.7	76.9	11.5	17.4	11.4	9.9	12.4	77.7	10.2
	Manuf., Adjusted for Manuf. Balance	56.9	41.0	39.5	.	.	39.5	43.2	32.0	32.9	.	.	32.7	37.4	27.9	28.5	.	.	33.1

Notes: "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero
2004UN uses only UN reported data for that digit level.
The export column refers to amount of net exports for a sector while import refers to net imports; at the disaggregated level, trade which is not IIT is either net export or net import. At the aggregate level IIT+Export+Import=1.

Appendix Table 11.5

Kazakhstan, 2000-2003
Intra-Industry Trade Index by 1-Digit SITC-Rev.3

		3-Digit Level						4-Digit Level						5-Digit Level					
		2000	2001	2003	Export	Import	2003-UN	2000	2001	2003	Export	Import	2003-UN	2000	2001	2003	Export	Import	2003-UN
0	Food And Live Animals	8.9	11.8	15.5	50.8	33.7	15.5	6.5	7.7	9.2	53.9	36.9	9.2	4.3	4.8	6.9	55.1	38.0	14.0
1	Beverages And Tobacco	46.4	58.8	46.4	0.0	53.6	46.4	43.1	42.4	36.1	5.2	58.7	36.1	41.3	42.4	36.1	5.2	58.7	14.6
2	Crude Materials, Inedible	25.0	28.7	13.1	77.0	9.9	13.1	6.2	8.0	4.8	81.2	14.0	4.8	3.8	5.6	3.0	82.1	14.9	7.0
3	Fuels, Lubricants, Etc.	9.6	16.9	18.3	80.4	1.3	18.3	9.2	16.6	17.9	80.6	1.5	13.0	8.7	16.4	17.8	80.6	1.5	3.0
4	Animal, Veg Oils, Fats	4.7	11.9	27.2	0.0	72.8	27.2	1.5	10.6	22.7	2.2	75.1	22.7	1.5	10.6	11.8	7.7	80.5	11.8
5	Chemicals	35.7	39.4	29.2	5.1	65.6	29.2	29.6	29.8	21.2	9.2	69.7	21.2	26.7	17.6	7.3	16.1	76.6	8.0
6	Manufactured Goods	7.4	10.3	8.4	58.3	33.3	8.4	4.6	6.7	5.9	59.6	34.5	5.7	4.1	6.3	5.5	59.8	34.7	5.4
7	Machines, Transport Equip.	15.3	13.6	11.8	0.5	87.6	11.8	12.7	12.2	11.0	0.9	88.0	11.0	12.1	11.6	10.9	1.0	88.1	10.5
8	Misc. Manufactured Articles	23.1	14.0	9.6	0.0	90.4	9.6	22.2	13.9	9.5	0.0	90.5	9.5	21.9	13.7	9.3	0.1	90.6	9.4
9	Goods Not Classed By Kind	6.6	8.6	14.2	84.9	0.9	14.2	6.6	8.6	14.2	84.9	0.9	14.2	6.6	8.6	14.2	84.9	0.9	4.8
	Total Trade	12.9	16.7	15.3	52.9	31.8	15.3	10.1	13.4	13.2	54.0	32.8	11.2	9.2	12.0	11.9	54.6	33.4	7.9
	Total, Adjusted for the Trade Balance	17.8	19.7	19.4	.	.	19.4	13.8	15.8	16.7	.	.	14.1	12.6	14.2	15.1	.	.	11.2
	Manufactures, 5-8 minus 68	16.6	16.6	13.4	17.6	69.0	13.4	13.4	13.5	11.1	18.7	70.1	11.5	12.5	11.1	8.8	19.9	71.3	8.9
	Manuf., Adjusted for Manuf. Balance	28.2	35.6	27.7	.	.	27.7	22.8	29.0	22.9	.	.	29.7	21.3	24.0	18.2	.	.	20.6

Notes: "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero
2004UN uses only UN reported data for that digit level.
The export column refers to amount of net exports for a sector while import refers to net imports; at the disaggregated level, trade which is not IIT is either net export or net import. At the aggregate level IIT+Export+Import=1.

Appendix Table 11.6

Kyrgyzstan, 1999-2003
Intra-Industry Trade Index by 1-Digit SITC-Rev.3

		3-Digit Level						4-Digit Level						5-Digit Level					
		1999	2002	2003	Export	Import	2003-UN	1999	2002	2003	Export	Import	2003-UN	1999	2002	2003	Export	Import	2003-UN
0	Food And Live Animals	31.4	27.6	36.7	21.7	41.6	36.7	24.7	24.3	28.7	25.7	45.7	28.7	24.7	19.1	23.0	28.5	48.5	26.2
1	Beverages And Tobacco	15.9	14.8	16.9	25.8	57.3	16.9	10.3	8.5	8.7	29.9	61.4	8.7	10.3	6.5	8.6	30.0	61.4	19.9
2	Crude Materials, Inedible	10.6	14.6	13.1	65.0	21.8	13.1	3.8	11.8	11.8	65.7	22.5	11.8	3.8	11.0	8.7	67.2	24.0	16.8
3	Fuels, Lubricants, Etc.	5.1	43.6	39.2	7.5	53.2	39.2	5.1	43.6	39.2	7.6	53.2	1.9	5.1	43.6	39.2	7.6	53.2	2.2
4	Animal, Veg Oils, Fats	14.6	10.7	2.3	0.0	97.7	2.3	10.1	0.7	0.4	0.9	98.7	0.4	10.1	0.7	0.3	1.0	98.7	0.3
5	Chemicals	30.2	12.5	6.4	3.6	90.0	6.4	28.8	10.9	5.4	4.1	90.5	5.4	28.8	4.5	2.2	5.7	92.1	2.1
6	Manufactured Goods	23.6	26.1	26.1	20.4	53.5	26.1	20.4	20.0	19.4	23.8	56.9	19.9	20.4	17.2	15.1	25.9	59.0	17.0
7	Machines, Transport Equip.	34.0	35.6	30.9	7.9	61.2	30.9	27.4	25.4	25.6	10.5	63.8	25.6	27.2	22.1	20.5	13.1	66.4	23.0
8	Misc. Manufactured Articles	24.7	39.5	33.4	13.1	53.5	33.4	17.3	22.5	20.0	19.8	60.2	20.0	17.3	18.3	13.6	23.0	63.4	13.1
9	Goods Not Classed By Kind	0.1	0.0	1.0	99.0	0.0	1.0	0.1	0.0	1.0	99.0	0.0	1.0	0.1	0.0	1.0	99.0	0.0	0.0
	Total Trade	18.5	25.2	22.3	33.6	44.0	22.3	14.8	20.9	18.8	35.4	45.8	13.2	14.8	18.7	16.2	36.7	47.1	10.9
	Total, Adjusted for the Trade Balance	21.4	28.5	24.9	.	.	24.9	17.2	23.6	21.0	.	.	13.9	17.1	21.1	18.1	.	.	11.0
	Manufactures, 5-8 minus 68	29.9	28.5	24.3	11.3	64.4	24.3	24.7	20.3	18.7	14.1	67.2	18.8	24.5	16.3	14.1	16.4	69.5	15.0
	Manuf., Adjusted for Manuf. Balance	77.8	60.2	51.7	.	.	51.7	64.1	42.9	39.9	.	.	39.7	63.8	34.6	30.1	.	.	29.4

Notes: "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero
2004UN uses only UN reported data for that digit level.
The export column refers to amount of net exports for a sector while import refers to net imports; at the disaggregated level, trade which is not IIT is either net export or net import. At the aggregate level IIT+Export+Import=1.

Appendix Table 11.7

Moldova, 2000-2004
Intra-Industry Trade Index by 1-Digit SITC-Rev.3

	3-Digit Level						4-Digit Level						5-Digit Level					
	2000	2002	2004	Export	Import	2004-UN	2000	2002	2004	Export	Import	2004-UN	2000	2002	2004	Export	Import	2004-UN
0 Food And Live Animals	30.8	37.5	29.7	39.2	31.2	29.7	17.7	17.2	20.0	44.0	36.0	20.0	15.2	14.1	14.3	46.9	38.9	16.7
1 Beverages And Tobacco	9.3	17.8	14.9	77.8	7.4	14.9	7.6	15.1	10.8	79.8	9.4	10.8	7.5	14.6	10.2	80.1	9.7	8.3
2 Crude Materials, Inedible	32.5	63.9	70.9	16.0	13.0	70.9	23.1	37.4	64.1	19.5	16.5	64.1	22.7	35.9	63.2	19.9	16.9	40.8
3 Fuels, Lubricants, Etc.	0.3	0.1	7.6	0.2	92.2	7.6	0.3	0.1	7.6	0.2	92.2	15.6	0.3	0.1	7.6	0.2	92.2	2.0
4 Animal, Veg Oils, Fats	48.2	29.7	9.2	82.0	8.8	9.2	6.9	28.0	8.3	82.5	9.2	8.3	4.3	25.2	8.0	82.6	9.4	8.0
5 Chemicals	17.6	10.1	9.0	0.0	91.0	9.0	15.2	9.3	8.2	0.4	91.4	8.2	13.7	9.2	7.9	0.6	91.6	8.4
6 Manufactured Goods	24.1	24.5	23.5	2.6	73.8	23.5	17.3	20.5	19.0	4.9	76.1	18.4	15.3	19.3	16.9	5.9	77.1	16.9
7 Machines, Transport Equip.	32.5	28.7	24.6	3.8	71.6	24.6	27.8	21.5	18.2	7.0	74.8	18.2	25.1	18.3	16.7	7.8	75.5	16.1
8 Misc. Manufactured Articles	15.9	17.1	23.2	47.3	29.5	23.2	12.3	12.5	18.5	49.7	31.9	18.5	11.2	11.6	17.1	50.3	32.5	17.4
9 Goods Not Classed By Kind	25.2	0.0	0.0	0.0	100.0	0.0	25.2	0.0	0.0	0.0	100.0	0.0	25.2	0.0	0.0	0.0	100.0	0.0
Total Trade	17.5	22.7	23.5	24.0	52.5	23.5	12.9	15.6	19.0	26.2	54.8	20.3	11.7	14.2	17.4	27.0	55.6	15.5
Total, Adjusted for the Trade Balance	23.1	29.6	32.9	.	.	32.9	17.1	20.3	26.5	.	.	26.3	15.5	18.5	24.3	.	.	19.5
Manufactures, 5-8 minus 68	22.9	21.3	21.5	13.9	64.6	21.5	18.3	16.9	17.1	16.1	66.8	16.9	16.5	15.4	15.6	16.8	67.5	15.7
Manuf., Adjusted for Manuf. Balance	39.0	42.8	43.6	.	.	43.6	31.1	34.0	34.7	.	.	34.1	28.1	31.0	31.7	.	.	39.1

Notes: "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero
2004UN uses only UN reported data for that digit level.
The export column refers to amount of net exports for a sector while import refers to net imports; at the disaggregated level, trade which is not IIT is either net export or net import. At the aggregate level IIT+Export+Import=1.

Appendix Table 11.8

Russia, 2000-2004
Intra-Industry Trade Index by 1-Digit SITC-Rev.3

	3-Digit Level						4-Digit Level						5-Digit Level					
	2000	2002	2004	Export	Import	2004-UN	2000	2002	2004	Export	Import	2004-UN	2000	2002	2004	Export	Import	2004-UN
0 Food And Live Animals	23.0	18.8	27.9	3.2	68.9	27.9	20.9	16.6	25.0	4.6	70.4	25.0	16.0	12.2	20.0	7.1	72.9	16.4
1 Beverages And Tobacco	13.3	22.7	24.4	0.0	75.6	24.4	13.3	22.7	22.8	0.8	76.4	22.8	10.9	20.1	22.8	0.8	76.4	19.8
2 Crude Materials, Inedible	18.0	15.5	18.0	64.1	17.9	18.0	15.0	12.4	14.6	65.8	19.6	14.6	12.2	10.3	12.7	66.8	20.6	5.8
3 Fuels, Lubricants, Etc.	5.5	3.5	3.9	96.1	0.0	3.9	5.3	3.3	3.8	96.2	0.1	4.2	4.9	2.9	3.4	96.4	0.2	10.1
4 Animal, Veg Oils, Fats	33.9	14.0	29.0	0.0	71.0	29.0	33.9	14.0	27.8	0.6	71.6	27.8	11.7	8.7	7.0	11.0	82.0	7.0
5 Chemicals	30.9	27.8	27.6	33.7	38.6	27.6	27.0	23.4	22.9	36.1	41.0	22.9	18.5	17.4	17.4	38.8	43.8	16.9
6 Manufactured Goods	29.2	34.3	33.6	57.9	8.5	33.6	21.8	23.0	24.9	62.2	12.9	25.8	18.8	19.1	21.2	64.1	14.8	21.6
7 Machines, Transport Equip.	55.3	45.5	37.5	6.1	56.4	37.5	49.7	38.5	34.1	7.8	58.1	34.1	45.1	34.5	31.4	9.1	59.5	32.6
8 Misc. Manufactured Articles	57.0	53.3	43.9	3.4	52.7	43.9	43.5	38.6	38.4	6.2	55.4	38.4	37.8	35.7	33.6	8.6	57.8	32.7
9 Goods Not Classed By Kind	88.1	5.3	33.5	66.5	0.0	33.5	88.1	5.3	33.5	66.5	0.0	33.5	88.1	5.3	33.5	66.5	0.0	.
Total Trade	34.4	19.8	22.2	59.6	18.2	22.2	31.7	15.8	19.6	60.9	19.5	21.1	29.5	13.5	17.6	61.9	20.5	22.7
Total, Adjusted for the Trade Balance	56.1	33.4	37.9	.	.	37.9	51.8	26.8	33.4	.	.	32.8	48.3	22.8	30.0	.	.	23.5
Manufactures, 5-8 minus 68	45.2	42.9	38.0	23.7	38.3	38.0	37.0	32.8	31.4	27.0	41.6	32.2	31.4	28.2	27.3	29.0	43.7	28.0
Manuf., Adjusted for Manuf. Balance	52.0	49.8	44.5	.	.	44.5	42.4	38.1	36.8	.	.	40.7	36.1	32.8	31.9	.	.	33.4

Notes: "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero
2004UN uses only UN reported data for that digit level.
The export column refers to amount of net exports for a sector while import refers to net imports; at the disaggregated level, trade which is not IIT is either net export or net import. At the aggregate level IIT+Export+Import=1.

Appendix Table 11.9

Tajikistan, 2000
Intra-Industry Trade Index by 1-Digit SITC-Rev.3

		3-Digit Level				4-Digit Level				5-Digit Level			
		2000	Export	Import	2000-UN	2000	Export	Import	2000-UN	2000	Export	Import	2000-UN
0	Food And Live Animals	0.9	26.9	72.2	0.9	0.7	27.0	72.3	0.7	0.6	27.1	72.4	0.7
1	Beverages And Tobacco	6.3	88.3	5.4	6.3	6.1	88.4	5.5	1.0	6.1	88.4	5.5	0.0
2	Crude Materials, Inedible	0.8	94.2	4.9	0.8	0.7	94.3	5.0	0.7	0.6	94.4	5.1	0.7
3	Fuels, Lubricants, Etc.	55.2	0.1	44.8	55.2	55.2	0.1	44.8	73.4	55.2	0.1	44.8	.
4	Animal, Veg Oils, Fats	0.2	0.0	99.8	0.2	0.0	0.1	99.9	0.0	0.0	0.1	99.9	0.0
5	Chemicals	2.5	2.6	94.9	2.5	2.3	2.8	95.0	2.3	2.3	2.8	95.0	33.0
6	Manufactured Goods	2.3	92.5	5.2	2.3	1.7	92.8	5.5	1.7	1.5	92.9	5.6	0.2
7	Machines, Transport Equip.	17.6	37.9	44.4	17.6	15.1	39.2	45.7	15.1	15.1	39.2	45.7	38.7
8	Misc. Manufactured Articles	11.7	35.9	52.4	11.7	8.2	37.6	54.2	8.2	8.0	37.7	54.3	4.2
9	Goods Not Classed By Kind	3.6	92.6	3.8	3.6	3.6	92.6	3.8	3.6	3.6	92.6	3.8	0.0
	Total Trade	16.8	43.4	39.8	16.8	16.3	43.7	40.1	17.4	16.2	43.7	40.1	2.0
	Total, Adjusted for the Trade Balance	17.4	.	.	17.4	16.9	.	.	19.4	16.8	.	.	19.0
	Manufactures, 5-8 minus 68	9.0	16.7	74.3	9.0	7.4	17.5	75.1	7.4	7.2	17.6	75.2	20.5
	Manuf., Adjusted for Manuf. Balance	21.2	.	.	21.2	17.4	.	.	17.4	17.1	.	.	20.5

Notes: "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero
2004UN uses only UN reported data for that digit level.
The export column refers to amount of net exports for a sector while import refers to net imports; at the disaggregated level, trade which is not IIT is either net export or net import. At the aggregate level IIT+Export+Import=1.

Appendix Table 11.10

Turkmenistan, 1999-2000
Intra-Industry Trade Index by 1-Digit SITC-Rev.3

		3-Digit Level					4-Digit Level					5-Digit Level				
		1999	2000	Export	Import	2000-UN	1999	2000	Export	Import	2000-UN	1999	2000	Export	Import	2000-UN
0	Food And Live Animals	3.1	3.5	0.6	95.9	3.5	0.9	2.0	1.4	96.7	2.0	0.7	1.6	1.6	96.9	1.5
1	Beverages And Tobacco	0.3	1.5	0.0	98.5	1.5	0.3	1.5	0.0	98.5	1.5	0.3	1.5	0.0	98.5	1.9
2	Crude Materials, Inedible	3.7	3.6	93.0	3.5	3.6	1.1	0.6	94.5	4.9	0.6	0.6	0.5	94.5	5.0	2.0
3	Fuels, Lubricants, Etc.	8.8	2.1	97.9	0.0	2.1	8.8	2.0	97.9	0.0	0.1	6.6	2.0	98.0	0.0	1.2
4	Animal, Veg Oils, Fats	3.9	78.6	0.0	21.4	78.6	3.9	5.5	36.5	57.9	5.5	1.6	1.4	38.6	60.0	0.0
5	Chemicals	9.5	11.6	0.8	87.6	11.6	8.2	5.6	3.8	90.6	5.6	4.1	3.4	4.9	91.7	3.8
6	Manufactured Goods	6.0	5.1	19.3	75.6	5.1	2.3	2.3	20.7	77.0	2.4	1.4	1.5	21.1	77.4	1.6
7	Machines, Transport Equip.	7.5	1.0	1.5	97.6	1.0	7.2	0.9	1.5	97.6	0.9	7.1	0.5	1.7	97.8	0.6
8	Misc. Manufactured Articles	8.1	11.7	20.6	67.8	11.7	3.9	3.6	24.6	71.8	3.6	2.8	2.7	25.0	72.3	2.2
9	Goods Not Classed By Kind	62.4	53.1	0.0	46.9	53.1	62.4	53.1	0.0	46.9	53.1	62.4	53.1	0.0	46.9	.
	Total Trade	9.8	4.9	55.9	39.2	4.9	8.5	3.7	56.6	39.8	3.1	7.3	3.3	56.7	39.9	1.4
	Total, Adjusted for the Trade Balance	11.0	5.9	.	.	5.9	9.6	4.4	.	.	3.4	8.2	4.0	.	.	6.5
	Manufactures, 5-8 minus 68	7.1	4.2	8.7	87.1	4.2	5.1	2.0	9.8	88.2	2.0	4.3	1.2	10.2	88.6	1.2
	Manuf., Adjusted for Manuf. Balance	29.2	19.6	.	.	19.6	21.1	9.1	.	.	9.0	17.7	5.6	.	.	6.2

Notes: "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero
2004UN uses only UN reported data for that digit level.
The export column refers to amount of net exports for a sector while import refers to net imports; at the disaggregated level, trade which is not IIT is either net export or net import. At the aggregate level IIT+Export+Import=1.

Appendix Table 11.11

Ukraine, 2000-2004
Intra-Industry Trade Index by 1-Digit SITC-Rev.3

		3-Digit Level						4-Digit Level						5-Digit Level					
		2000	2002	2004	Export	Import	2004-UN	2000	2002	2004	Export	Import	2004-UN	2000	2002	2004	Export	Import	2004-UN
0	Food And Live Animals	29.7	27.0	36.5	45.5	18.0	36.5	19.9	13.5	26.0	50.7	23.3	26.0	15.8	8.5	20.5	53.5	26.0	19.2
1	Beverages And Tobacco	48.4	49.4	40.8	26.7	32.5	40.8	35.3	46.8	33.7	30.2	36.0	33.7	32.3	32.5	27.8	33.2	39.0	32.6
2	Crude Materials, Inedible	44.2	42.0	35.1	49.5	15.4	35.1	24.6	19.6	19.1	57.5	23.3	19.1	19.1	13.1	13.3	60.4	26.2	7.1
3	Fuels, Lubricants, Etc.	19.0	18.2	24.1	13.8	62.1	24.1	18.2	17.3	21.3	15.2	63.5	16.2	17.8	17.1	20.4	15.7	63.9	13.4
4	Animal, Veg Oils, Fats	2.8	2.3	3.5	80.3	16.1	3.5	1.0	1.4	3.1	80.6	16.4	3.1	0.4	1.1	3.0	80.6	16.4	3.0
5	Chemicals	36.4	38.7	43.0	26.7	30.3	43.0	24.5	27.7	27.9	34.3	37.8	27.9	17.0	19.4	21.0	37.7	41.3	20.6
6	Manufactured Goods	25.0	27.3	28.4	63.5	8.1	28.4	18.6	20.2	20.2	67.6	12.2	25.6	14.6	15.1	16.0	69.7	14.3	22.1
7	Machines, Transport Equip.	59.3	52.5	47.3	17.2	35.5	47.3	49.0	39.3	38.2	21.7	40.0	38.2	41.9	33.3	31.0	25.4	43.7	31.2
8	Misc. Manufactured Articles	41.6	49.9	49.4	34.2	16.3	49.4	37.3	39.0	39.4	39.2	21.3	39.4	31.4	32.7	31.2	43.4	25.5	32.8
9	Goods Not Classed By Kind	95.6	95.5	63.0	0.0	37.0	63.0	95.6	95.5	63.0	0.0	37.0	63.0	95.6	95.5	63.0	0.0	37.0	.
	Total Trade	34.2	33.2	35.0	35.5	29.5	35.0	26.9	24.8	26.7	39.6	33.7	27.8	22.9	20.3	22.1	41.9	36.0	23.9
	Total, Adjusted for the Trade Balance	34.9	34.1	37.2	.	.	37.2	27.5	25.5	28.4	.	.	28.7	23.4	20.9	23.5	.	.	26.3
	Manufactures, 5-8 minus 68	37.1	38.0	37.7	41.4	20.9	37.7	29.4	28.8	28.6	45.9	25.5	31.8	23.9	22.8	22.7	48.9	28.4	26.1
	Manuf., Adjusted for Manuf. Balance	50.2	46.5	47.3	.	.	47.3	39.8	35.2	35.9	.	.	35.5	32.3	27.9	28.6	.	.	28.9

Notes: "0.0" denotes less than $50 thousand or 0.05 percent and "." denotes zero
2004UN uses only UN reported data for that digit level.
The export column refers to amount of net exports for a sector while import refers to net imports; at the disaggregated level, trade which is not IIT is either net export or net import. At the aggregate level IIT+Export+Import=1.

Appendix Table 12.1

Armenia, 2002-2004
The Marginal Intra-Industry Trade Index at Several Levels of Aggregation
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		SITC 2-Digit Level	SITC 3-Digit Level	SITC 4-Digit Level
0	Food And Live Animals	24.6	15.8	12.2
1	Beverages And Tobacco	52.0	50.6	46.8
2	Crude Materials, Inedible	5.6	4.9	5.1
3	Fuels, Lubricants, Etc.	3.3	2.6	2.6
4	Animal, Veg Oils, Fats	2.7	2.7	1.7
5	Chemicals	1.9	5.1	4.4
6	Manufactured Goods	43.2	3.0	29.4
7	Machines, Transport Equip.	19.9	17.4	11.7
8	Misc. Manufactured Articles	39.1	26.4	21.3
9	Goods Not Classed By Kind	36.1	36.1	36.1
	Total Manufactures(5-8minus 68)	39.8	28.0	23.5
	All Commodities	31.0	22.8	20.5

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 12.2

Azerbaijan, 2002-2004
The Marginal Intra-Industry Trade Index at Several Levels of Aggregation
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		SITC 2-Digit Level	SITC 3-Digit Level	SITC 4-Digit Level
0	Food And Live Animals	15.7	12.4	10.0
1	Beverages And Tobacco	24.7	33.7	31.8
2	Crude Materials, Inedible	63.8	62.0	2.1
3	Fuels, Lubricants, Etc.	14.5	14.3	9.9
4	Animal, Veg Oils, Fats	61.8	62.8	35.0
5	Chemicals	41.8	29.2	13.1
6	Manufactured Goods	15.5	8.4	8.7
7	Machines, Transport Equip.	3.2	2.4	0.8
8	Misc. Manufactured Articles	5.0	5.1	7.0
9	Goods Not Classed By Kind	56.2	56.2	56.2
	Total Manufactures(5-8minus 68)	9.7	6.3	4.6
	All Commodities	14.5	12.3	7.8

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 12.3

Belarus, 2002-2004
The Marginal Intra-Industry Trade Index at Several Levels of Aggregation
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		SITC 2-Digit Level	SITC 3-Digit Level	SITC 4-Digit Level
0	Food And Live Animals	30.9	16.6	14.7
1	Beverages And Tobacco	62.6	62.6	48.6
2	Crude Materials, Inedible	27.9	31.1	25.2
3	Fuels, Lubricants, Etc.	86.4	11.9	11.8
4	Animal, Veg Oils, Fats	46.5	46.5	17.0
5	Chemicals	34.6	22.2	16.1
6	Manufactured Goods	71.3	47.4	29.1
7	Machines, Transport Equip.	64.0	35.3	30.3
8	Misc. Manufactured Articles	37.5	39.5	33.8
9	Goods Not Classed By Kind	81.3	81.3	81.3
	Total Manufactures(5-8minus 68)	60.4	38.5	28.5
	All Commodities	65.1	28.1	22.4

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 12.4

Georgia, 2002-2004
The Marginal Intra-Industry Trade Index at Several Levels of Aggregation
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		SITC 2-Digit Level	SITC 3-Digit Level	SITC 4-Digit Level
0	Food And Live Animals	41.6	35.3	24.6
1	Beverages And Tobacco	22.7	24.1	18.2
2	Crude Materials, Inedible	9.8	7.9	4.2
3	Fuels, Lubricants, Etc.	12.3	8.3	8.1
4	Animal, Veg Oils, Fats	9.5	8.3	8.1
5	Chemicals	10.9	13.4	8.1
6	Manufactured Goods	35.8	13.7	13.4
7	Machines, Transport Equip.	10.5	11.8	14.8
8	Misc. Manufactured Articles	4.9	5.8	6.3
9	Goods Not Classed By Kind	0.5	0.5	0.5
	Total Manufactures(5-8minus 68)	17.4	11.8	12.5
	All Commodities	20.4	15.5	13.5

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 12.5

Kazakhstan, 2001-2004
The Marginal Intra-Industry Trade Index at Several Levels of Aggregation
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		SITC 2-Digit Level	SITC 3-Digit Level	SITC 4-Digit Level
0	Food And Live Animals	43.2	22.4	11.6
1	Beverages And Tobacco	12.2	10.5	43.9
2	Crude Materials, Inedible	12.7	6.7	5.9
3	Fuels, Lubricants, Etc.	17.8	17.0	20.0
4	Animal, Veg Oils, Fats	0.0	2.7	2.9
5	Chemicals	5.0	23.4	17.8
6	Manufactured Goods	38.7	7.6	7.8
7	Machines, Transport Equip.	29.1	11.0	13.7
8	Misc. Manufactured Articles	9.2	11.2	10.9
9	Goods Not Classed By Kind	2.8	2.8	2.8
	Total Manufactures(5-8minus 68)	30.4	12.5	12.3
	All Commodities	22.8	14.2	14.8

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 12.6

Kyrgyzstan, 2002-2004
The Marginal Intra-Industry Trade Index at Several Levels of Aggregation
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		SITC 2-Digit Level	SITC 3-Digit Level	SITC 4-Digit Level
0	Food And Live Animals	49.8	30.3	32.7
1	Beverages And Tobacco	28.7	9.8	19.1
2	Crude Materials, Inedible	9.3	10.5	14.0
3	Fuels, Lubricants, Etc.	28.8	28.8	28.5
4	Animal, Veg Oils, Fats	0.9	0.9	0.9
5	Chemicals	37.3	23.0	21.0
6	Manufactured Goods	30.0	25.3	17.4
7	Machines, Transport Equip.	14.1	10.7	10.4
8	Misc. Manufactured Articles	41.4	30.0	15.6
9	Goods Not Classed By Kind	0.0	0.0	0.0
	Total Manufactures(5-8minus 68)	27.4	19.9	15.6
	All Commodities	24.4	19.0	17.1

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 12.7

Republic of Moldova, 2002-2004
The Marginal Intra-Industry Trade Index at Several Levels of Aggregation
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		SITC 2-Digit Level	SITC 3-Digit Level	SITC 4-Digit Level
0	Food And Live Animals	33.5	27.7	12.3
1	Beverages And Tobacco	9.6	6.4	3.4
2	Crude Materials, Inedible	76.1	72.5	69.9
3	Fuels, Lubricants, Etc.	19.9	18.2	18.2
4	Animal, Veg Oils, Fats	0.0	0.0	6.6
5	Chemicals	6.1	6.5	6.8
6	Manufactured Goods	29.9	22.9	16.2
7	Machines, Transport Equip.	22.5	19.1	13.4
8	Misc. Manufactured Articles	31.4	27.2	21.6
9	Goods Not Classed By Kind	0.0	0.0	0.0
	Total Manufactures(5-8minus 68)	25.3	20.8	15.7
	All Commodities	29.9	26.0	20.5

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 12.8

Russia, 2002-2004
The Marginal Intra-Industry Trade Index at Several Levels of Aggregation
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		SITC 2-Digit Level	SITC 3-Digit Level	SITC 4-Digit Level
0	Food And Live Animals	23.3	24.1	17.9
1	Beverages And Tobacco	11.3	11.1	14.0
2	Crude Materials, Inedible	36.2	20.6	15.8
3	Fuels, Lubricants, Etc.	2.1	2.1	2.0
4	Animal, Veg Oils, Fats	0.6	0.2	5.9
5	Chemicals	20.8	22.8	18.2
6	Manufactured Goods	30.7	29.1	24.0
7	Machines, Transport Equip.	27.7	27.5	23.3
8	Misc. Manufactured Articles	39.9	22.9	21.7
9	Goods Not Classed By Kind	43.7	43.7	43.7
	Total Manufactures(5-8minus 68)	30.8	29.3	24.4
	All Commodities	22.9	21.7	19.8

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 12.9

Uraine, 2002-2004
The Marginal Intra-Industry Trade Index at Several Levels of Aggregation
by 1-Digit SITC-Revision 3 Based Groups

SITC-Revision 3		SITC 2-Digit Level	SITC 3-Digit Level	SITC 4-Digit Level
0	Food And Live Animals	34.2	21.8	16.1
1	Beverages And Tobacco	27.7	19.3	15.4
2	Crude Materials, Inedible	46.6	23.8	15.9
3	Fuels, Lubricants, Etc.	61.5	26.8	20.9
4	Animal, Veg Oils, Fats	29.3	0.9	1.4
5	Chemicals	47.6	37.9	22.2
6	Manufactured Goods	23.3	22.0	15.3
7	Machines, Transport Equip.	44.4	39.2	29.3
8	Misc. Manufactured Articles	52.4	45.3	35.1
9	Goods Not Classed By Kind	43.4	43.4	43.4
	Total Manufactures(5-8minus 68)	36.6	32.0	22.5
	All Commodities	41.1	29.7	21.6

Source: Compiled from official statistics of the United Nations Comtrade Database.

Appendix Table 13.A

Similarity (Using the Finger-Kreinin Index) in Export and Import Structures for the CIS and China Based upon the Four-Digit SITC, 2004 (a)

	ARM	AZE	BEL	GEO	KAZ	KYR	MOL	RUS	TAJ	TUR	UKR	CHI
Armenia	----	37.6	35.1	55.0	28.7	47.2	53.3	38.7	20.8	33.9	37.2	20.7
Azerbaijan	2.9	----	39.1	53.1	36.0	36.9	41.2	39.3	13.2	43.0	40.0	23.9
Belarus	6.6	25.1	----	36.9	36.6	36.8	45.1	45.7	10.9	34.6	62.8	41.6
Georgia	21.4	6.0	13.4	----	37.5	53.3	57.5	47.6	22.4	44.2	40.8	22.9
Kazakhstan	8.4	61.6	7.0	8.2	----	33.4	37.7	37.7	23.5	37.8	36.6	27.1
Kyrgyzstan	15.3	12.4	18.3	15.5	7.0	----	54.0	39.7	17.9	37.4	38.4	23.1
Republic of Moldova	10.8	4.2	13.2	20.2	2.4	10.6	----	46.3	20.2	38.4	46.3	28.6
Russian Federation	6.8	45.8	24.7	11.0	37.6	14.0	6.0	----	9.8	45.1	52.9	36.1
Tajikistan	8.9	3.7	1.6	6.8	3.6	15.0	5.0	3.8	----	12.3	10.2	7.5
Turkmenistan	2.0	31.3	24.7	4.2	13.7	16.2	3.1	29.6	11.3	----	34.5	24.4
Ukraine	10.7	12.0	30.0	18.3	8.7	14.7	17.2	29.3	3.0	9.6	----	39.9
China	9.6	4.2	21.2	7.6	5.6	11.3	20.2	11.8	3.2	5.6	20.6	----

Note: Those values in the lower left of the table are the Finger-Kreinin indexes comparing the export structures of the two countries; those values in the upper right half of the table are the Finger-Kreinin indexes comparing the import structures of the two countries.
The Finger-Kreinin index varies between 0 (no similarity) to 100 (perfect similarity) based upon the distribution of trade by sector.
(a) Because of data availability, the data for Tajikistan and Turkmenistan are from 2000.

Appendix Table 13.B

Similarity in a Country's Export Structure with Another Country's Import Structure Using the Finger-Kreinin Index, Based upon the Four-Digit SITC, 2004 (a)

	ARM	AZE	BEL	GEO	KAZ	KYR	MOL	RUS	TAJ	TUR	UKR	CHI
Armenia	31.9	9.7	9.6	10.2	7.4	7.7	11.4	10.1	5.2	7.5	8.0	10.0
Azerbaijan	13.5	7.3	26.1	14.8	11.7	24.1	15.9	8.2	9.4	5.9	21.4	11.9
Belarus	32.8	23.3	28.9	35.0	27.0	46.2	39.2	28.1	15.3	30.6	26.8	21.8
Georgia	16.6	17.5	14.4	18.1	13.1	17.2	13.8	14.3	6.7	14.5	13.1	11.1
Kazakhstan	8.1	5.5	25.9	7.4	15.4	5.7	6.4	5.9	12.6	4.5	21.1	11.8
Kyrgyzstan	22.5	13.3	11.9	20.1	12.5	21.7	22.3	11.6	14.5	10.7	10.0	8.9
Republic of Moldova	14.1	12.5	13.4	15.3	9.9	12.6	20.3	17.5	5.5	11.8	10.7	9.6
Russian Federation	24.3	21.6	44.4	24.7	18.0	27.2	27.6	22.6	13.6	17.3	42.1	23.8
Tajikistan	5.8	4.3	2.8	4.6	4.1	2.2	4.5	4.2	15.8	1.8	1.9	2.7
Turkmenistan	16.6	11.5	19.7	16.5	9.7	25.8	19.5	5.2	9.5	3.6	27.0	10.5
Ukraine	27.0	30.9	31.8	31.2	31.0	28.5	29.1	31.9	15.9	27.8	26.8	24.0
China	21.5	23.7	26.7	24.8	22.6	22.1	27.5	32.8	7.5	25.3	26.0	37.1

Note: The value in each cell represents the Finger-Kreinin index comparing the export structure of the country on that row to the import structure of the country in the column; the diagonal represents the similarity of each country's export and import structures. The Finger-Kreinin index varies between 0 (no similarity) to 100 (perfect similarity) based upon the distribution of trade by sector.
(a) Because of data availability, the data for Tajikistan and Turkmenistan are from 2000.

Appendix Table 13.C

Similarity (Using the Finger-Kreinin Index) in Manufactures Export and Import Structures for the CIS and China Based upon the Four-Digit SITC, 2004 (a)

	ARM	AZE	BEL	GEO	KAZ	KYR	MOL	RUS	TAJ	TUR	UKR	CHI
Armenia	----	59.0	65.8	71.2	53.6	70.0	71.3	67.7	52.9	57.8	71.2	52.2
Azerbaijan	66.5	----	62.4	69.0	54.3	59.9	59.4	62.3	44.8	60.3	63.8	47.3
Belarus	45.0	67.9	----	66.3	60.2	70.0	72.4	73.1	53.9	60.7	79.4	63.6
Georgia	60.8	78.4	58.0	----	57.7	70.9	71.5	74.5	51.9	65.1	72.4	52.1
Kazakhstan	63.4	88.3	64.6	76.7	----	58.3	58.7	58.7	49.3	54.1	61.4	44.5
Kyrgyzstan	61.0	83.5	64.1	72.2	80.7	----	73.3	70.5	55.1	62.2	72.6	54.4
Republic of Moldova	56.4	78.9	62.0	67.9	75.4	74.1	----	72.0	52.0	61.6	76.7	56.3
Russian Federation	62.8	87.3	68.5	76.8	84.5	79.6	76.2	----	47.8	59.3	80.2	58.3
Tajikistan	64.6	89.3	64.5	78.8	86.6	81.8	76.9	84.0	----	44.2	55.4	43.3
Turkmenistan	67.6	92.4	67.4	79.1	89.2	84.9	80.4	86.6	91.5	----	61.2	44.4
Ukraine	42.1	63.4	53.3	57.5	61.6	57.2	56.4	70.1	59.6	62.4	----	64.2
China	33.9	53.1	44.0	42.9	51.0	51.9	55.6	53.3	51.0	56.1	37.1	----

Note: Those values in the lower left of the table are the Finger-Kreinin indexes comparing the export structures of the two countries; those values in the upper right half of the table are the Finger-Kreinin indexes comparing the import structures of the two countries. The Finger-Kreinin index varies between 0 (no similarity) to 100 (perfect similarity) based upon the distribution of trade by sector.
(a) Because of data availability, the data for Tajikistan and Turkmenistan are from 2000.

Appendix Table 13.D

Similarity in a Country's Manufactures Export Structure with Another Country's Manufactures Import Structure Using the Finger-Kreinin Index, Based upon the Four-Digit SITC, 2004 (a)

	ARM	AZE	BEL	GEO	KAZ	KYR	MOL	RUS	TAJ	TUR	UKR	CHI
Armenia	65.6	39.6	48.5	45.8	37.1	47.8	45.8	43.3	47.0	36.1	50.3	38.9
Azerbaijan	69.4	61.1	70.0	67.5	59.2	69.9	67.3	63.9	70.7	58.1	71.9	60.9
Belarus	59.7	50.3	63.7	58.6	49.9	62.4	63.2	57.8	50.7	54.0	64.1	48.9
Georgia	61.2	54.5	61.0	60.4	51.0	63.2	58.7	56.4	60.8	50.9	63.2	50.4
Kazakhstan	66.1	57.4	66.7	64.2	58.3	66.7	63.8	60.5	70.2	54.8	68.5	57.1
Kyrgyzstan	64.8	57.1	66.1	63.9	54.9	68.4	64.9	60.7	65.2	54.1	67.4	55.3
Republic of Moldova	62.7	54.0	62.9	61.5	51.0	63.5	62.9	59.2	59.3	51.3	64.9	51.8
Russian Federation	69.4	62.5	73.6	67.4	58.7	70.7	68.0	65.3	68.6	58.4	74.0	63.4
Tajikistan	66.7	58.9	66.9	65.3	57.6	67.1	63.9	61.0	70.3	54.9	68.5	57.2
Turkmenistan	69.6	60.5	69.8	67.3	58.6	69.9	67.7	63.6	71.7	57.4	71.5	60.9
Ukraine	51.3	50.1	58.7	51.9	47.9	53.1	51.3	52.7	47.4	46.5	56.4	45.3
China	46.3	40.1	49.6	46.9	36.4	47.0	49.0	49.0	36.8	39.3	50.5	51.1

Note: The value in each cell represents the Finger-Kreinin index comparing the export structure of the country on that row to the import structure of the country in the column; the diagonal represents the similarity of each country's export and import structures. The Finger-Kreinin index varies between 0 (no similarity) to 100 (perfect similarity) based upon the distribution of trade by sector.
(a) Because of data availability, the data for Tajikistan and Turkmenistan are from 2000.