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Johannes F. Linn and David Tiomkin

Economic Integration of Eurasia: Opportunities and Challenges of Global Significance

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Contents

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Abstract

With the collapse of the Soviet Empire in 1991, a new frontier in the process of globalization of the world economy opened up: the economic integration of the Eurasian "super-continent". This paper begins to explore the process and prospects of economic integration of the huge land-mass that stretches from the Atlantic to the Pacific Oceans and from the Arctic Sea to the Indian Ocean. Since the Eurasian economic integration process is of global significance, there are also geo-political aspects and implications to be considered. This paper touches on some of these at the end, but focuses principally on exploring the economic dimensions and significance of the integration process of Eurasia. It compiles evidence on Eurasian integration in the areas of energy and non-energy trade and transport, illicit drug trade, investment and capital flows, migration, and communication and knowledge. It concludes with a consideration of the institutional and political dimensions that affect regional cooperation for Eurasia and with some broad policy recommendations. The paper represents only a first step in what is necessarily a major research undertaking. But the authors hope that it will provoke thought, debate and follow-up research.

* The authors are respectively Visiting Fellow at the Brookings Institution and MBA and MPA/ID candidate at Harvard University. They gratefully acknowledge the comments of participants in a seminar at the World Bank and especially of Peter Thomson and Jakob von Weiszaecker where some early research findings were presented.

With the collapse of the Soviet Empire in 1991, a new frontier in the process of globalization of the world economy opened up: the economic integration of the Eurasian "super-continent". This paper begins to explore the process and prospects of economic integration of the huge land-mass that stretches from the Atlantic to the Pacific Oceans and from the Arctic Sea to the Indian Ocean[1]. Since the Eurasian economic integration process is of global significance, there are also geo-political aspects and implications that need to be considered. This paper touches on some of these at the end, but focuses principally on exploring the economic dimensions and significance of the integration process of Eurasia. It represents only a first step in what is necessarily a major research undertaking. But it hopes to provoke thought, debate and follow-up research.

The Eurasian continental space was actually integrated for centuries, if not millennia, before the arrival of modern times. Anthropologists speculate that much of modern humanity originated in and spread from the Mongolian steppes millions of years ago. These very early sweeps were followed from the East more recently by waves of conquerors, among them coming from the East Genghis Khan and Attila the Hun, and from the West Alexander the Great and later out of the Arab Peninsula various Islamic leaders[2]. The Great Silk Road (represented in a stylized manner in Figure 1[3]) in many ways serves as the epitome of Eurasian economic and cultural connectedness, as it spread East-West from the Chinese Sea through Central Asia to the Mediterranean Sea and on to Western Europe, with North-South branches veering off along the way, connecting also the Indian Subcontinent and the northern reaches of what is Russia today[4]. Commerce, culture and religion spread along this route, as did conflict and disease, including the Black Death of the plague in the mid-14th Century[5].

[Figure 1]

Many factors contributed to the eventual disintegration of the Eurasian economic space and in particular the decline in the overland communications east-west and north-south: the decline of the great empires in and around Central Asia, a rise in instability in key regions along the transit routes (especially the Caucasus and Central Asia), and the emergence of a weak and fractious China; the rise of the Russian empire and the expansion of Western European colonial powers in East and South East Asia creating borders across the Eurasian continental space; the introduction of the steam ship and the opening up of the Suez Canal, which made the sea routes more attractive and economical; and finally the rise of Communism and the erection of the Iron and Bamboo Curtains, which in effect sealed off much of the Central and Eastern parts of the Eurasia from the rest of the continental space and from the rest of the world.

Indeed, post Second World War it was common to characterize the world as falling into three parts (see Figure 2): the Western industrial countries; the Eastern Bloc, consisting of the Soviet Union, its satellite states and of China; and the South, or Third World countries which gradually emerged as part of the post-war decolonization process. Beginning with the 1950s, the West's economies rapidly integrated broadly on

[1] The geographic concept of "Eurasia" is here defined to include all of the traditional geographic areas of Europe and Asia, excluding the Arab peninsula, but including Turkey, Iran and Afghanistan, with the latter two referred to as "Asia Minor" in considering regional sub-groupings. This geographic boundary is of course arbitrary, but for economic, cultural and political reasons it is for the purposes of this paper preferable to consider the Arab Peninsula as part of the geographic and economic region of Middle East and North Africa.

[2] The empire of Genghis Khan "stretched from the snowy tundra of Siberia to the hot plains of India, from the rice paddies of Vietnam to the wheat fields of Hungary, and from Korea to the Balkans.... [He] opened roads of commerce in a free-trade zone that stretched across the continents... He took the disjoined and languorous trading towns along the Silk Route and organized them into history's largest free-trade zone." (Weatherford, 2004, pp. xviii-xix)

[3] All figures and tables referenced in the text can be found at the end of the paper.

[4] Reference for Silk Road historySee for example Hopkirk, 1980.

[5] A recent history of the Great Plague puts it as follows: "... the plague bacillus, Yersinia pestis, swallowed Eurasia the way a snake swallows a rabbit – whole, virtually in a single sitting. From China in the East to Greenland in the West, from Siberia in the North to India in the south, the plague blighted lives everywhere..." From John Kelly. *The Great Mortality. An Intimate History of the Black Death, the Most Devastating Plague of All Time.* Harper Collins, 2005, quoted in *The Wall Street Journal Europe,* February 25-27, p. P4.

market principles. In this integration process the West also pulled along gradually, if imperfectly, the South. In contrast, the East remained economically quite separate from the globalization process, although the region was highly integrated internally within the Soviet Empire, and to some extent within China. And of course, the 30 year period of 1955-85 was characterized by a high degree of geopolitical, military and ideological competition and tension among the Western and Eastern protagonists as part of the "Cold War".

[Figure 2]

In the 1980s a major shift in the geopolitical constellations occurred, as first China opened up politically and economically, followed after 1985 by a loosening of political and economic controls in the Soviet Union under its last leader, Mr. Gorbachev. This in turn led to the dramatic, albeit largely peaceful dissolution of the Soviet Empire between 1989 and 1991, which set the stage for a transition to market economic systems in the former Communist countries. This and the continued rapid further process of global economic integration had two major interrelated consequences (Figure 3):

[Figure 3]

First, the world no longer could be characterized as falling into three separate blocs; rather, it is now a highly interdependent political system and economic, in which there are some countries and regions that risk being marginalized (especially Africa) or subject to chronic conflicts (Middle East), but where much of world's population is increasingly and intensely linked and interdependent politically as well as economically.

Second – and this is the point of departure for our analysis in this paper –, the previously hard borders between the Western, Eastern and Southern parts of Eurasia gradually softened as the Iron and Bamboo Curtains disappeared. With this the opportunities for economic integration throughout Eurasia dramatically increased. Of course, this process has only started. It still has to overcome many obstacles, not least the consequences of the disintegration of the Soviet Empire which led to the creation of new borders and the breakage of many traditional economic links across the vast space of the Former Soviet Union. These in turn resulted in a major and protracted economic collapse in the newly created states of the Commonwealth of Independent States (CIS)[6].

The prospective integration of the Eurasian super-continent, as and when it happens, will have major potential implications not only for the Eurasian region, but for the world economy. This derives from the she size and weight of the Eurasian economic space: In terms of demography, Eurasia in 2004 accounted for 69% of the world's population. Over time, this share is expected to decrease somewhat, as the overall population of the region grows less rapidly than for the rest of the world. Nonetheless, by 2050, the region is projected to still house almost 2/3 of the world's population (Figure 4).

[Figure 4]

In terms of its economic size, Eurasia currently accounts for about 53% of World GDP in current US dollars[7]. For the future much will depend on whether the developing and transition countries of Eurasia – East Asia, South Asia and Eastern Europe and Central Asia – will maintain their exceptionally high growth rates of recent years on the one hand, and whether the industrialized countries of the region – Japan and Western Europe – can recover from their economic stagnation that has gripped them over the last

[6] Linn (2004) documents this disintegration process and its economic impact.

[7] Based on the World Bank's *World Development Indicators*.

decade[8]. What does appear reasonably certain is that China and India will continue to grow to become world economic powers in their own right within the next 20-30 years. China may well surpass all its Eurasian competitors in economic size by the year 2016 and the US sometime in the early 2040s. India is projected to reach the former benchmark by the early 2030s (see Figure 5)[9]. If Europe and Japan can turn around their economic fortunes by good macroeconomic and structural policies and reap the potential benefits of economic integration with their dynamic continental neighbors, then the Eurasian economy may well approach the 60% mark or higher in terms of its share in the world economy by 2050. In one set of heroic projections, the GPDs of China, India, Russia, France, Germany, Italy, Japan, and the UK combined will exceed that of the US by 2 ½ times in 2050[10].

[Figure 5]

The remainder of this paper explores how the economic integration process in Eurasia is proceeding in six key areas[11]:

1. Energy Trade and Transport
2. Non-Energy Trade and Transport
3. Trade in Illicit Drugs
4. Investment and Capital Flows
5. Migration
6. Communication and Knowledge

The paper also discusses briefly the institutional framework for integration in Eurasia and the possible tensions between political and economic dimensions of the integration process. It concludes with some preliminary observations on possible policy implications. Many of the ideas put forth below are to be taken as hypotheses which are only partially tested by the analysis and the data presented in the paper. In this sense, the paper summarized work in progress rather than finished research results.

One final caveat before we turn to the details of our analysis of Eurasian integration: By focusing the spot light in this paper on Eurasia, we do not mean to belittle the importance of safeguarding and further strengthening the links between Eurasia and its major sub-regions and the rest of the world, or that integration in other regions of the world – Africa, the Americas, the Middle East, and Oceania – do not face important challenges of regional and world-wide economic integration. The core point that we are trying to establish is that integration in Eurasia, after a long delay, is catching up with the world-wide process of integration that has taken place since the mid-1990s and will likely continue into the future with significant opportunities and challenges for the region as well as globally.

[8] According to World Bank's World Development Indicators, the developing countries of East Asia and the Pacific grew at a rate of 7.7% in 2003, those of South Asia 7.4%, and those of Europe and Central Asia 6.0%. Japan grew at 2.1% and Western Europe at about 1%. The US grew at 2.9%, and the World economy at 2.5%.

[9] Based on Dominic Wilson and Roopa Purushothaman " Dreaming with the BRICs: The Path to 2050" Goldman Sachs, *Global Economic Paper No. 99*, October 2003, p. 3.

[10] Ibid., p. 19

[11] There are additional areas that could be considered in terms of their relevance as region-wide integrating factors or concerns, such as tourism development, environmental and natural resource (esp. water) management, security and crime (other than trade in illicit drugs, including human trafficking).

1. Energy Trade and Transport

Perhaps the single most important force of economic integration today in Eurasia is the linkage of major fields of oil and natural gas reserves in Russia and around the Caspian Sea with the main consuming centers of Western Europe and increasingly East and South Asia. Indeed, one of the main drivers of the economic recovery in recent years of the CIS has been the rapid growth of energy exports from that sub-region. (Hill 2004) Moreover, further substantial increases in oil production and exports are projected from Russia, Azerbaijan and Kazakhstan by 2010[12]. In addition to production and exports from the CIS, there are other important energy flows in Eurasia, including from Indonesia to East Asia and potentially from Burma to India (see the schematic representation of key energy flows in Figure 6).

[Figure 6]

According to BP (2004), Eurasia accounted for around 36% of global oil production and just over 50% of global natural gas production in 2003 (Tables 1 and 2). During the same year the region consumed around 55% and 57% of the world's oil and natural gas. For electricity there is until now only a small cross-border market within Europe and among European countries a (Figure 7). Most Eurasian trading blocs are net importers of energy – in particular Japan and South Asia, who export virtually no energy products. Figures 8 and 9 depict the flows of oil and gas trade, showing that Russia and Central Asia provide the lion's share of European oil imports, while the Middle East supplies the majority of Asia's oil (BP 2004). For natural gas, flows are primarily from the CIS and northern Europe to the rest of Europe and from Southeast Asia and the Middle East to much of the rest of Asia. Transatlantic and transpacific energy flows are relatively minor.

[Tables 1 and 2; Figures 7-9]

Data on energy trade within Eurasia show that there has been rapid progress of integration among Eurasian sub-regions in recent years. If one looks at energy trade 1995-2003 within Eurasian sub-regions, one sees average annual growth of 8.5%. Over the same period, energy trade between the different blocs grew by an annual 14.6% (Figure 10). The blocs that are the most outward focused – measured by the relative weight of imports from outside the bloc – are China, Japan and South Asia. The former two satisfy their energy needs by importing from Eurasian countries, while most of South Asia's energy imports come from outside Eurasia (Figure 11).

[Figures 10 and 11]

Bilateral energy trade remains largest, measured in dollar terms, internally within Europe, but is growing fastest between CIS and Europe and between Asia Minor and Japan (Figure 12). Growth is slowest within East and Southeast Asia and between it and its Eurasian trading partners. Overall, while the landscape is an evolving one it shows considerable spatial integration and increased long-distance trade.

[12] Peter Thomson (2005) predicts that between 2003 and 2010 oil exports for Russia could increase by 130 million tons and from Azerbaijan and Kazakhstan by a total of 90 million tons. Of course, a lot depends on the actual implementation of development projects throughout CIS, often financed and managed by European interests. For example, the Karachaganak oil fields in Kazakhstan – which in early 2004 produced 210,000 bbl per day – are being developed by a consortium led by British Gas and ENI (Italy). By 2010 the Karachaganak oil fields should yield 500,000 bbl per day (EIA 2004d).

[Figure 12]

To meet the burgeoning demand for energy in the region, resource rich areas – i.e., CIS and parts of Asia Minor – have been expanding energy transport capabilities. Figures 13 and 14 illustrate the number and direction of planned oil and gas pipelines leading to Europe. For oil projects, new pipelines will either improve existing infrastructure and capacity for oil from Russia or will bring new sources of energy from the Caspian Sea region via Turkey. Natural gas pipeline networks, already considerably more dense than oil networks, will see expansion in much the same way: from Russia or from the Caspian region.

[Figures 13 and 14]

The reorientation of Eurasia's energy trade from a north-south (Russia-Central Asia) pipeline system from Soviet times into an East-West network extending into Europe and East Asia is still underway. There are a number of large pipeline construction projects, many of which involve Russian production and exports (see Figure 15 from EIA 2004e), but there are currently also three large pipeline projects connecting the Caspian Sea region to markets in Europe. First is the Caspian Pipeline Consortium Project which will connect Kazakhstan's oil fields to the Russian Black Sea port of Novorossiysk. The Baku-Tibilisi-Ceyhan (BTC) pipeline, a 1,040 mile, $2.9 billion project will connect oil fields in Azerbaijan to the Turkish port of Ceyhan. It is expected to become operational in 2005. (EIA 2004b) Azerbaijan currently lacks any infrastructure to export its natural gas. The $1 billion construction of the 550-mile Baku-Tibilisi-Erzurum or South Caucus Pipeline (SCP) will allow Azeris to export 1.5 bcf of natural gas per day (EIA 2004a)[13].

[Figure 15]

While pipeline construction feeding the European market has received the most attention, important projects have also been considered or are being undertaken connecting Russia and Central Asia to East and South Asia[14]. For example, China and Kazakhstan signed a $700 million contract in 2004 to construct a pipeline from Astasu to Xinjiang in Western China. Another pipeline into China, this one from Anagarsk in Russia, is being discussed. If built it would carry as much as 1 million bbl per day (EIA 2004c). And in December 2004, Russia is reported to have "committed to building the Taishet-Nakhodka pipeline, a gargantuan 4,300 kilometer project that will cost $12 billion and is designed to provide 80 million tons of oil per year to the Asian Pacific market, including 30 million tons to China."[15] In addition, there India and Pakistan have a strong interest in Central Asian and Iranian gas, with options being explored for natural gas pipelines from Iran and Turkmenistan to Pakistan and India[16]. Of course, as Siddiqi (2004) points out, there are considerable political issues that could impede such pipeline projects, especially continuing insecurity in Afghanistan.

In addition to a growing continental energy-interdependence for oil and gas, it is likely that there will be increasing integration of electricity grids for the continent. This will be driven in part by the efficiency benefits from integrated electricity grids and markets, and partly by the large long-term export potential

[13] There is considerable economic and geopolitical interest in Europe and the US to diversify access to Caspian energy resources, as a way to avoid dependency on Russian exports and transit routes, especially for gas. See Cohen (2005), and Thomson (2005). In addition, the financial benefits to the transit countries can be substantial. Ukraine's revenues from gas transit amount to about $1.5 billion a year. Georgia now receives $10 million a year, which is expected to increase to $50 million when the BTC pipeline is completed. Georgia's transit revenues will be further increased when the SPC gas pipeline is completed (Thomson 2005).

[14] With its completion in 1997, the Korpezhe-Kurt Kui pipeline, linking Turkmenistan and Iran, was the first Central Asian pipeline to bypass Russia. This was the first symbolic step in reorienting pipelines from a north-south into an east-west configuration (EIA 2004b).

[15] Ariel Cohen, "Russian Oil after YUKOS: Implications for the United States." *Executive Memorandum No. 961,* February 28, 2005, The Heritage Foundation, Washington DC, p. 2.

[16] Stephen Blank, "India's Energy Offensive in Central Asia." *Analyst,* March 9, 2005, Central Asia-Caucasus Institute, Johns Hopkins University, http://www.cacianalyst.org/view_article.php?articleid=3117

of Central Asia for hydropower. In particular the Kyrgyz Republic and Tajikistan have large hydro resources which can in principle be exploited for electricity exports to the large neighboring countries and through "wheeling" across interconnected electricity grids even to distant markets in Europe and to Chinese and Indian population centers[17]. However, as the World Bank (2004) report on Central Asia's electricity export market potential makes clear (see also Figure 16), these are long-term development options, which will require large public and private investments, both in generation and transmission capacity. Such investments and their financing in turn will depend on firm take-off agreements and agreements on integrated electricity market management, on mitigation of political and security risks along transmission routes and on improvements in the domestic market regulation, operation and maintenance to ensure technically secure and commercially viable electricity market links (World Bank 2004, Thomson 2005)[18].

[Figure 16]

In sum, continued development and integration of the energy sector in Eurasia is a big opportunity and challenge. Eurasia's continued rapid economic growth will depend to a significant extent on and effective development and integration of the energy sector and markets. At the same time, with continued rapid increases in energy demand in major consumption centers, large investments in energy production and transport/transmission will be needed. Such investments will however only be made if there is a reasonably secure political, regulatory and investment climate in the region. The mutual dependence of key players in the energy sector will further increase over time, as will the potential for competition and even conflict among competing energy producers (Russia, Central Asia, Iran) and among energy consumers (the EU, China, India). With the continuing shit of demographic and economic weights towards Asia in the coming decades, there will be growing attention needed to how the energy needs of Asia will be met effectively and peacefully. With Eurasia representing a large share of both energy supply and demand in the world, how the key players, both among governments and in the private sector, respond to these opportunities and challenges will have global economic and political implications, both in the global energy demand and supply balance (and hence its impact on global energy prices), in its impact on global economic growth, and in its effects on geopolitical relations among key global political players.

2. Non-Energy Trade and Transport

Traditionally, economic integration has been analyzed and measured mostly with regard to trade and transport linkages. Turning from the most obvious of such linkages in the area of energy to other areas, the first point to be made is that the collapse of the Former Soviet Union (FSU) had a devastating impact on trade within the former Soviet Union and its neighbors under the Soviet regional trading block known as COMECON. Of course, the trade that did take place prior to 1991 in the FSU was not the result market forces, but part of a highly specialized, regionally dispersed but also highly integrated system of production and exchange under the Communist command economy. The collapse of much of this trade, along with other impacts of a far-reaching process of economic disintegration in the FSU, in turn caused a severe economic recession in the new republics of the FSU (Linn 2004).

[17] World Bank, *Regional Electricity Export Potential Study*, Washington, DC, December 2004; also Thomson (2005).

[18] Through targeted engagements (equity participation, direct investments, supply and take-off agreements) Russia's state-owned electricity company, RAO-UES, is positioning itself to play a major role in developing, managing and supplying the regional energy markets in and around the CIS. (Thomson 2005, Crane 2005).

However, in what can be seen as an irony of history, the collapse of the Soviet Union and of its highly integrated internal economic structure, while causing a severe economic shock to the new republics of the FSU, also opened the door for a far-reaching process of integration throughout the Eurasia region, by permitting the first time in centuries the potentially free flow of goods and services across the entire Eurasian super-continent. Not only did trade within the FSU recover, especially after the Russian financial crisis of 1998, but trade of the new FSU republics with the rest of the world and especially their neighbors in the Eurasian economic space recovered even more rapidly as part of a growing regional trade integration process. Of course, major obstacles still exist to the free and efficient flow of trade in the region: trade policies, transport infrastructure and transit conditions remain very problematic in many parts of Eurasia and effectively raise the costs of trade and severely reduce the competitiveness especially of the large land-locked areas of the region. This section briefly reviews the trends in regional trade of Eurasia and considers some of the opportunities and obstacles for further trade integration.

Figure 17 depicts in a stylized fashion some of the basic presumptions about trade flows in Eurasia: Three principal trading blocs make up the region – a European bloc, a CIS bloc and an Asian bloc. Much of the trade that does take place would be expected to do so within the trading blocs and between them and the rest of the world, and especially with the United States. In fact, the data confirm only part of this story. Figure 18 shows that a much of trade in fact takes place within trading blocs, but it also shows that trade between the combined Europe and CIS trading bloc and Asia exceeds that of each of these two blocs with the US. In other words, Eurasia is more connected internally through trade than it is with the rest of the world.

[Figures 17 and 18]

This picture can be refined by looking at the level, growth and composition of trade by sub-regional trading blocs within Eurasia (Figures 19-22). The following stylized facts emerge:

- First, for all sub-regional blocs, except Europe, trade with partners outside the sub-region is more important that trade within the region. For example, CIS countries exported around $23 billion worth of merchandise to other CIS countries, but exported $83 billion to other Eurasian countries[19]. Similarly, South and Southeast Asian countries traded $136 billion worth of merchandise among each other, but $304 billion with others.
- Second, for all sub-regional trading blocs, intra-Eurasian trade is more important, and in most cases much more important, than trade with the rest of the World. Even in the two most outwardly-focused blocs, Japan and South Asia, exports to non-Eurasian countries makes up only 43% and 46% of total exports respectively. Europe, the largest Eurasian trading bloc, sells only 20% of its total exports outside of Eurasia.
- Third, overall export growth has been most rapid for Asia (excepting Japan), and it has been especially rapid in terms of the growth of exports from Asia to the rest of Eurasia. By contrast, the growth of Europe's and Japan's trade has been relatively slow overall and also within Eurasia. Much of the impetus for trade integration in Eurasia clearly emanates from and is associated with the rapid growth of much Asia (except Japan).
- Finally, despite the importance of energy flows in the region, trade is overwhelmingly concentrated in traditional non-energy areas, such as machinery and transport equipment (43%), manufactured goods (30%) and chemicals and related industrial products (13%) (Figure 22).

[19] Despite their recent recovery with regard to GDP and trade, CIS countries still under-perform in terms of export levels when compared to other countries of similar per capita GDP (Freinkman 2004).

Further trade integration in Eurasia will depend on three main factors: first, trade policy pf the countries in the region; second, development of regional transport infrastructure; and third, transit and trade facilitation across and behind borders.

[Figures 19-22]

For trade policy, WTO membership is a key element of global and regional integration. China's membership in December 2001 was a major step forward in this regard, but since most CIS countries are not yet WTO members, their integration into the world economy and in Eurasia still lacks for now an important impetus. It is hoped that the largest of the CIS countries, Kazakhstan, Russia and Ukraine will become WTO members very soon. Trade integration can also be pursued on a purely regional or bilateral basis. Here Eurasia shows some of the most intense activity around the globe with the frequency of regional trade agreements (RTAs) most significant in Europe and the CIS, although East Asia have engaged in many fewer such agreements (see Figure 23 and World Trade Organization 2000).

[Figure 23]

The CIS countries, because of their central location at the heart of the Eurasia region, are particularly important for permitting and facilitating regional trade integration Eurasia-wide. Various reviews of regional trade policy and agreements in the CIS (Akiner, 2001; Muzafarov, 2001; Freinkman et al., 2004; World Bank, 2005) have shown that the high frequency of bilateral, regional and global trade agreements in the CIS, while in principle to be welcome as a recognition of the importance of regional trade integration, in practice has not yet led to effective trade cooperation within the CIS. The principal reasons are two-fold: One reason is the complexity of the overlapping trade agreements (see Figure 24), which leads to what is referred to as a "spaghetti bowl" effect of confusing and often unimplementable trade relations among countries in the region. The second, and related, reason is that most of the agreements have actually not been implemented or enforced in practice, either due to a lack of political readiness for cooperation and integration, or because of the weakness of administrative capacity and high incidence of corruption in implementing national trade policies in many of the CIS countries.

[Figure 24]

Aside from trade policy, transport infrastructure and transit facilitation are key elements that determine the costs of trading and access to world markets. These are particularly significant for the vast land-locked regions of Eurasia, most notably the countries of Central Asia. The distances to the nearest ports and some estimated costs of shipping (both in terms of money and time) are summarized in Figure 25 and Table 3. The key question which confronts governments and private firms alike in Eurasia is whether and how the both kinds of costs of shipping over the land routes can be significantly reduced in the foreseeable future. One element is the improvement in the transport infrastructure (rail, roads and air). Various elements of this are being put in place in various parts of Eurasia: From the West, the Trans-European Network (TEN) and the Transport Corridor Europe Caucasus Asia (TRACECA) programs of the European Union have made efforts to strengthen transcontinental transport routes. From the East, the Asian Development Bank has supported regional transport infrastructure improvements in Central Asia and Western China (in cooperation with other international financial institutions and the countries of the sub-region under the umbrella of the Central Asia Regional Economic Cooperation Initiative – CAREC). Since 2002, with the opening up of Afghanistan and the rehabilitation of the Afghan road net work and reconstruction of key bridges between Afghanistan and its Central Asian neighbors, the north-south transport corridor in Central Asia is being reopened. Plans are also being made for improved regional transport interconnection in

North-East Asia (NIRA, 2003) Ambitious plans are also being made to improve the transcontinental railway system (See Box 1 for an example). In view of the great distances in Eurasia, the scope for the expansion of air transport is also huge (see Figure 26 for one projection of the possible growth of EU-China flights). At this time, some parts of Eurasia, in particular the South Caucasus and Central Asia, are very poorly served by international and regional air service, although some investments have been made modernizing regional airport facilities with donor assistance.

[Table 3 and Figures 25 and 26]

Box 1: Kazakhstan Plans Rail Link between East Asia, Europe

"Kazhmurat Nagmanov, Kazakhstan's Minister of Transportation, said Kazakhstan will start building a railway link in 2005 connecting East Asia with Europe. He made the announcement on December 29. The 3,000-kilometer link is estimated to cost US$3.5 to 4 billion and should be completed within 15 years. It will connect China via Kazakhstan with Turkmenistan and Turkey. The link is designed as an alternative to the Trans-Siberian railway in Russia which also connects Asia with Europe and an alternative to ocean shipments. Both Kazakhstan and Russia predict freight transit between Europe and Asia will grow and be more lucrative in the future. Once built, the Kazakh link will have an advantage over the Russian alternative: the Kazakh railroad will be of international narrow-gauge standard, while the Russian railway is five inches wider, designed to slow an enemy during the wars of the 20th century. This causes delays at borders since trains need to have their wheels changed.

Minister Nagmanov said transit from East Asia to Europe via Kazakhstan would take 10 days. Cargo shipments are expected to reach 35 million to 40 million tons a year by 2010, with potential for further growth."

From www.kazakhembus.com, March 2005

Perhaps the greatest challenge to further trade integration lies in the need for improved transit facilitation across the many boundaries and long distances involved in the transcontinental transport routes of Eurasia. In some ways problems have been getting worse rather than better:

- increased visa requirements (e.g., among CIS member countries, but also in Central Europe with the expansion of the European Union[20]),
- time consuming customs and other border inspections and expensive fees,
- informal and corrupt payments required at border and interior check points and police barricades[21],
- limited coverage and high expenses of the TIR (International Convention for Road Transport in Transit Traffic) system,
- high Russian fees for over-flight rights for trans-Siberian international flights[22];
- lack of communication between border posts on transcontinental routes;
- lack of, or poorly developed, private trade-forwarding institutions in many of the CIS countries.

Various initiatives are underway on a sub-regional basis to improve transit facilitation in key Eurasian corridors. For example, the Trade and Transport Facilitation in South East Europe Program (TTFSE) is designed to reduce dramatically the time it takes to cross the many borders as trucks move from Turkey to Western Europe while actually improving customs and security controls[23]. For Central Asia the EU Border Management Program for Central Asia (BOMCA) is designed to help improve border

[20] The EU required its new member countries, among them Poland and Hungary,. to tighten visa and other entry requirements for border transit with their eastern neighbors (Oxford Analytica 2005).

[21] This can cost around $ 1,500 per truck for crossing one country alone (Kazakhstan) (EBRD 2003). When moving a generic consignment from Northern Europe to Tbilisi, Georgia the Georgian leg of the journey accounts for almost half of the total transportation costs. It is estimated that 90% of the costs incurred in Georgia accrue to border guards, road police and other such agencies (World Bank 2003).

[22] According to a report in the Financial Times (March 15, 2005) European carriers paid Aeroflot, the Russian state airline, 250 million in 2003 for the rights to fly over Siberia.

[23] This program is financed by the World Bank. See the official website http://www.ttfse.org/

management[24]. But much needs to be done to improve transit conditions so as to facilitate an expanded flow of trade throughout the Eurasian region.

In sum, there is already a significant amount of intra-regional trade across the Eurasian super-continent, but further trade expansion is possible and likely, especially if it is supported by improved trade policy (especially WTO access by the larger CIS countries), improved transport infrastructure, and enhanced trade facilitation. More work is needed to assess the likely investment requirements, the key priorities and sequencing of measures, and to estimate the possible gains from improved integration. In addition, improved cooperation among the governments of the countries in the Eurasia region and in key sub-regions will be essential to make sure major remaining obstacles to increased trade integration are removed or at least mitigated[25].

3. Trade in Illicit Drugs

One particular flow of trade is of special significance for the Eurasia region: the trade in illicit drugs[26]. Eurasia has an overwhelming share of the world's intravenous drug users (IDUs) accounting for some 75% of the total. Figures 27-29 show that the drug problem for Eurasia is principally one involving the use of opiates and its production, with over 60% of illicit drug use involving opiates, and well over 90% of the world's opiate production located in three countries of Eurasia – Afghanistan, Lao PDR and Myanmar/Burma. Afghanistan alone produces an estimated three-quarters of the world's opium.

[Figures 27-29]

The principal flows of drugs in Eurasia are shown schematically in Figure 30. Exact quantification is difficult, but it is clear that the illicit drug trade moves huge quantities of opiates across Eurasia. Although production of opium in the "Golden Triangle" of South East Asia appears to have somewhat declined in recent years, by all accounts, production in Afghanistan in 2003 and 2004 has reached near record levels[27]. The potential farm gate value of global opium production was estimated by UNODC to amount to about $ 1.2 billion in 2003. In recent years opiate use appears to have stabilized and may even be declining in Western Europe, but has been increasing rapidly in Russia, which, according to UN estimates, is now the largest heroin market in Europe. In Asia, too, a stabilizing trend in drug use can be discerned, with the exception of China, where drug use appears to have increased at least through 2003. The estimated number of drug users in 2003 was in excess of one million, representing a 15-fold increase since 1990. An increasing share of the drug trafficking from Afghanistan appears to run through Central Asia. According to one estimate there has been a 30-fold increase in heroin seizures in Central Asia since 1993[28].

[24] This program is financed by the European Union and implemented by UNDP. See the official website www.eu-bomca.org/en

[25] Various studies are currently underway that will help address some of these issues. For example, the World Bank is carrying out a major study on integration of the Europe and Central Asia Region. UNDP and ADB are collaborating on a study of regional integration and cooperation in Central Asia which among other things aims to estimate the benefits to Central Asian countries from enhanced trade, transport and trade facilitation. However, while extremely useful pieces of the puzzle, even these studies remain partial in their coverage of the Eurasian integration process.

[26] Unless otherwise noted the information and data provided this section are drawn from United Nations Office on Drugs and Crime (UNODC), *World Drug Report 2004,* Vienna, 2004 2004 www.unodc.org

[27] Paula R. Newberg, "A Drug-Free Afghanistan Not So Easy", *YaleGlobal Online*, 7 March 2005, http://yaleglobal.yale.edu/display.article?id=5385

[28] Kairat Osmonaliev, "Developing Counter Narcotics Policy in Central Asia: Legal and Political Dimensions." *Silk Road Paper,* January 2005, Central Asia-Caucasus Institute Silk Road Studies Program, SAIS, Washington, DC.

[Figure 30]

Many efforts have been and are being made to control the production, use and trafficking of drugs in the countries and sub-regions of Eurasia, but have generally been found to be wanting as there appears to have been little impact on the flow of illicit drugs across the super-continent[29]. Like elsewhere in the world, as long as high demand for illicit drugs continues to persist in Western Europe, Russia and increasingly in China, it will probably be impossible to reduce significantly the production in places like Afghanistan. Even more so, and more certainly, it will be difficult to stop the trafficking of drugs in places like Central Asia. Unfortunately, this trafficking in drugs has a very corrosive impact on the transit countries, as the illegal flow of drugs undermines already weak governance structures, fosters corruption and crime, and locally also leads to increased drug use and with it increased risks of drug-related diseases, especially of HIV/AIDS. Since more generally, illicit drug use, production and trafficking have these deleterious impacts throughout the region, a concerted approach to the region-wide drug problem for the Eurasian super-continent would appear to be an increasingly pressing priority. One thing appears to be clear: as long as the principal hubs of drug consumption do not manage to control the effective demand for drugs, measures to limit production and transcontinental trafficking will have only limited effects.

4. Investment and Capital Flows

Cross-border investment and capital flows, particularly foreign direct investment, have also been a recent force acting to integrate Eurasia. Until about two decades ago, there was almost no FDI or other capital flows to speak of in the region, except in Europe, Japan and South-East Asia. China and India had yet to start the process of liberalizing their economies and the former Soviet Union with its command economy and isolationist economic policies was still intact. The fall of the Soviet Union and the reorientation of political alignments and trading patterns in Eurasia have been accompanied by a surge in foreign direct investment in the region outside the traditional areas. While Europe is still the largest recipient and source of FDI, investment growth is fastest east of Europe.

FDI and capital flows contribute to integration via two channels. First is the obvious channel: capital flows from one country into another tie the two together economically. Secondly, by promoting growth (and technology diffusion), capital flows likely increase trade and political cooperation – through which integration is further enhanced. Of course, there are also significant potential downside risks from financial and capital market linkages:

- Among them, the contagion effect of financial crisis in one country in its impact on neighboring countries is perhaps the most obvious. It was painfully experienced during the 1997/8 financial crisis, when the financial collapse which started in East and South East Asia transmitted itself world-wide, but also within Eurasia. For example, the withdrawal of Korean investors from the Russian government bond market in the wake of the Korean financial crises was one factor explaining the timing of the Russian financial crisis in 1998. The Russian crises in turn affected Russia's neighbors through various transmission mechanisms, including reduced capital outflows and investments.
- Another downside of capital mobility set in when capital flight prevails, as it has for many years in the case of Russia. Some $20 billion of flight capital a year are thought to have left Russia during much of

[29] See for example Niklas Swanstrom, "Multilateralism and Narcotics Control in Central Asia." *CEF Quarterly*, February 2005, pp. 5-15; Svante E. Cornell, "Stemming the Contagion: Regional Efforts to Curb Afghan Heroin's Impact", *Georgetown Journal of International Affairs*, Winter/Spring 2005, pp. 23-31.

the 1990s. While much of this was globally invested, much of it likely found its first "resting place" in Western Europe (especially Cyprus and Switzerland).

- Finally, there is the monetary dimension of international financial linkages: Asian economies have been the greatest holders of international foreign reserves, mostly kept in US dollars. However, with the introduction of the Euro and the recent pressures on the value of the dollar, there is increasing speculation that Asian central banks may wish to diversify their reserves by increasing their Euro holdings relative to the dollar. This special dimension of increasing Eurasian integration could have very important and potentially disastrous implications for the world economy.

In the rest of this section we shall focus mostly on foreign direct investment (FDI) as an important source of economic linkage and integration. Unfortunately the data on FDI are weak, especially since they do not readily permit an assessment of regional and sub-regional FDI numbers and trends disaggregated by destination and source. Nonetheless, we have taken a first stab at the available numbers to see whether the stylized FDI flows shown in Figure 31 are broadly accurate.

[Figure 31]

Eurasia as a whole is a net foreign direct investor, albeit only slightly so. It is the repository of over 60 percent of the world's FDI stock (Figure 32). Within Eurasia, Europe is both the biggest investor and recipient of investment. Europe, China and East and Southeast Asia together account for almost the entire inward stock of FDI. In outward stock, the story is much the same, except that Japan's role is significant. Investment volumes in CIS, Asia Minor and South Asia are negligible by comparison, but interestingly these three regions are also the ones that have seen the greatest FDI growth from 1995 to 2003. For example, while FDI growth in Europe has averaged around 15% annually (for both inward and outward investments from 1995-2003), annual inward and outward FDI growth has been 31% and 43%, respectively, for the CIS. For South Asia, FDI growth rates have been 17% and 30% (Figure 33). In part this reflects growth from a low base.

[Figure 32 and 33]

Six broad hypotheses or presumptions regarding the composition and direction of FDI trends for Eurasia can be posited, even though the evidence available to us does not yet permit a firm set of conclusions:

1. Traditionally, FDI flows from the EU and Japan to the rest of Eurasia are likely to have been the most significant, albeit relatively small compared to the two-way FDI flows from and to the rest of the world (especially the US). Nonetheless, there are likely to have emerged some new trends recently, which point to increased regional integration and diversification of capital flows within Eurasia.
2. Over the last 20 years there has been a rapid increase of European investment in China.
3. Especially after 1998, there has been increased direct investment from Europe to Russia.
4. Recently, there have been increased investment flows from Russia to Central and Western Europe and to the rest of the CIS (Table 4)[30].
5. There has been increased FDI from Turkey in the CIS, especially in Russia and in Central Asia.

[30] Crane (2005) has looked at Russian investments in the CIS and found that Russian firms are indeed increasingly investing in neighboring CIS countries. Russia has a considerable share of FDI inflows in Belarus, Moldova, Armenia and Ukraine (Figure 33). Russian firms seem to be more adept than investors form Western industrialized countries in dealing with the poor business climate widely prevailing in the CIS countries. Crane also concludes that with the exception of the energy sector, the Russian government has not been directly involved in guiding foreign investments.

6. China and India have started investing in the CIS, especially in the energy sector, as part of their strategy to increase their access to Russian oil[31].

[Table 4]

This increased FDI engagement across borders in Eurasia is to be welcomed for a number of reasons: First, all available evidence, including research in the region itself, confirms that foreign direct investment on balance helps improve productivity and growth. For example, Carstensen (2004) has used panel level data to examine the welfare effects of FDI in Central and Eastern Europe, and finds the link between FDI and growth to be significant. And Campos (2002) examined the impact of FDI on GDP growth based on panel data on 25 countries in East and Central Europe and the former Soviet Union between 1990 and 1998. He finds that FDI has a positive and significant causal impact on GDP growth[32]. This finding implies that FDI – via channels that result from economic growth – has the externality of encouraging further integration, not only between the two countries which were involved in a particular investment transaction, but region-wide

Of course, a major prerequisite for higher FDI, from other parts in Eurasia and from the rest of the world, in the lagging sub-regions (CIS, Indian subcontinent, Asia Minor) is that the local business and investment climate be supportive for investment and enterprise development more generally. Much remains to be done in this regard not only at the national level in these sub-regions, but also at the provincial and municipal level, since much research on success and failure to attract foreign investment has shown the importance of local business conditions[33].

In conclusion, the recent strengthening of cross-border investments in Eurasia as part of the growing economic integration of the super-continent is to be welcomed. Taking a leaf from the experience of economic integration in the EU, as well as across the Atlantic between the US and Europe and across the Pacific between the US and East Asia, in the longer term it is the integration of firms through investments across borders which brings the greatest boost to trade and growth, as well as the greatest guarantee of stable long-term political relations[34].

[31] Some observers are talking about the revival of the idea of a "Strategic Triangle" (attributed originally to former Russian Prime Minister Primakov) between China, India and Russia in the political, energy and commercial fields (see , "Setting the Stage for a New Cold War: China's Quest for Energy Security", *Power and Interest News Report, PINR,* 25 February 2005, http://pinr.com/report.php?ac=view_report&report_id=272&language_id=1 It is surmised that Chinese state banks helped finance with a $6 billion loan facility the purchase (initially by a dummy company, eventually by the Russian state oil company, Rosneft) of Yuganskneftegaz, the subsidiary of YUKOS in December 2004 banks (Cohen, 2005) For India, the national oil and gas company ONGC is reported to have supported the same sale with a dummy bid (Blank 2005). From the same report the following quote attests to the growing engagement of Indian interests in the CIS energy sector: "At the December 3-4, 2004 summit with Russia, India announced a $ 3 billion Indian investment in the Sakhalin-3 oil field and in the joint Russian-Kazakh Kurmangazy oil field in the Caspian. India's Energy Minister, Mani Shankar Aiyer has stated that 'what I am talking about is the strategic alliance with Russia in energy security, which is becoming for India at least as important as our national security." (Blank, 2005) See also Pramit Mitra, "Indian Diplomacy Energized by Search for Oil", *YaleGlobal*, 14 March 2005, http://yaleglobal.yale.edu/display.article?id=5419

[32] Campos uses instrumental variables to control for reverse causality.

[33] See EBRD 2003 for the transition economies. For Vietnam, Meyer (2005) analyzes the importance of local institutions and policies – including local education rates, industrial real estate availability, and passenger transport volumes – in attracting foreign direct investors. He finds that such sub-national institutional factors have a significant impact on FDI entry location and mode. Elsewhere in China, case studies have pointed out the importance of an active city government in reaching out to and luring foreign investors (Wang 2004).

[34] For a discussion of the role of economic links as a glue for stable long-term transatlantic relations, see Johannes F. Linn, *"The Economic Ties that Bind"* Current History, November 2004, pp. 370-375

5. Migration[35]

Population movements have been another important integrating factor in world history, including in Eurasia. Historically large transcontinental migration flows of people took place in prehistoric and ancient times – mostly from East to West. Then there was – in the opposite direction – significant voluntary and forced migration of Russians[36] in Tsarist Russia, and subsequently the mostly forced movement of large numbers of people in the Soviet Union. More recently, there has been significant migration in Europe as a result of war and post World War II, in response to economic opportunities. However, these recent migration flows within Eurasia do not compare in relative size or significance with the centuries-long history of transatlantic migration from Europe to the United States[37]. As with trade and capital flows, the Iron and Bamboo Curtains – and especially the restrictive immigration policies in Europe – acted as effective barriers to large movements of people on a transcontinental scale.

After the demise of the Soviet Union, there were initially some sizeable movements of people mostly of Russian origin from the new CIS republics back to Russia. Hill and Gaddy (2003) cite estimates of around 3 million people[38]. And in countries with war and civil disturbances, refugees and internally displaced people relocated often within their own countries (Azerbaijan, Georgia, Tajikistan). Since the early transition years, however, most of the migration movements are for economic reasons. They fall into several streams, as schematically shown in Figure 34:[39]

- Migration within the recently enlarged European Union and its immediate neighbors (esp. Turkey, South East Europe and Ukraine, Moldova, etc.).
- Migration from South Asia to Western Europe, often in stages, via the CIS; in frequent cases, such migrants stay considerable periods in transit or settle along the way in the CIS countries, due to difficulties entering Central and Western Europe.
- Migration from Central Asia to Russia (and increasingly within Central Asia to Kazakhstan).
- Migration within Russia from the cold northern and north-eastern regions to Central and South-Central Russia
- Migration within China and from China to Far-Eastern Russia.

[Figure 34]

Unfortunately, comprehensive and accurate data on Eurasian migration flows are scant. It is hoped that ongoing research will help fill some of the gaps. From the information that is available[40], it appears that none of these migration flows are currently very large in absolute or relative terms when measured by historical standards of major migration movements. However, there are exceptions for certain countries and locations both in terms of the countries of origin (for example, the cumulative migration to Russia from

[35] Much of the information summarized in this section is gleaned from Hill (2004) and Hill and Gaddy (2003). A major study on migration in Europe and Central Asia is under preparation at the World Bank and, once completed, should throw considerably more light on the issues tentatively explored in this section. 41 Irinnews, "Central Asia: Special Report on Labor Migrants in Russia," 13 July 2004.

[36] Some non-Russians from the West, such as German settlers, were invited to various parts of the Tsarist Russia and then further resettled, mostly in Central Asia, under Stalin (Janssen 1997). There was also settlement of significant numbers of non-Russian settlers from the East, especially Koreans in Central Asia (Diener 2004).

[37] There were also significant transpacific migration flows from Asia to the US (Min 2002).

[38] A substantial number of people with Kazakh origin also resettled from China into Kazakhstan. [referenceSource to be added]

[39] There are of course other migration flows not shown in Figure 33, particularly from Africa to Western Europe.

[40] E.g., United Nations, *International Migration 2002*, UN Population Division, October 2002; OECD, "Trends in International Migration", 2002, www.oecd.org/dataoecd

the Kyrgyz Republic and from Tajikistan has been estimated to represent almost 10% for Kyrgyztan and up to 18% for Tajikistan)[41] and in terms of certain locations of the receiving countries (certain parts of Moscow, for example, are heavily populated with Central Asian migrants, just as certain parts of Berlin house large concentrations of Turkish immigrants).

Looking ahead, one can project that there will be increasing pressures for larger transcontinental migration flows in Eurasia for two main economic reasons:

- Population pressures, especially in South Asia and to some extent in East Asia, will remain relatively high, while in Europe, the CIS and Japan populations will stagnate or even decline (see Figure 4). The latter set of countries with aging populations will to some extent have to draw on the labor supply of younger populations of the former countries if they want to avoid serious imbalances between their working age and old-age populations.
- At the same time, income and wage differentials will remain very significant between the industrialized sub-regions and the developing sub-regions, even as with more rapid economic growth in the latter, these differentials will become somewhat less severe over time.

At the same time, restrictive labor market conditions and migration policies, grounded in the economic, cultural and political realities of the potential receiving countries, will act as serious barriers to labor mobility across borders in Eurasia. This in turn may lead to countervailing capital flows and relocation of jobs, including through progressive outsourcing, to the cheaper labor areas of Eurasia. Some fears of this are already prevalent today. For example, in the new EU member countries, such as Hungary, there are considerable fears that multinationals, who had originally located their production facilities in Central Europe due to relative labor cost advantage, will now move their plants progressively to Asia, especially India and China. The current tensions in Europe around this dilemma – admitting more migrants or losing more jobs – is already a political reality today. All indications are that it will become more pronounced, as the distances across the Eurasian super-continent effectively become shorter and shorter.

6. Communication and Knowledge Sharing

One of the key factors in shrinking distances has been the development of modern communication and information technology. The most important element has been undoubtedly the development of the internet and internet connectivity. Eurasia is no exception in this regard. Figure 35 shows the degree of internet penetration and growth in access for different sub-regions in Eurasia. Not surprisingly, Europe and Japan have the highest penetration rates, but the highest growth rates are in the other sub-regions, albeit from relatively low levels. Continued rapid growth in connectivity can be expected, as there have been significant improvements in the super-continents coverage by communications satellite footprints. Special programs have been put in place to support connectivity in particularly poorly served sub-regions, and institutions and programs have developed to provide access to world-wide knowledge, communication and learning. For example:

- The "Virtual Silk Highway Project", which has been organized, with the support of the NATO Science Division and other donors and institutions, provides internet access to the South Caucasus and Central Asian CIS countries[42]. By making available satellite access (see Figure 36) and providing support for the development of country-based networks of internet providers the project is designed to increase information access in these land-locked countries.

[41] Irinnews, "Central Asia: Special Report on Labor Migrants in Russia," 13 July 2004.

[42] See the website http://www.silkproject.org/

- The World-Bank sponsored Global Development Learning Network (GDLN) has established learning centers in most of the countries of the Eurasia Region (and in the rest of the world), with video and internet access around the globe that permits and supports distance learning and conferencing activities on a significant scale[43]. They can serve for global, regional and sub-regional communication and learning activities.
- The "Global Development Network" serves as a global umbrella organization for regional networks of development research institutions around the globe, among them networks in Europe, the CIS, and East and South Asia[44].
- The "Development Gateway" and its country and regional internet portals assure instant access to country-specific, regional and global knowledge and communication[45]. For Eurasia of particular interest is the "Central Asian Gateway" which serves as a portal for sub-regional information exchange and cooperation[46].

[Figures 35 and 36]

These are just some of the many examples of how modern IT technology affords instant access to information around the globe and around the huge Central Asia super-continent. Of course, IT technology permits improved communication in many other ways that will help integrate Eurasia. For example, it permits more efficient customs clearance for transit traffic by electronic information sharing among border posts within and across countries (as for example in the previously cited project for trade and transit facilitation in South East Europe). Private enterprises, among them banks, transport companies and others engaged in transnational business, will of course make use of modern IT facilities in an ever expanding way. As connectivity increases throughout the Eurasian region, huge geographic distances will matter less and less.

7. The Institutional Infrastructure and Politics of Regional Cooperation and the Future of Regional Integration in Eurasia

The preceding sections have documented intensifying trends towards integration of economic activity and communication across Eurasia. Despite these trends, there is currently no overarching institutional framework for regional cooperation, nor should it be expected that there will be one soon. However, overlapping initiatives for sub-regional cooperation and integration are expanding throughout the region. These are both a result of the increased economic integration and a factor driving closer integration.

Here are some prominent examples of regional cooperative institutions, none of which however is all-encompassing for Eurasia as a whole:

- ASEM (the Asia-Europe Meeting) is the largest group with 39 members, encompassing the (now-enlarged) EU members, all ASEAN countries and China, Japan and South Korea; CIS and South Asia are not members (see Figure 36);
- The European Union (EU) with 25 members is the most integrated sub-regional grouping, and with its planned further accessions in South East Europe will further increase its reach. The EU's

[43] See the website http://www.gdln.org/index.html

[44] See the website http://www.gdnet.org/about_gdn/

[45] See the website http://home.developmentgateway.org/

[46] See the website http://www.cagateway.org/

"Neighborhood Policy" extends to six CIS countries as well as a number of North-African and Middle Eastern countries.

- The CIS is a loose assembly of 13 republics of the Former Soviet Union.
- Various smaller sub-regional groupings involve various members of the CIS and some of their Eurasian neighbors; among them perhaps most notable are the Shanghai Cooperation Organization (SCO) with China, Russia and four Central Asian members (Turkmenistan is not a member), the Central Asia Cooperation Organization (CACO) with the same membership as SCO minus China; the Economic Cooperation Organization (ECO), which includes the five Central Asian countries plus Afghanistan, Azerbaijan, Iran, Pakistan and Turkey.
- Various East and South East Asian groupings, especially ASEAN and SAARC (see Figure 37).
- In addition, there are various regional groupings supported by or involving multilateral institutions, such as the UN regional economic commissions for Europe (ECE) and Asia (ESCAP), the European Bank for Reconstruction and Development (EBRD) and the Asian Development Bank (ADB). They, as well as the World Bank, have in recent years become increasingly active in supporting sub-regional cooperation and integration initiatives. The Greater Mekong Subregion (GMS) and the Central Asia Regional Economic Cooperation (CAREC) initiatives are prime examples of sub-regional cooperation efforts supported by multilateral institutions, such as the ADB. Indeed, most aid donors active in the developing countries of Eurasia have now designed sub-regional approaches and strategies in key sub-regions (especially for Central Asia).

[Figure 37]

Many of these sub-regional institutional frameworks do not appear to be operationally focused, in terms of supporting, funding and implementing specific programs and projects designed to support the effective integration of the sub-regions or to address key issues of Eurasia-wide concern (such as integration of the transport, transit, and energy infrastructure and regulatory frameworks). However, these interlocking forums do provide for regular contact and exchange at heads-of-state and at ministerial levels. This itself helps to build trust, smoothes key bilateral relations, and over the long term probably supports selected initiatives that help with sub-regional and even Eurasia-wide integration.

This political and policy dialogue at the highest governmental level among the countries of Eurasia is important not least because it may help answer a key question about the future of cooperation and integration in Eurasia: Will the unquestionable gains from economic integration and the increased interdependency, as well as a shared need for economic stability and prosperity among Eurasian countries drive increased political cooperation and peaceful coexistence in the region? Or will long-standing political tensions and new competition for scarce resources, especially for energy, create regional instability and divisions and, with this, serious barriers to the quick economic integration of Eurasia?

There certainly are plenty of potential sources of conflict within the region: he long-standing conflict between India and Pakistan; the North-East Asian tensions around North Korea, competition between China and Japan, and the simmering tension between China and its Province of Taiwan; resurgence of conflicts in the South Caucasus and new conflicts in Central Asia; competition between China and Russia; difficulties with further EU enlargement, especially around Turkey's accession, and problems with the EU's strict control over its borders. Add to this the unstable situation in Afghanistan, the persistent tensions over Iran and the deep-seated and violent conflicts of the rest of the Middle East, which can spill over in many different ways into the Eurasian political scene. All these might destabilize important parts of Eurasia with spill-over effects for the rest of the region and even globally.

What is notable is that there have been increased efforts within Eurasia to address many of these issues: The EU has become more actively engaged in its dialogue with key regional players, including China, Russia, Iran, and in the context of key sub-regional initiatives (ASEM, EU Neighborhood, the TACIS Central Asia regional strategy, etc.). Both China and Russia have shown increased interest in and engagement of Central Asia, both with the apparently consistent goal of supporting the emergence of a stable and prosperous sub-region there. China and Russia, as well as other regional players, have been supportive of the post-9/11 engagement of the US and of NATO in Afghanistan with the goal of a peaceful, democratic and prosperous nation. India and Pakistan not only show signs of wanting to settle their long standing Kashmir conflict, but also are increasingly looking to cooperate over access to the energy sources of Iran, Central Asia and Russia. ASEAN and China in November 2004 agreed to closer cooperation in moving towards the creation of a free trade zone between them[47]. These tendencies towards peaceful cooperation seem to bode well for a stable long-term future for Eurasia and for continued economic integration.

8. Conclusions and Policy Implications

While the evidence on Eurasian economic integration that we have been able to assemble so far remains partial and fragmentary, we come to the conclusion nonetheless that over the last 20 years there has been a remarkable process of establishing ever closer and more complex economic links throughout this enormous region. No doubt these trans-Eurasian links are not nearly as tight as they are across the Atlantic or the Pacific. But the trends are unmistakable: for better or worse – and mostly for the better we believe – economic integration in Eurasia will continue at a fast pace with the potential of catching up in terms of intensity with the economic integration that characterized transatlantic, transpacific and trans-American economic relations. While competition for energy resources and long-standing political tensions may complicate and in some areas slow down this process, we are hopeful that Eurasia will see peaceful and cooperative solutions for these tensions. Ultimately there is so much to gain for all concerned, both within the region and globally. Indeed, we believe the close association of economic integration and political cooperation across the Atlantic and the Pacific over the last 50 years, against the backdrop of many violent conflicts of the past and despite the occasional competition and tension among the partners, are pointing towards a similar outcome in Eurasia[DT1][RTF annotation: This sentence is a bit unclear to me.] as a distinct and hopeful possibility.

What can be done in the policy arena to help bring about this favorable scenario?

- Major investments in transcontinental and sub-regional infrastructure are required to support increased regional trade and communication.
- These investments need to be accompanied by improvements in and harmonization of the policy and regulatory regimes across countries for transit of goods, services and people. Also important are "behind-the-border" reforms, especially improvements in the investment climate, more effective public administration and reduction in corruption.
- Early universal membership in the WTO is preferable to reinforcing the "spaghetti bowl" of (sub-) regional trade agreements.
- Major investments in energy production and transport are needed, but should be matched by cross-

[47] As reported in *China Daily*, 30 November 2004.
http://www.chinadaily.com.cn/english/doc/2004-11/30/content_395778.htm

border agreements on regulation and by measures to improve efficiency of energy use so as to reduce pressures on energy prices and on the environment. Also, region-wide agreements are necessary to address competing claims for access to regional energy resources by key players (EU, China, India, Japan, US).

- There is a need for a serious review of current illicit drug control policies region-wide with a view towards combating or at least better managing the use, production and trafficking of illicit drugs.
- A better understanding and a clear vision are needed for the role of migration in Eurasia as a means to support the long-term stable and prosperous development of the various sub-regions, those with demographic deficits as well as those with population surpluses.
- Private and public networks of knowledge, business and civil society groups should increasingly take a transcontinental view for Eurasia as a whole, rather than clinging to purely country or sub-regional perspectives. Of course this should not be to the exclusion of linking with global as well as trans-oceanic networks.

The key actors in bringing about these needed policy actions are in the first instance the governments of the largest countries in the region. For the immediate future, it is likely that the EU will have to play a lead role in opening up a Eurasia-wide perspective of cooperation and integration. However, for the longer-term, there is no question that the quartet of China, EU, India and Russia represents the key players that need to cooperate together constructively and deliberately in supporting the effective integration of Eurasia. Together they will have to pay particular attention to ensure that the fragile border regions of the South Caucasus and of Central Asia become stable and prosperous parts of an integrated Eurasia; and that the shared problems of an unstable and conflict-ridden Middle East neighborhood and of a poor and fractious Africa to the South are effectively addressed by the world community.

If the key players in Eurasia each take on constructive roles in shaping a common trans-continentally integrated economy, then the US can restrict itself to play a relatively minor, supportive role. Should intra-Eurasian political frictions prevail, then of course a more active role by the US might be needed to help settle such conflicts in a peaceful and least disruptive manner. More generally, for the US it would seem desirable in view of the inevitable growth of China and India as strong economic and political players, and in view of the emergence of a new super-continental economic bloc, to do the following: help develop global economic and political steering mechanisms such as the G-20, elevated appropriately to summit level; and help bind together into a cooperative institutional structure all major players in the emerging, highly integrated but multi-polar world community.

Finally, key multilateral institutions, such as the UN agencies, the World Bank and the regional development banks will need to play a much more active role in helping the regional integration of Eurasia, both at the sub-regional and at the overarching regional level. This will require more cooperation among these agencies; but also within the agencies it will require a clearer vision and programs that cut across the frequently constraining internal bureaucratic boundaries of regional and sub-regional organizational units. There are encouraging signs that this is beginning to happen, but more concerted and effective steps of inter-agency and internal cooperation are needed.

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Figure 1. The Ancient Silk Road

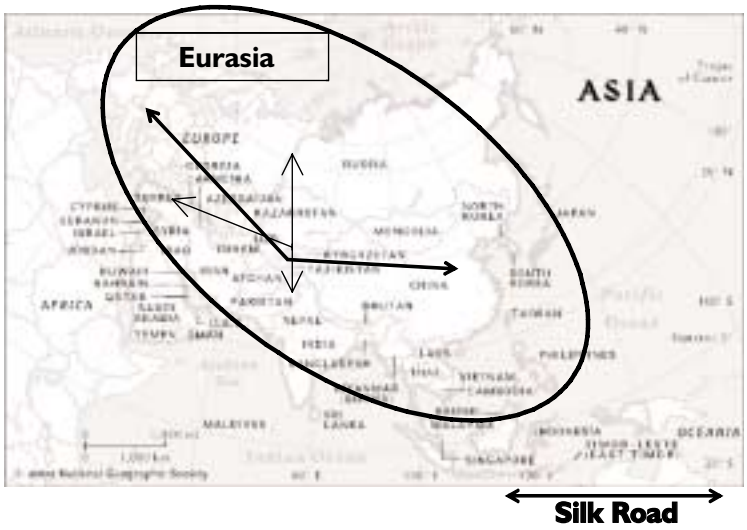


Figure 2. The World of Yesterday (1955-1985)

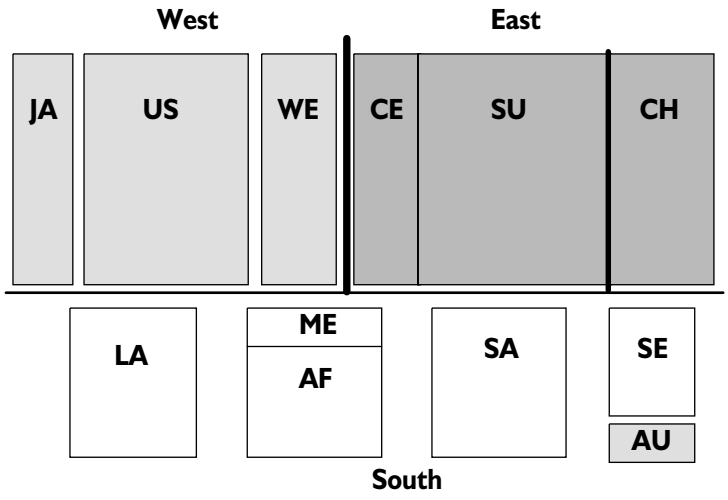


Figure 3. The World of Today and Tomorrow (1990-2020)

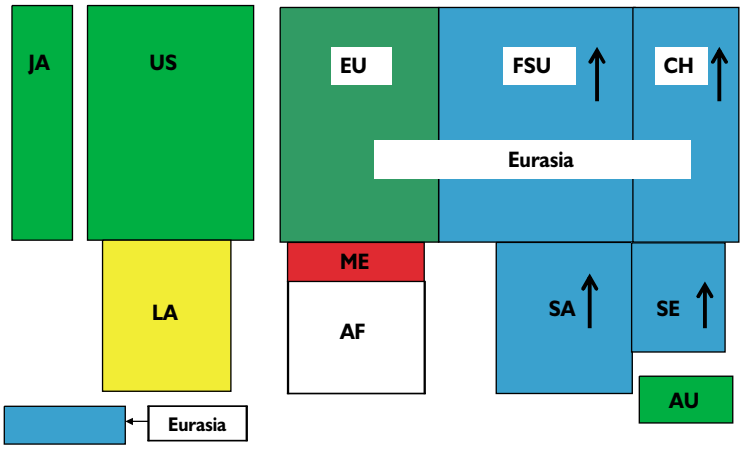
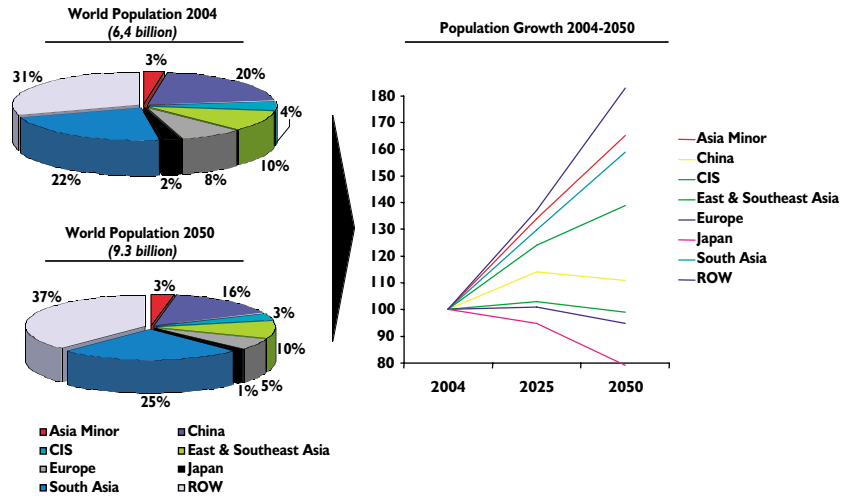


Figure 4. Global Population Growth and Composition



Source: PRB 2004 world Population Data Sheet.

Figure 5. When China's and India's GDPs Would Exceed Today's Rich Countries

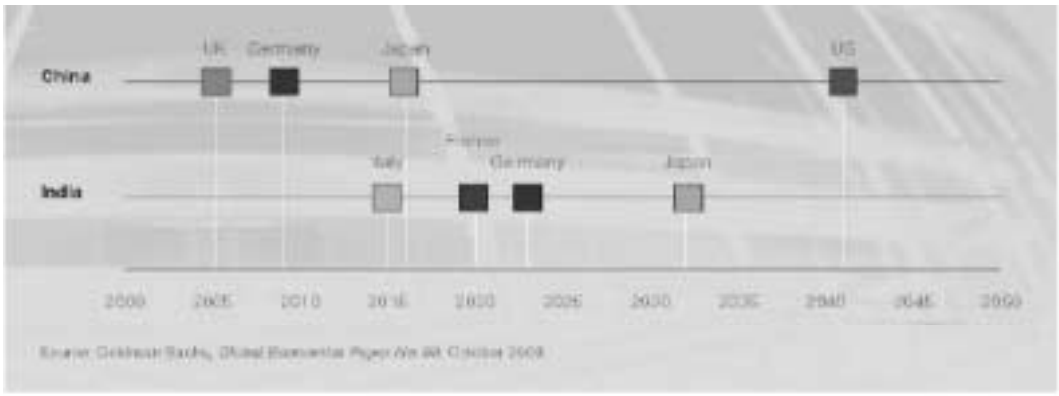


Figure 6. Energy Patterns

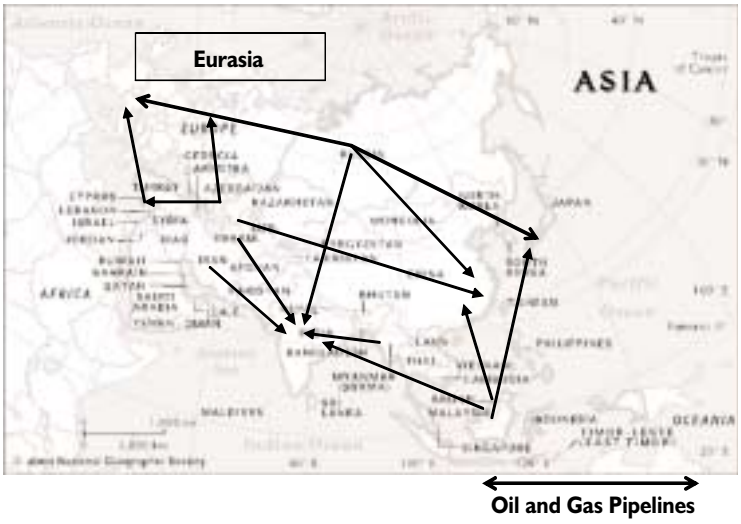
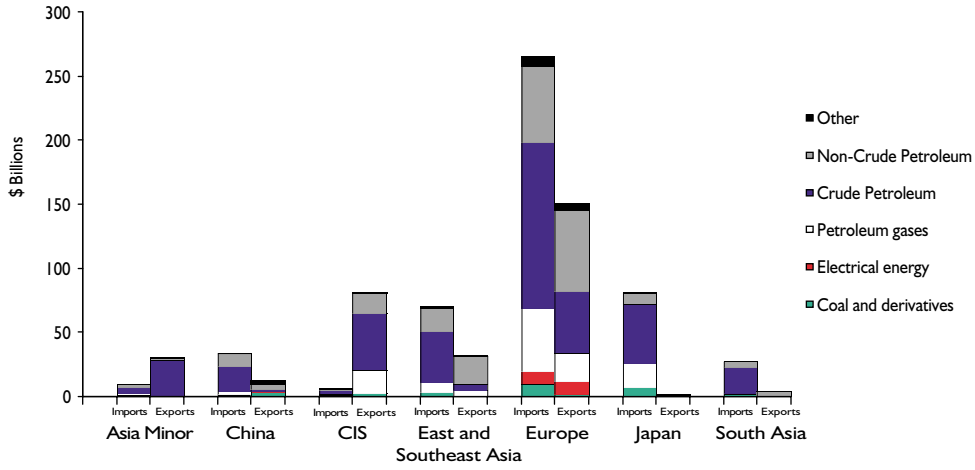


Figure 7. Energy Imports and Exports to/From Eurasian Countries in 2003



Source: UN COMTRADE database.

Figure 8. Major Global Oil Trade Movements, (millions tons)

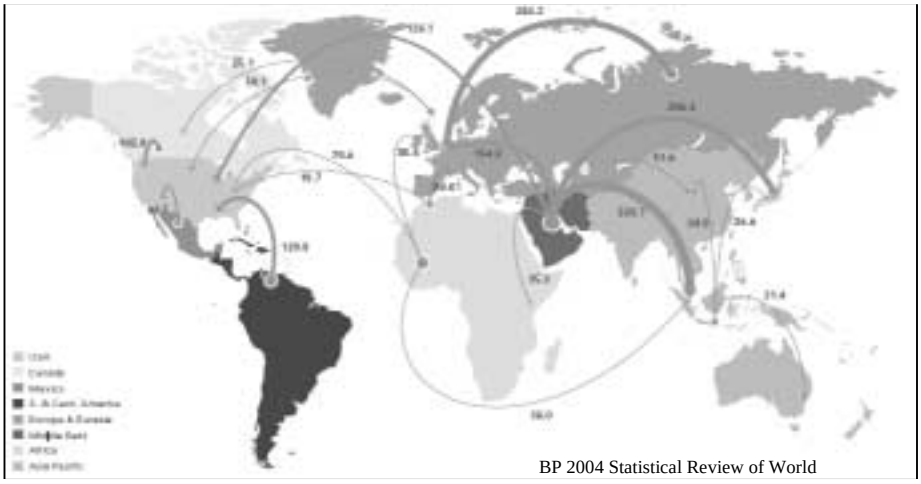
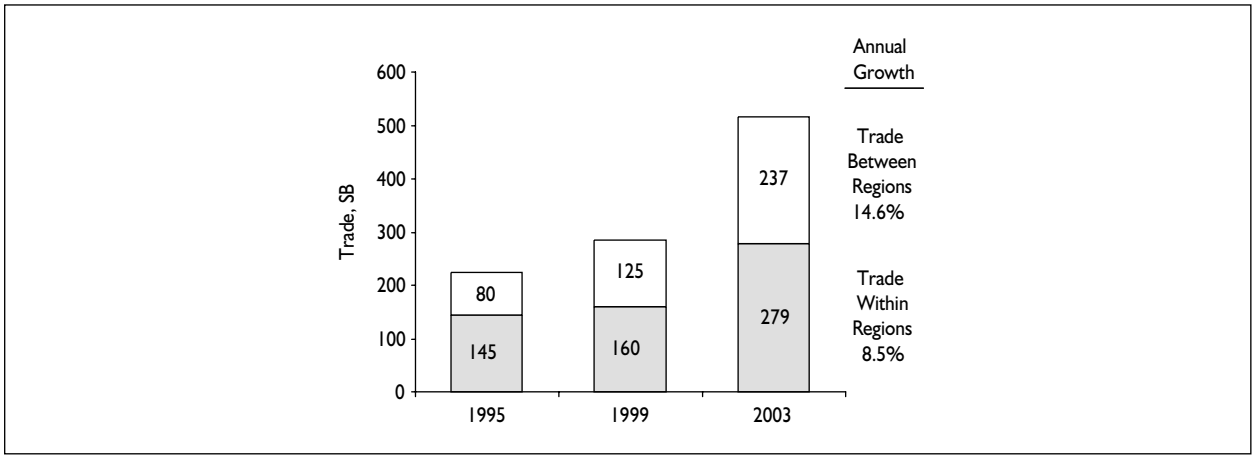


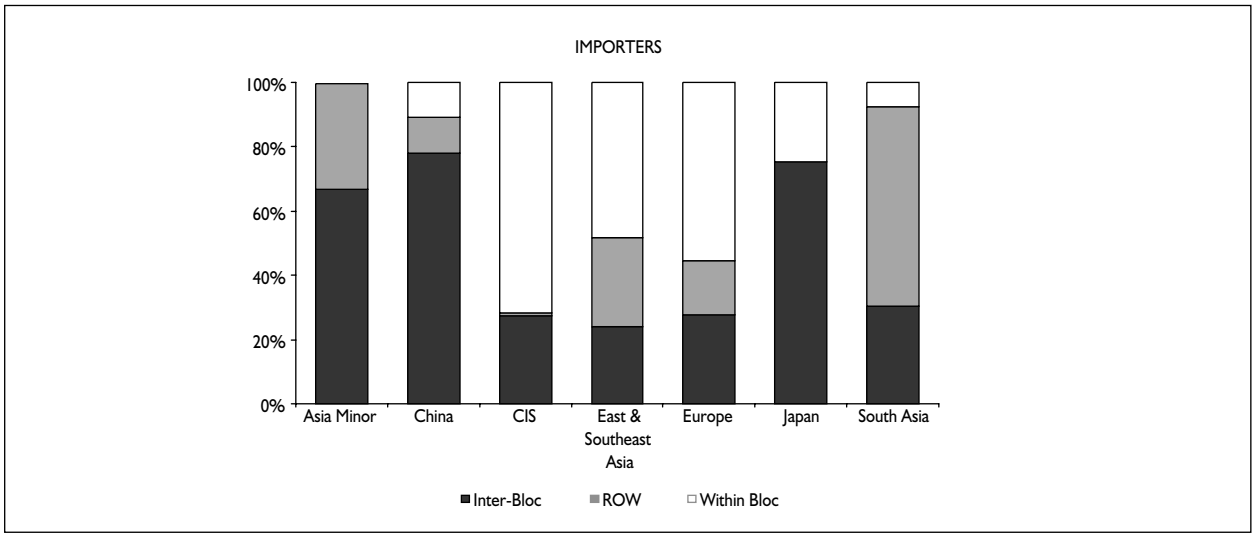
Figure 9. Major Global Gas Trade Movements, (billion cubic meters)

Figure 10. Energy Trade Within and Between Eurasian Regions



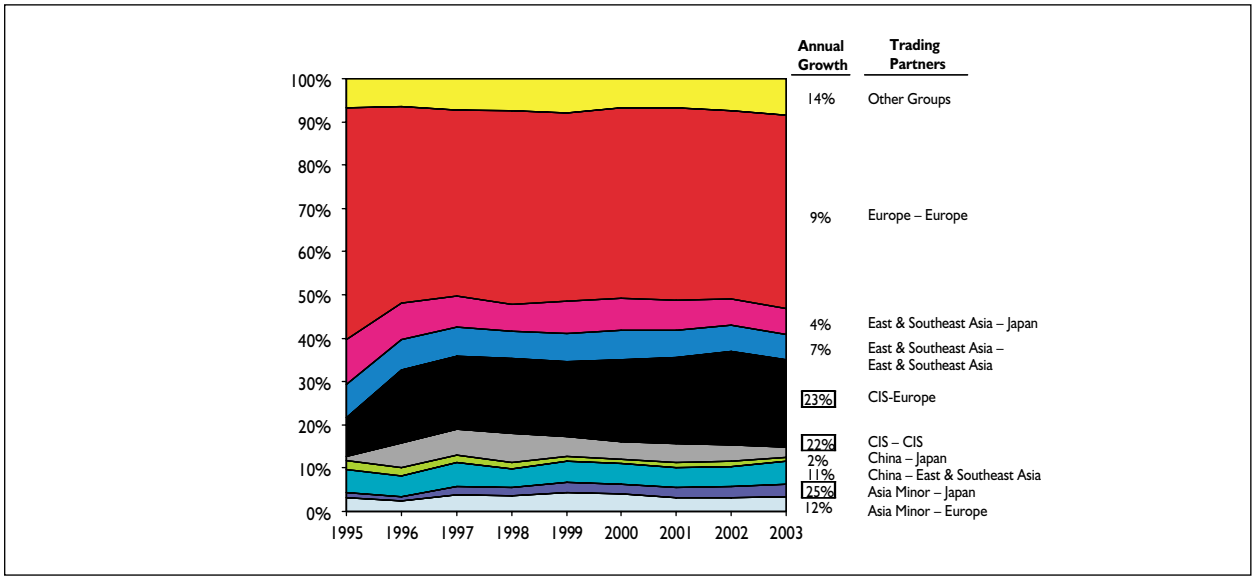
Source: UN COMTRADE database.

Figure 11. Eurasian Energy Imports Split by Trading Bloc, 2003



Source: UN COMTRADE database.

Figure 12. Energy Trade Growth Among Paired Trading Parnters



Source: UN COMTRADE database.

Figure 13. Pan-European Crude Oil Pipelines

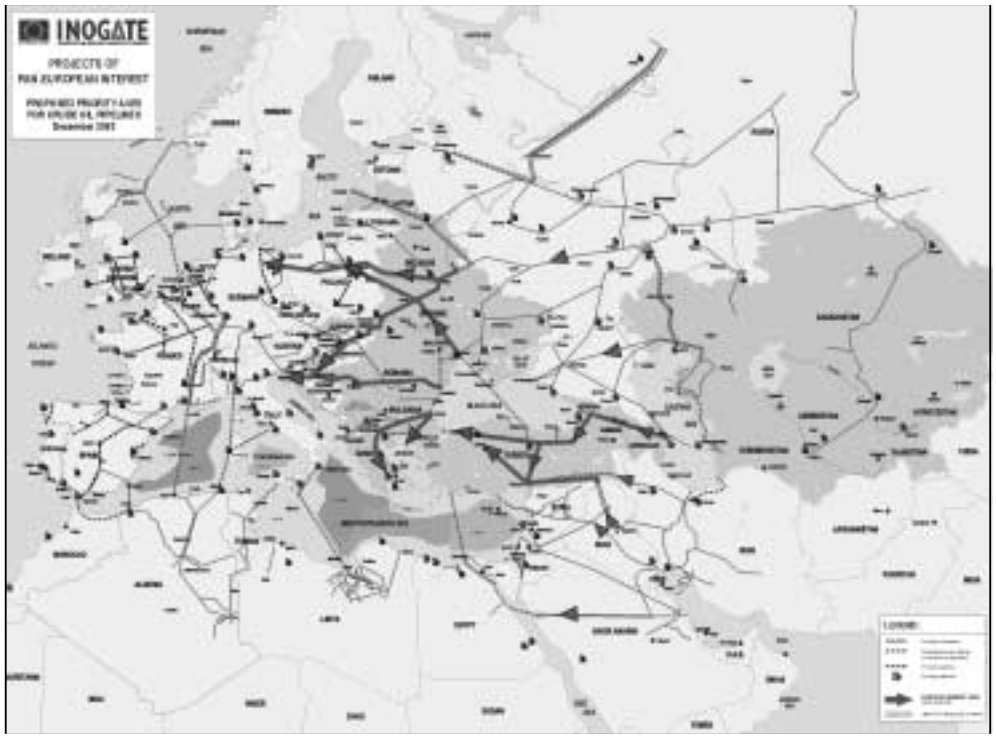


Figure 14. Pan-European Natural Gas Pipelines

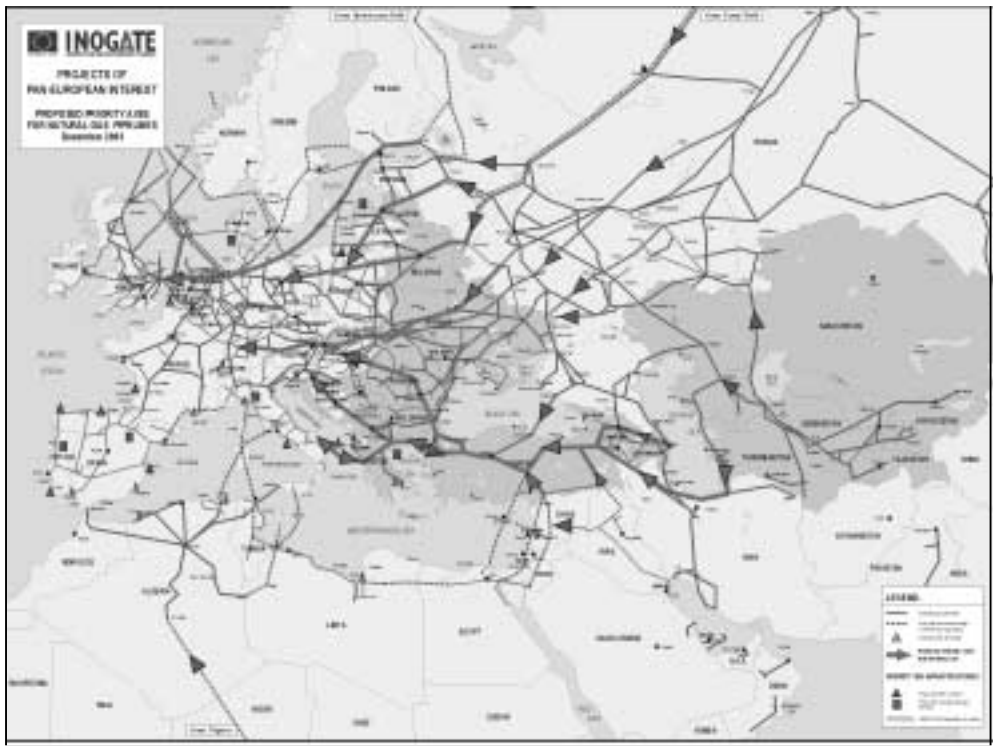
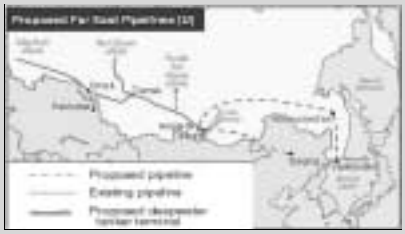
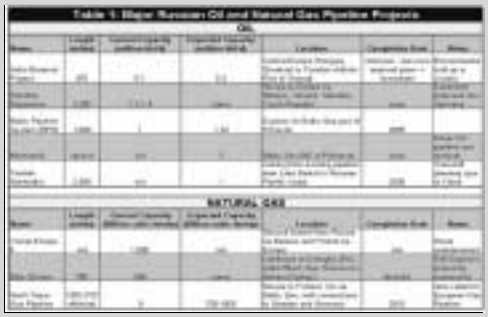


Figure 15. Major Russian Oil and Gas Pipelines and Projects





Source: U.S. Government Energy Information Administration

Figure 16. Central Asian Republics Power Development and Trade Strategy

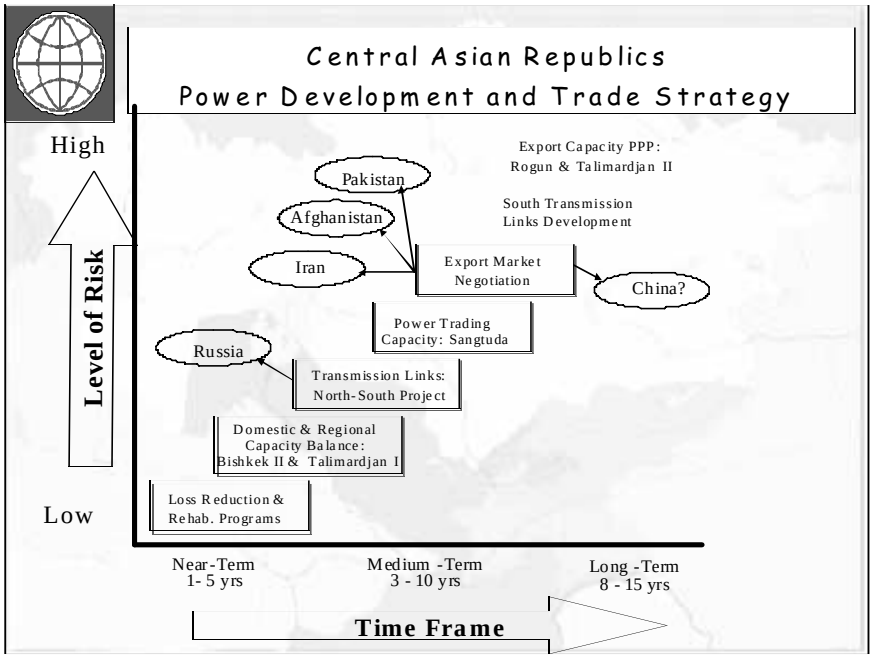


Figure 17. Non-Energy Trade and Transport

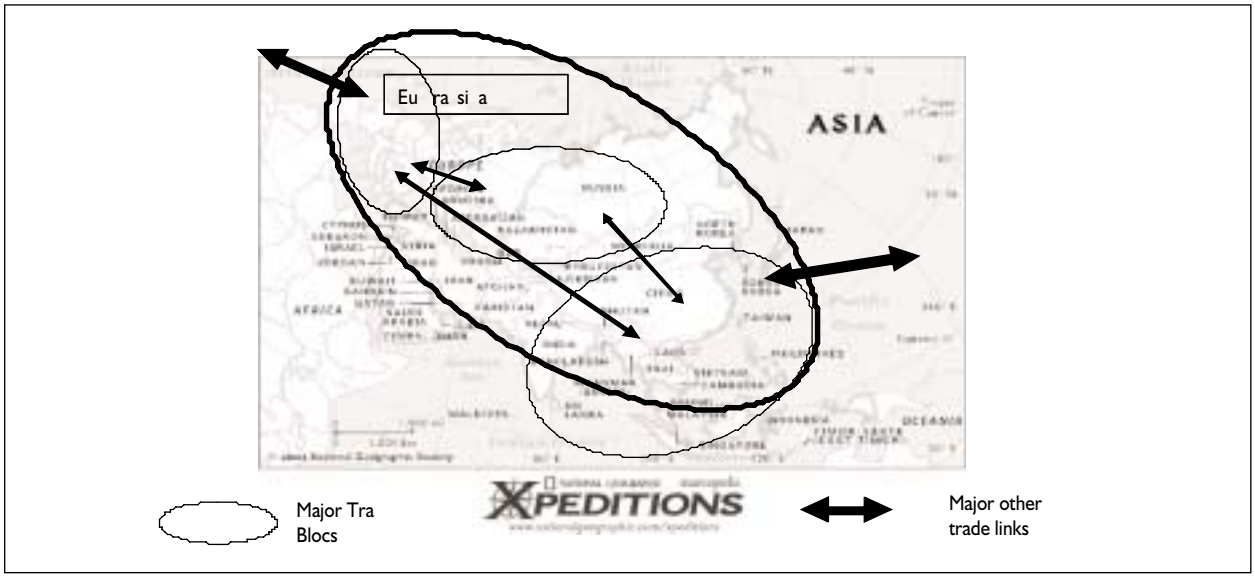


Figure 18. Non-Energy Trade and Transport

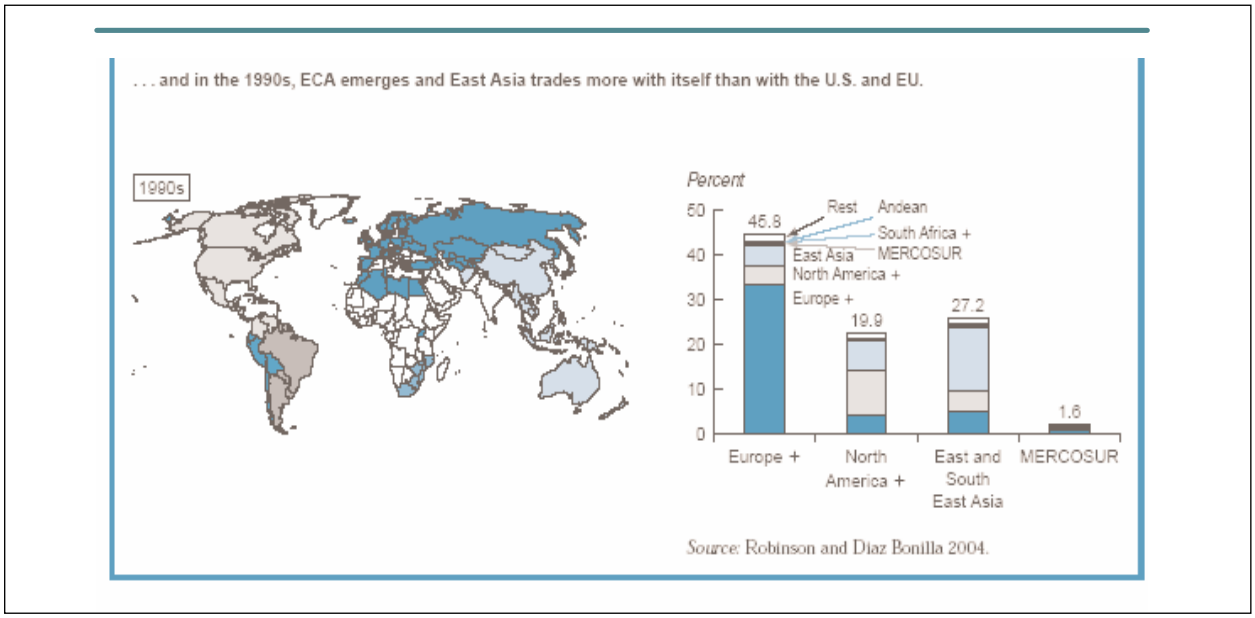
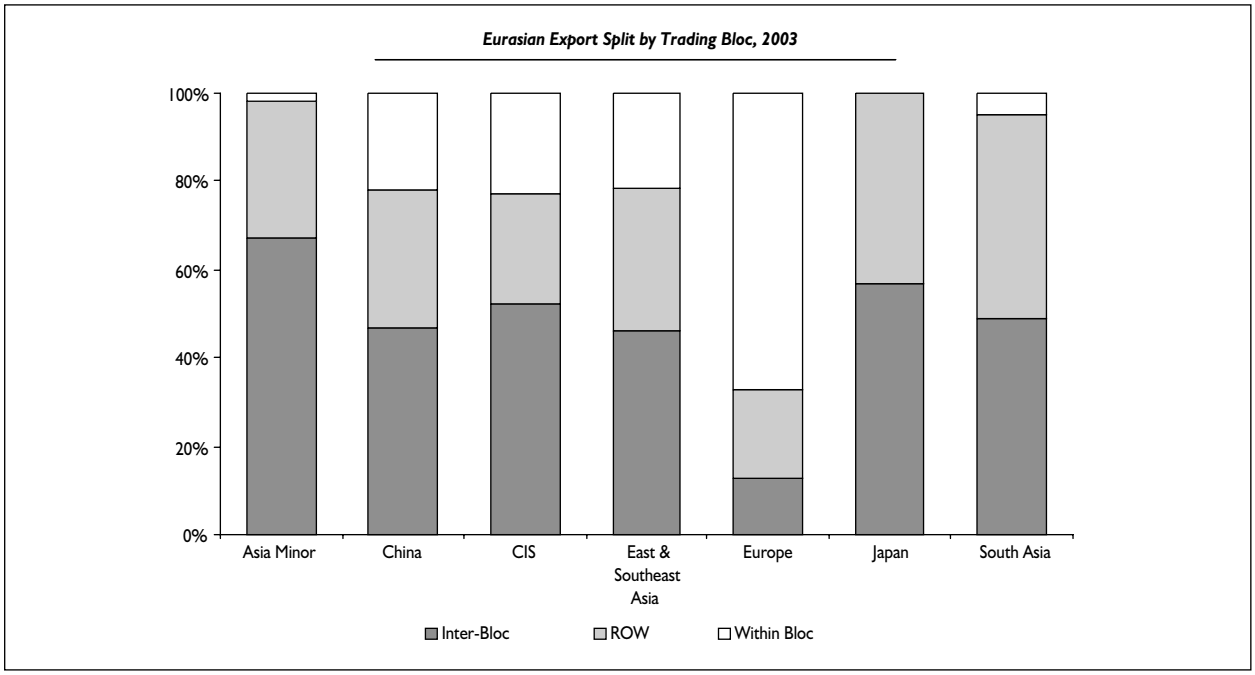
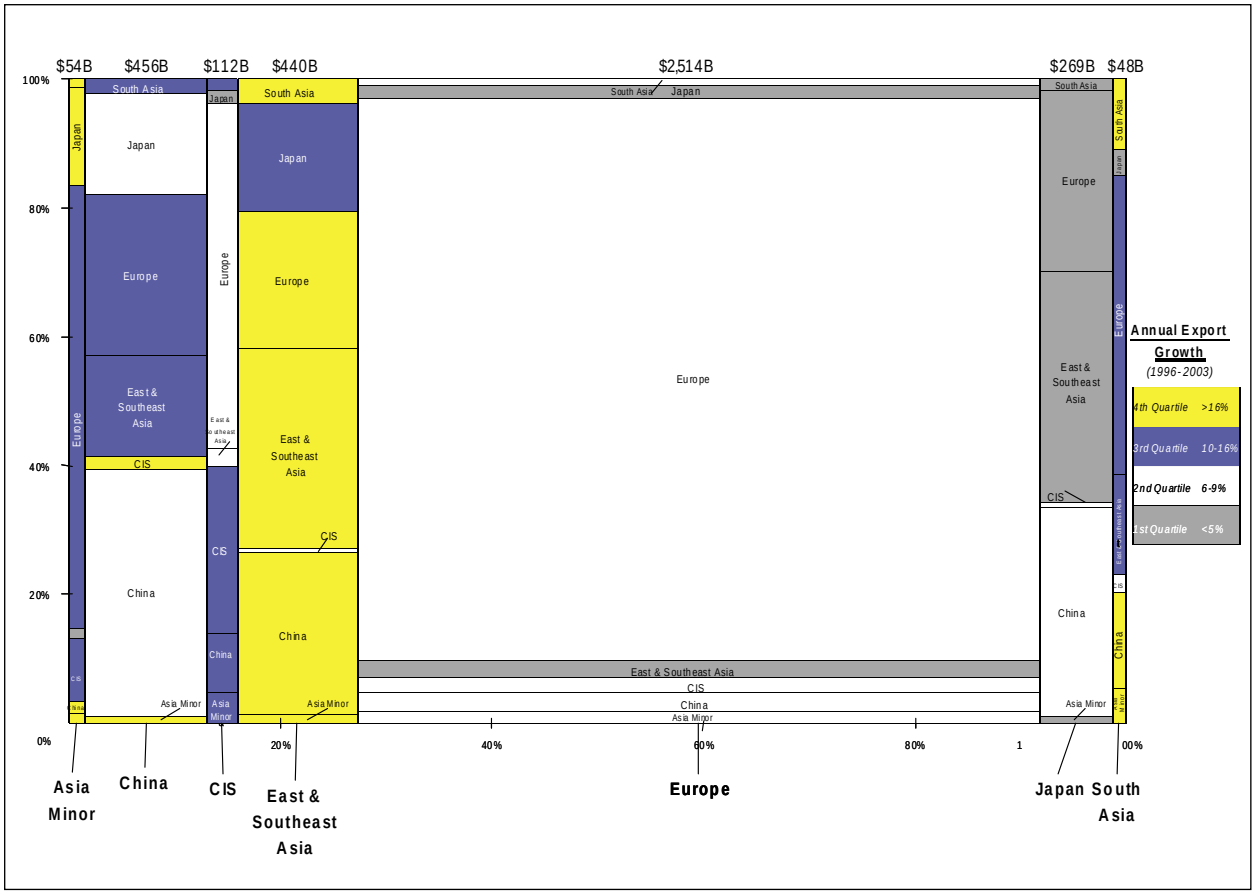


Figure 19.



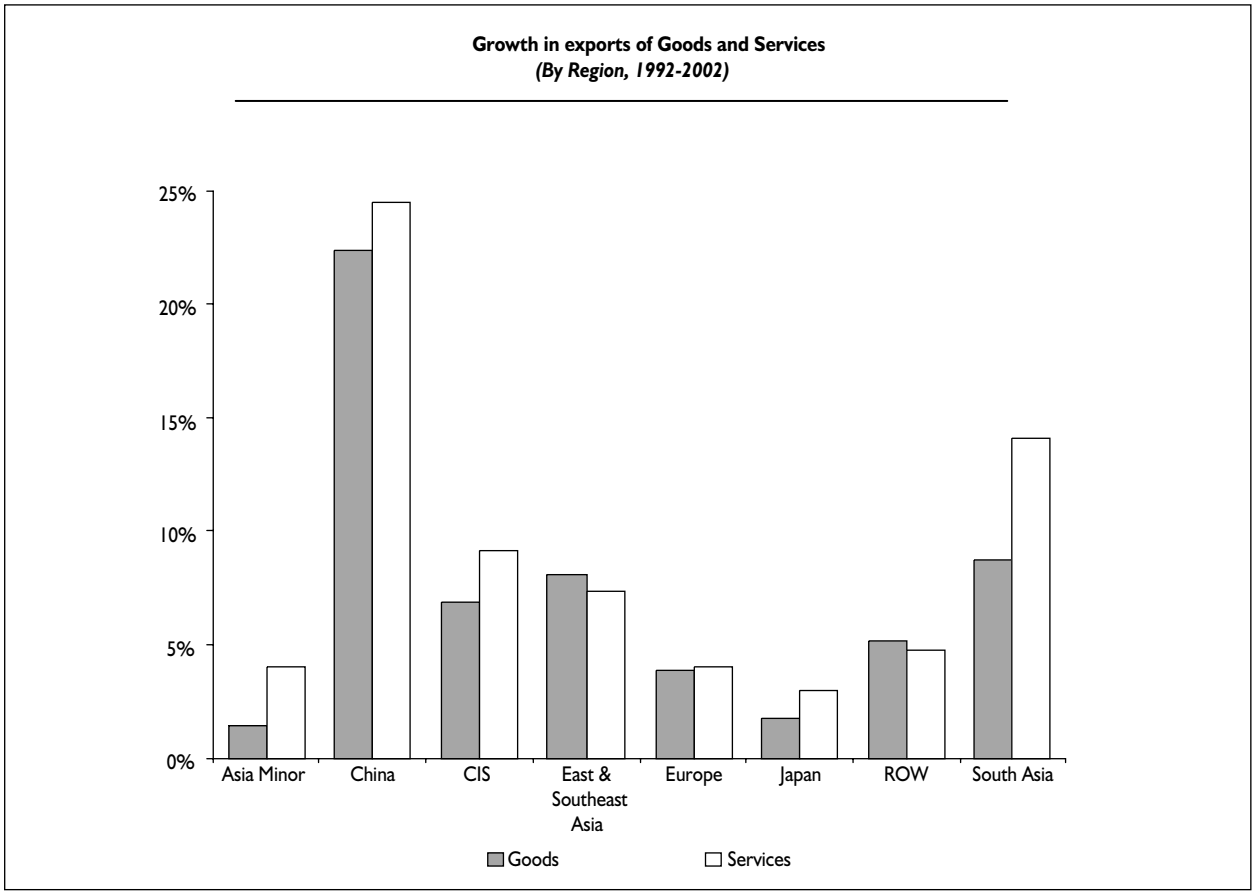
Source: WDI, BoP Data.

Figure 20. Trade Between Eurasian Blocs, 2003



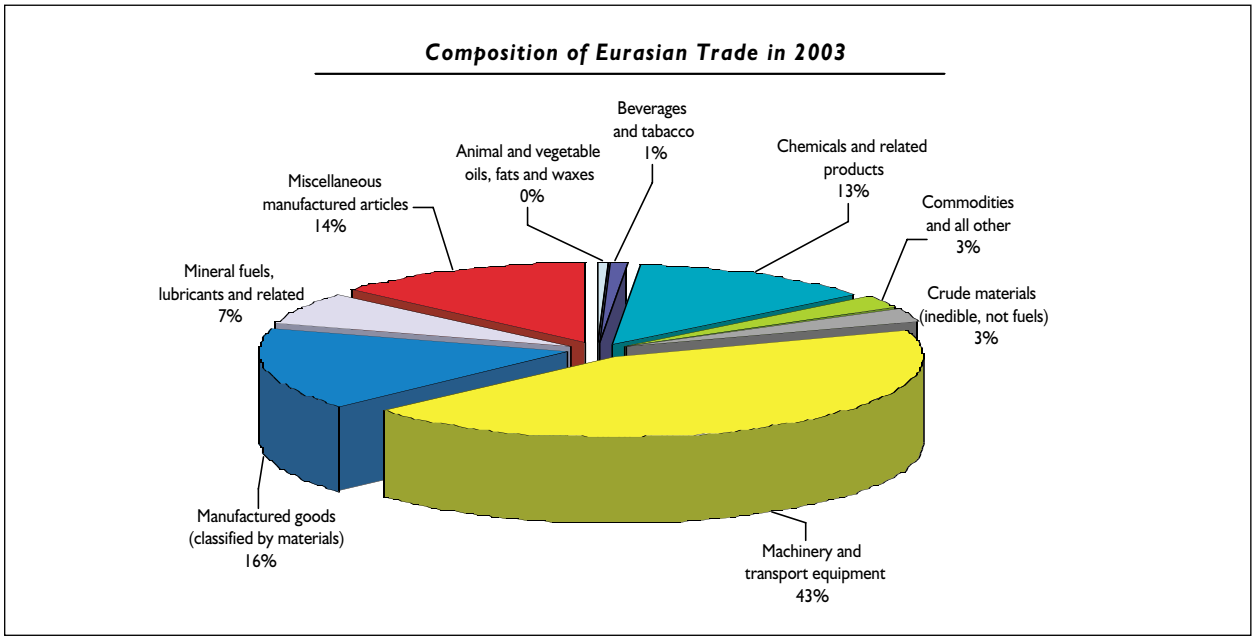
Source: UN COMTRADE database.

Figure 21.



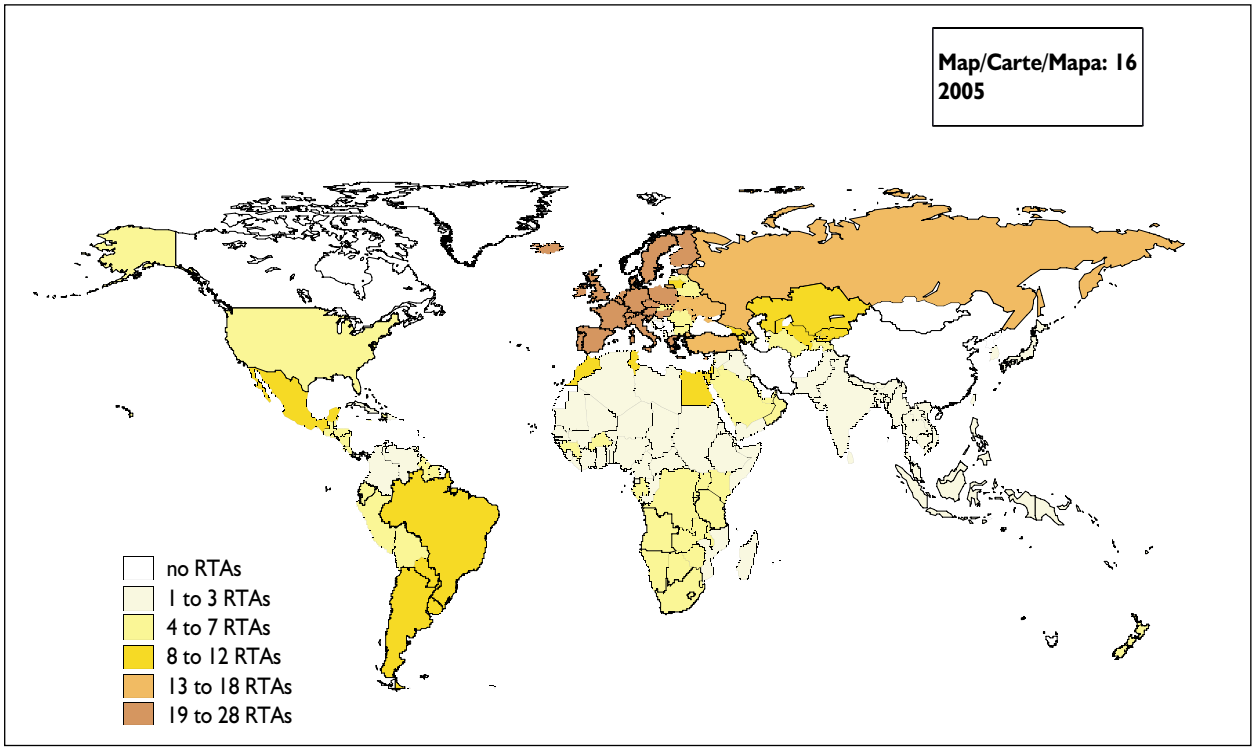
Note: CIS growth figures 1994-2002.
Source: WDI, BoP Data.

Figure 22.



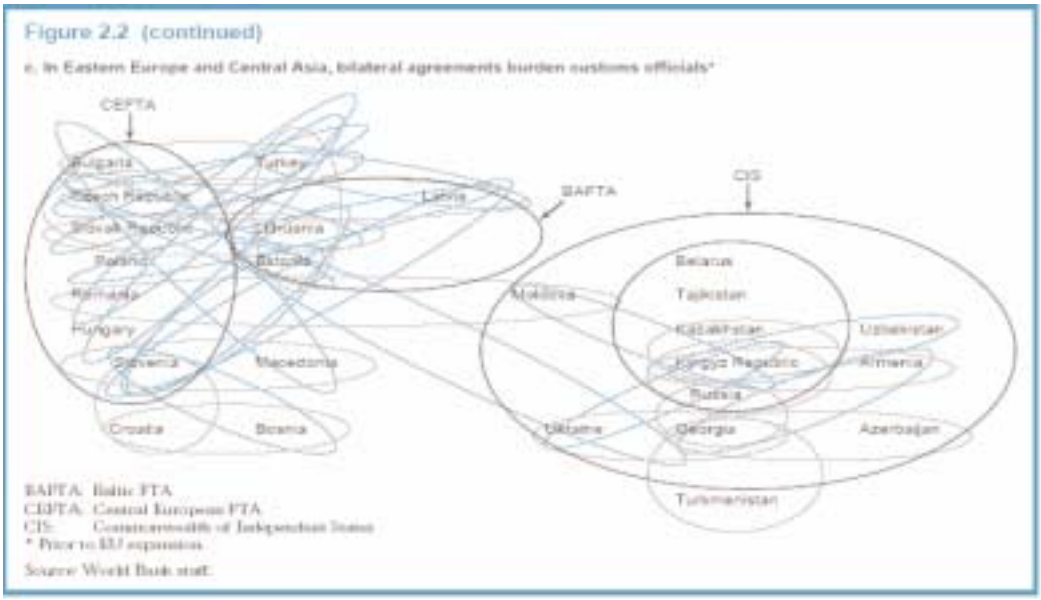
Source: UN COMTRADE database.

Figure 23. Regional Trade Agreements (RTAs) Globally



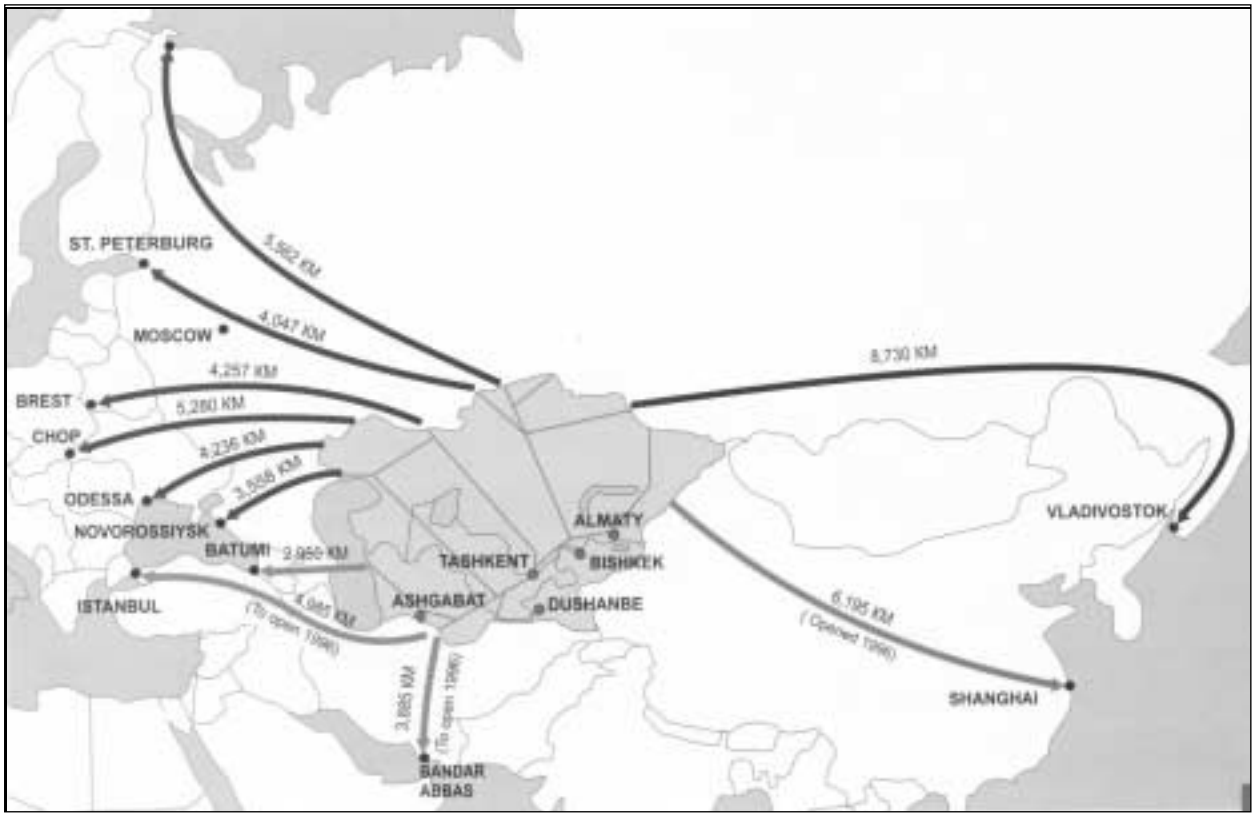
Source: WTO.

Figure 24."RTA Spaghetti Bowel" in Central and South Eastern Europe And The FSU



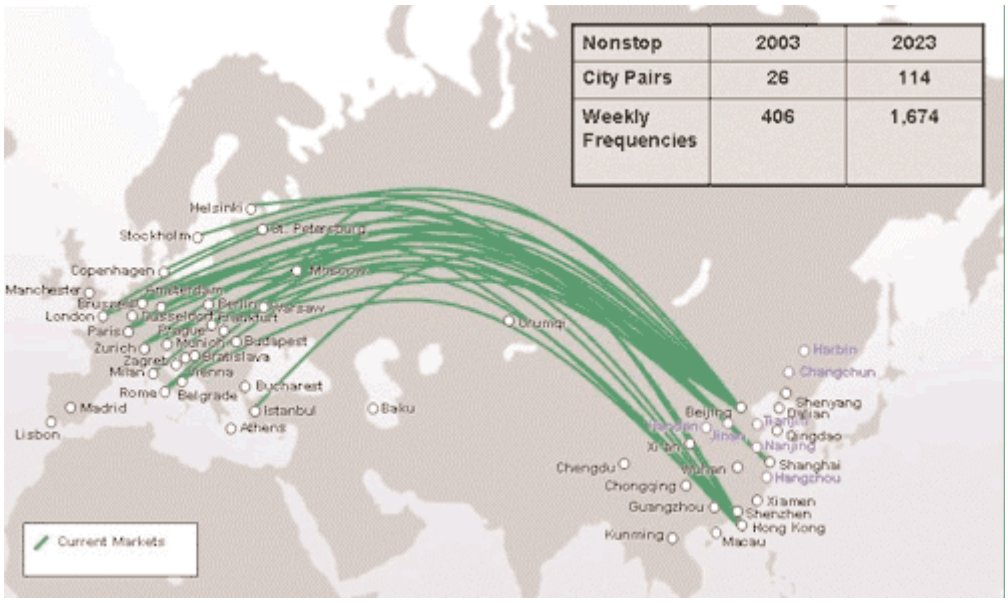
Source: World Bank, *Global Economic Prospects 2005*.

Figure 25. Transit Links of Central Asian Republics with World Markets



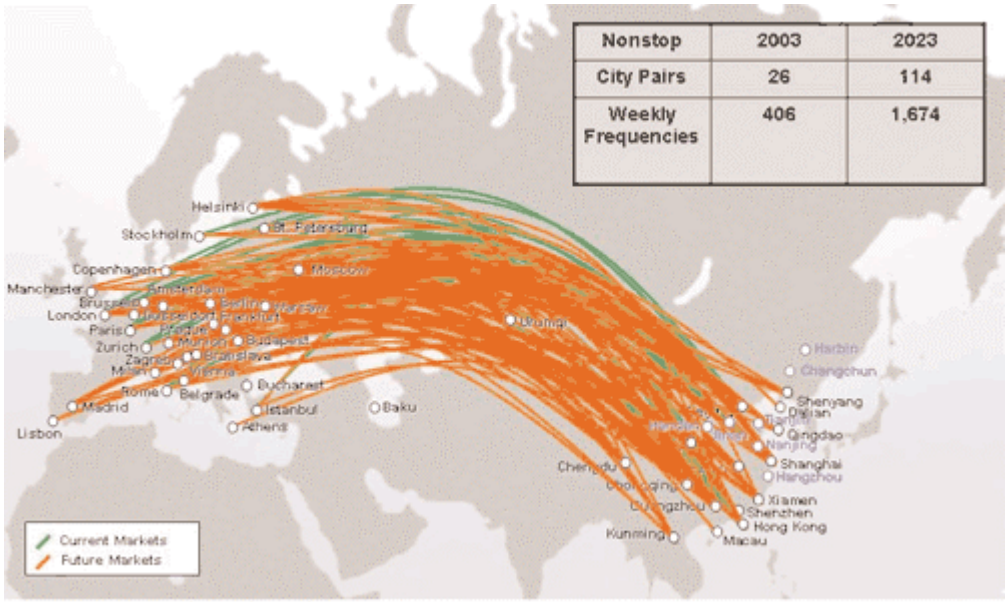
Source: UNESCAP, 2003.

Figure 26. Projected Increase in EU-China Flights 2003-2023



Source: http://www.boeing.com/randy/2005/february.html

Figure 26. Projected Increase in EU-China Flights 2003-2023



Source: http://www.boeing.com/randy/2005/february.html

Figure 27. Global Opium Production, 1990-2003 (metric tons)

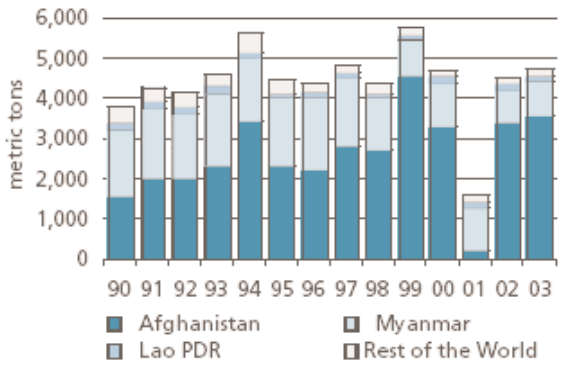


Figure 28. Main Problem Drugs (as reflected in treatment demand), 1998-2002

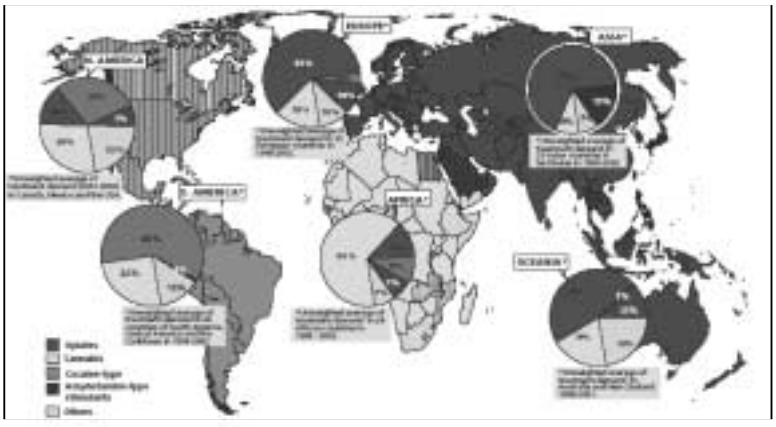


Figure 29. Estimates of the Size of the IDU Population (1998-2003)

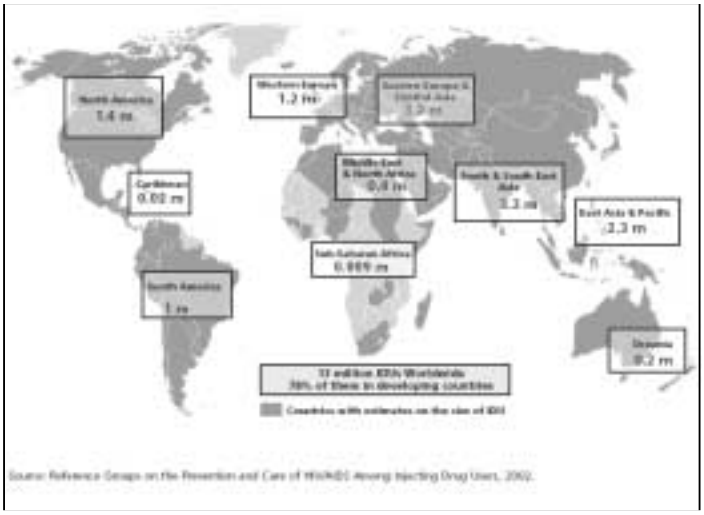


Figure 30. Drug Flows in Central Asia

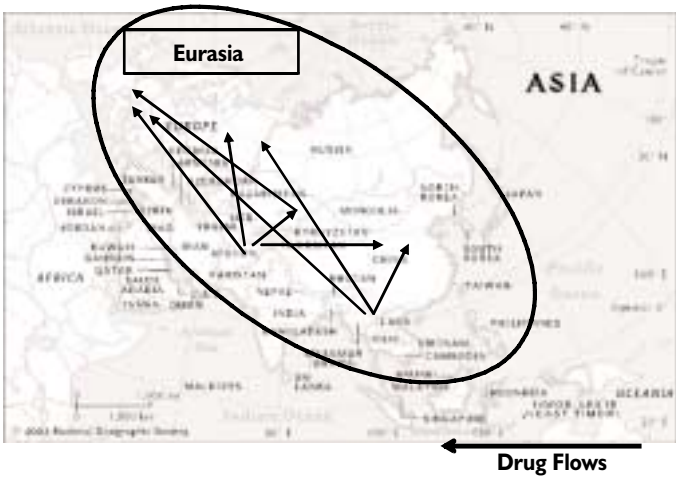


Figure 31. Eurasian Capital Flows

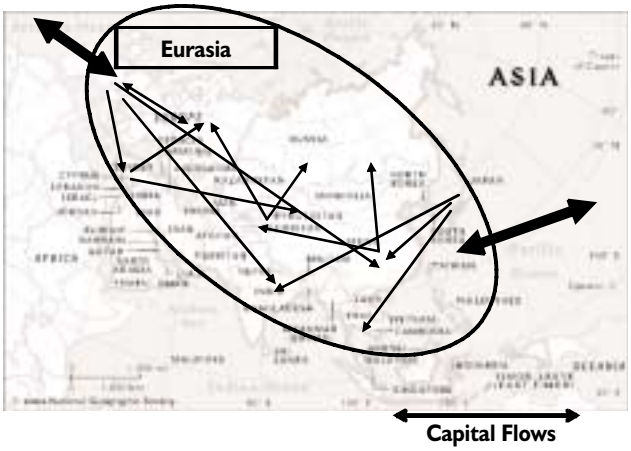
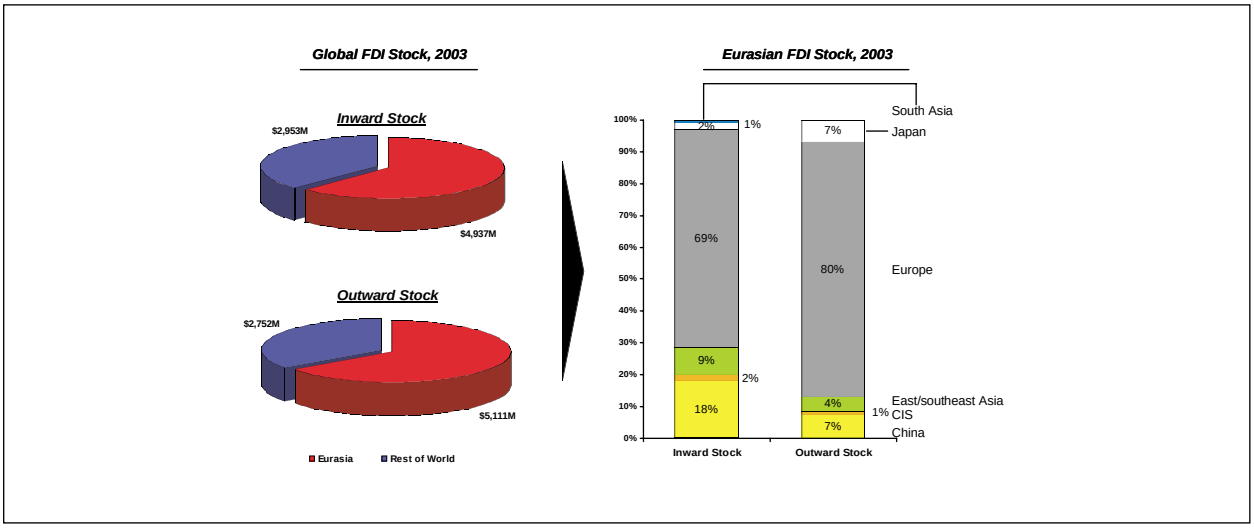
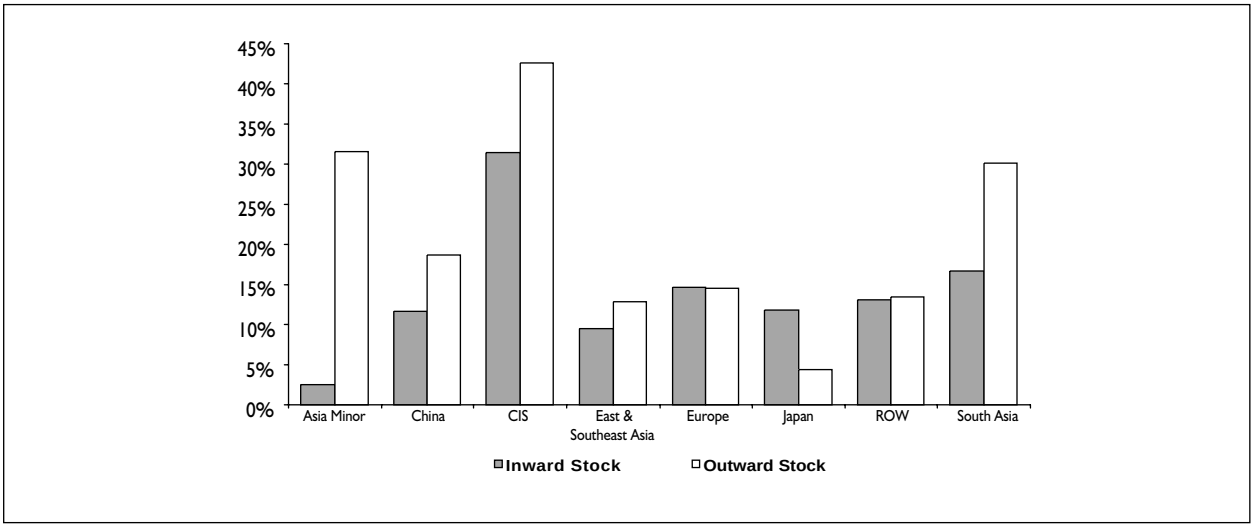


Figure 32. Global and Eurasian FDI Stocks, 2003



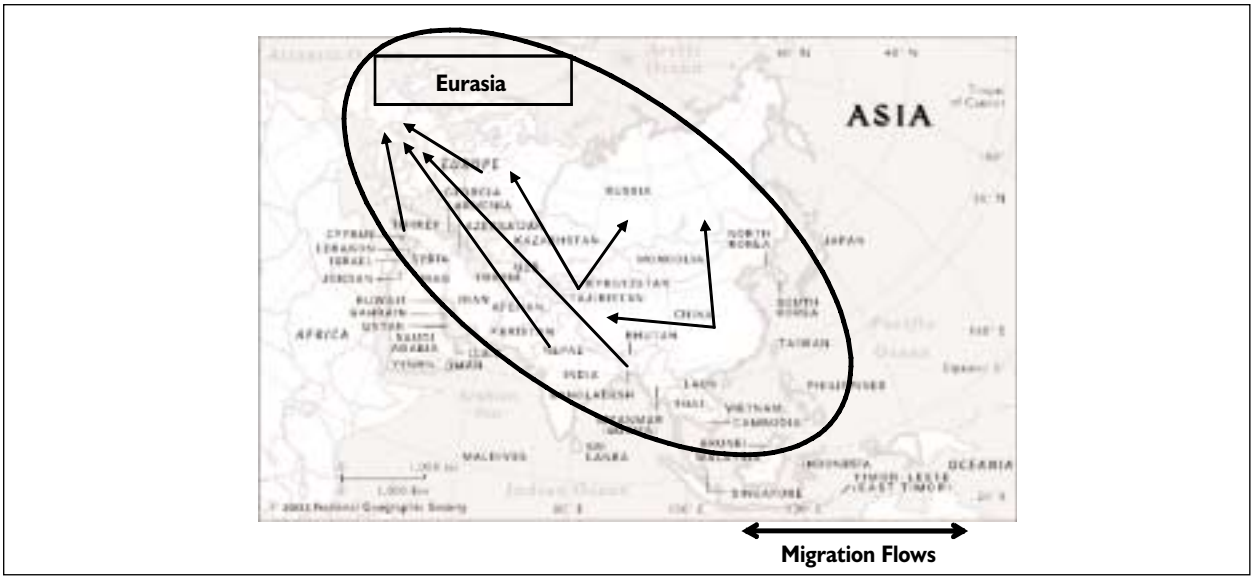
Source: UNCTAD, OECD.

Figure 33. Growth of the FDI Stock by Region, 1995-2003



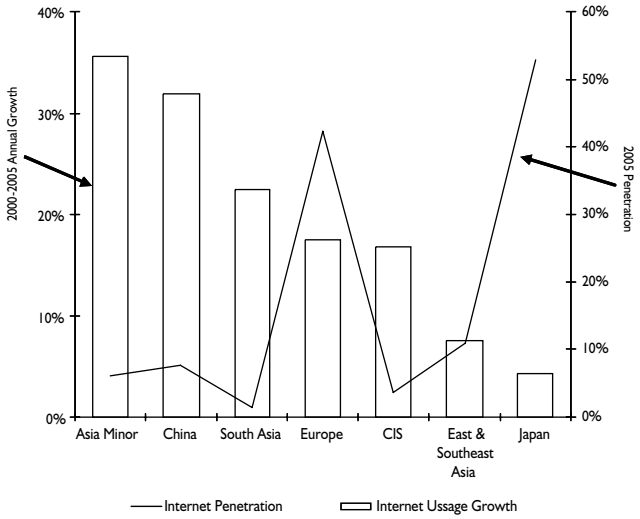
Source: UNCTAD, OECD.

Figure 34. Migration Flows in Eurasia



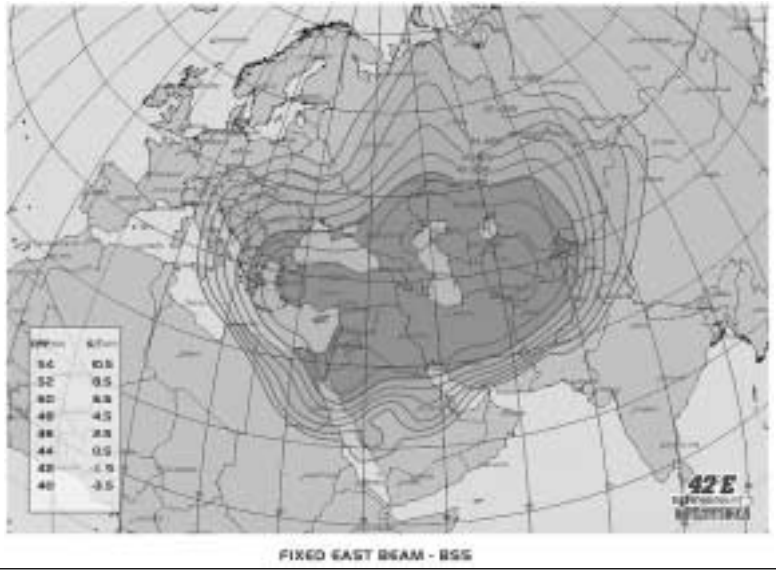
Source: National Geographic

Figure 35. Eurasian Internet Growth and Penetration



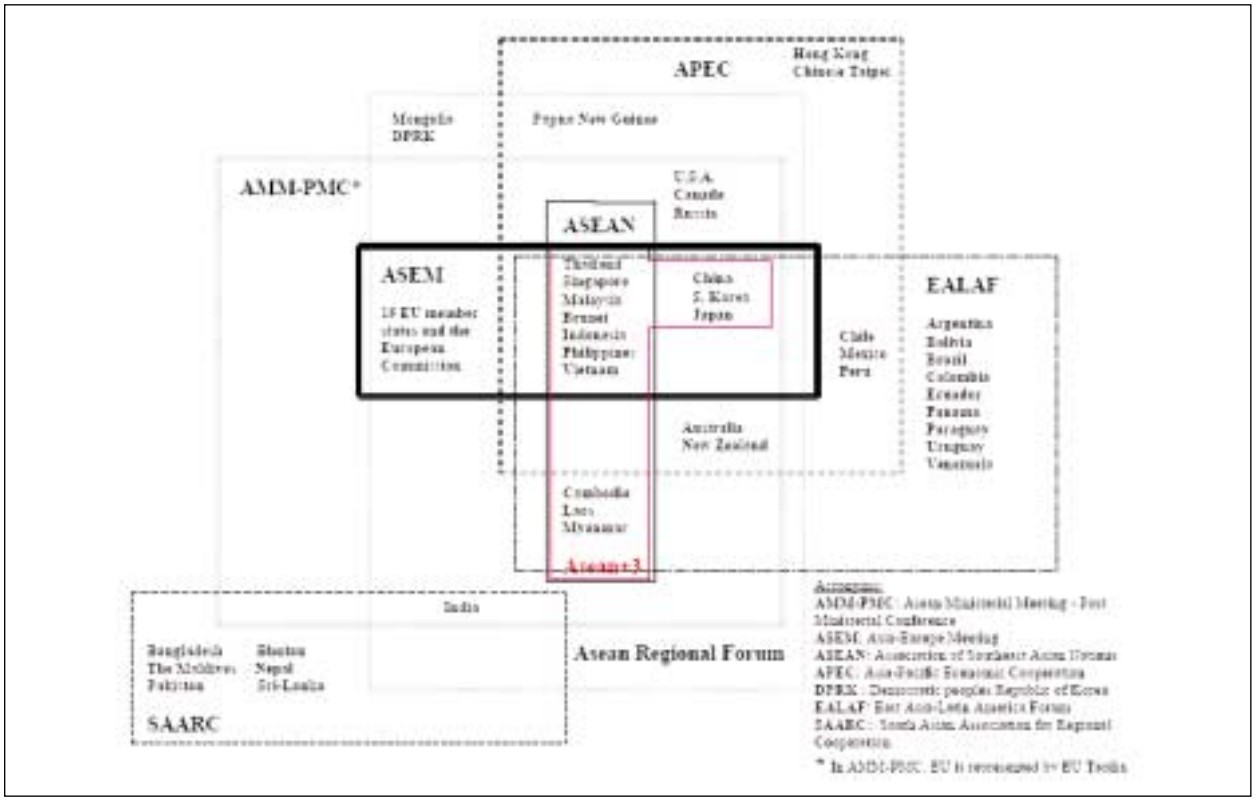
Source: Internet World Stats (http://www.internetworldstats.com).

Figure 36. Virtual Silk Highway Satellite Footprint



Source: http://www.silkproject.org/images/eurasia_east.jpg

Figure 37. ASEM and Other Regional Groupings



Source: http://europa.eu.int/comm/external_relations/asem/asem_process/asem_chart.htm

Table 1. Global Oil Production

Oil

Production*

Thousand barrels daily	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Change 2002 over 2003	2003 share of total
USA	8563	8389	8322	8295	8295	8051	7733	7733	7689	7626	7454	-1.6%	9.2%
Canada	2184	2276	2402	2489	2588	2672	2606	2721	2712	2808	2986	5.9%	3.8%
Mexico	3132	3142	3045	3277	3410	3489	3383	3459	3391	3565	3759	5.8%	4.1%
Total North America	**13880**	**13807**	**13769**	**14052**	**14287**	**14182**	**13678**	**13984**	**13841**	**14048**	**14229**	**1.9%**	**18.2%**
Argentina	630	695	758	823	877	890	847	818	829	806	793	-1.5%	1.1%
Brazil	684	688	718	857	968	1002	1133	1268	1337	1699	1882	3.3%	2.1%
Colombia	458	460	591	635	667	775	829	711	627	601	564	-6.2%	0.8%
Ecuador	353	388	395	393	397	384	382	400	416	410	427	4.2%	0.6%
Peru	127	128	123	121	120	113	113	104	96	88	82	-6.2%	0.1%
Trinidad & Tobago	134	141	142	141	126	134	141	138	135	155	163	4.4%	0.2%
Venezuela	2582	2752	2969	3107	3321	3510	3289	3321	3333	3219	2987	-7.1%	4.2%
Other S. & Cent. America	83	90	95	102	108	125	122	129	135	153	153	0.8%	0.2%
Total S. & Cent. America	**5049**	**5347**	**5792**	**6159**	**6493**	**6945**	**6823**	**6889**	**6913**	**6942**	**6721**	**-3.1%**	**9.2%**
Azerbaijan	259	193	186	183	186	230	278	281	300	311	313	0.6%	0.4%
Denmark	130	167	188	237	233	235	301	364	347	372	368	-1.3%	0.5%
Italy	99	98	101	104	114	108	96	88	79	108	107	0.7%	0.2%
Kazakhstan	490	430	424	474	526	537	631	744	836	1016	1106	8.4%	1.4%
Norway	2377	2693	2909	3233	3280	3139	3139	3343	3416	3329	3289	-2.7%	4.1%
Romania	144	145	145	142	141	137	133	131	130	127	123	-2.9%	0.2%
Russian Federation	7179	6419	6288	6114	6227	6160	6178	6538	7058	7696	8543	11.0%	11.6%
Turkmenistan	82	87	84	99	108	139	143	144	162	182	210	15.6%	0.3%
United Kingdom	2119	2675	2740	2735	2702	2760	2803	2857	2476	2460	2285	-6.9%	2.9%
Uzbekistan	84	128	172	174	182	191	191	177	171	171	166	-0.9%	0.2%
Other Europe & Eurasia	681	609	579	548	526	507	475	468	467	460	467	1.1%	0.6%
Total Europe & Eurasia	**13957**	**13858**	**13825**	**14084**	**14253**	**14175**	**14405**	**14932**	**15441**	**16259**	**16527**	**1.5%**	**22.1%**
Iran	3712	3735	3744	3769	3776	3865	3693	3818	3734	3420	3852	12.6%	5.1%
Iraq	455	505	530	580	1100	2125	2561	2580	2371	2030	1344	-33.9%	1.8%
Kuwait	1685	2095	2130	2129	2137	2176	2009	2105	2069	1971	2228	20.9%	3.0%
Oman	785	813	869	887	909	905	911	950	961	900	823	-8.6%	1.1%
Qatar	440	451	461	568	719	747	797	855	854	760	917	17.3%	1.1%
Saudi Arabia	8962	9023	9032	9189	9361	8370	8694	9297	8892	8884	9917	13.8%	12.8%
Syria	566	563	596	588	577	576	579	550	583	572	594	3.9%	0.8%
United Arab Emirates	2443	2462	2410	2479	2495	2558	2302	2428	2430	2155	2529	17.3%	3.2%
Yemen	209	348	351	357	376	390	405	458	471	462	454	-1.9%	0.6%
Other Middle East	53	52	52	59	50	49	48	48	48	48	48	–	0.1%
Total Middle East	**19561**	**20057**	**20175**	**20584**	**21564**	**22742**	**21988**	**23163**	**22533**	**20969**	**22857**	**9.3%**	**29.4%**
Algeria	1329	1324	1327	1386	1421	1461	1516	1578	1662	1691	1867	11.4%	2.1%
Angola	664	667	693	716	741	731	745	748	743	905	885	-2.2%	1.2%
Cameroon	130	115	106	110	124	105	95	88	80	72	68	-5.5%	0.1%
Chad	–	–	–	–	–	–	–	–	–	–	49	>100%	0.1%
Rep. of Congo (Brazzaville)	185	188	180	208	225	254	258	275	271	259	260	-4.2%	0.3%
Egypt	841	901	924	884	873	887	827	781	758	753	759	-0.5%	1.0%
Equatorial Guinea	5	5	7	17	60	62	100	113	161	227	249	5.0%	0.3%
Gabon	305	327	356	365	364	327	349	327	301	295	265	-10.5%	0.3%
Libya	1402	1401	1439	1452	1466	1480	1425	1475	1425	1376	1466	6.1%	1.9%
Nigeria	1985	1988	1998	2139	2303	2193	2028	2104	2199	2013	2185	8.6%	2.9%
Sudan	2	2	3	5	6	12	63	174	211	233	255	9.4%	0.3%
Tunisia	98	93	90	89	81	83	84	78	71	72	68	-4.2%	0.1%
Other Africa	38	42	51	62	64	63	56	61	64	65	74	14.6%	0.1%
Total Africa	**6922**	**7091**	**7112**	**7434**	**7754**	**7838**	**7571**	**7869**	**7895**	**7962**	**8451**	**6.1%**	**10.8%**
Australia	572	613	623	678	666	632	625	608	733	731	654	-10.5%	0.7%
Brunei	176	179	175	165	163	157	182	168	203	210	214	2.1%	0.3%
China	2888	2930	2989	3179	3211	3212	3213	3252	3306	3588	3306	1.1%	4.6%
India	620	708	804	778	680	791	768	788	780	784	783	-0.1%	1.0%
Indonesia	1580	1589	1578	1580	1557	1520	1400	1456	1389	1280	1179	-8.6%	1.6%
Malaysia	682	674	724	736	764	815	781	791	786	829	875	5.5%	1.0%
Thailand	97	97	97	97	116	121	122	164	174	191	217	15.7%	0.2%
Vietnam	128	144	155	179	206	245	288	328	351	364	372	4.8%	0.5%
Other Asia Pacific	277	289	331	348	338	318	318	198	194	200	203	1.3%	0.3%
Total Asia Pacific	**6997**	**7184**	**7325**	**7571**	**7713**	**7734**	**7864**	**7971**	**7914**	**7643**	**7872**	**-1.8%**	**10.2%**
TOTAL WORLD	**66966**	**67052**	**68009**	**69903**	**72026**	**73469**	**72043**	**74469**	**74687**	**74665**	**76777**	**2.9%**	**100.0%**
of which: OECD	32472	32628	32737	21356	21666	21477	21082	21534	21330	21402	21185	-0.7%	27.9%
OPEC	26874	27360	27601	28387	29743	30900	29561	31008	30258	28603	30383	6.6%	39.7%
Non-OPEC‡	26937	32300	33103	34248	34904	35144	34951	35565	35570	36049	35917	-0.2%	46.4%
Former Soviet Union	8186	7391	7297	7171	7377	7291	7151	8013	8059	8512	10477	10.2%	13.9%

*Includes crude oil, shale oil, oil sands and NGLs (natural gas liquids – the liquid content of natural gas where this is recovered separately).
Excludes liquid fuels from other sources such as coal derivatives.
‡Excludes Former Soviet Union.
Notes: Annual changes and shares of total are calculated using million tonnes per annum figures rather than thousand barrels daily.
Because of rounding, some totals may not agree exactly with the sum of their component parts.

Source: BP 2004 Statistical Review of World Energy

Table 2. Global Natural Gass Production

Natural gas

Production*
Billion cubic metres

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Change 2003 over 2002	2003 share of total
USA	520.4	541.9	534.3	541.7	543.1	549.2	541.6	550.6	564.7	545.4	549.5	0.7%	21.0%
Canada	139.0	149.1	158.7	163.6	165.8	171.3	177.4	183.2	186.8	187.9	180.5	-3.9%	6.9%
Mexico	25.4	25.9	26.6	28.0	31.7	34.3	37.2	35.8	35.3	35.3	36.4	3.0%	1.4%
Total North America	684.8	716.7	719.6	733.3	740.6	754.8	756.2	769.6	786.8	768.5	766.3	-0.3%	29.3%
Argentina	21.5	22.3	25.0	28.9	27.4	29.6	34.6	37.4	37.1	36.1	41.0	13.7%	1.6%
Bolivia	3.0	3.3	3.2	3.2	2.7	2.9	2.3	3.2	4.7	4.9	5.2	5.2%	0.2%
Brazil	4.5	4.5	4.8	5.5	6.0	6.3	6.7	7.2	7.6	9.2	10.1	9.2%	0.4%
Colombia	4.2	4.2	4.4	4.7	5.9	6.3	5.2	5.9	6.1	6.2	6.1	-1.5%	0.2%
Trinidad & Tobago	5.9	6.2	6.1	7.1	7.4	9.6	11.7	14.1	15.2	17.3	24.8	43.4%	0.9%
Venezuela	23.3	24.7	27.5	29.7	30.8	32.3	27.4	27.9	29.6	28.4	29.4	3.4%	1.1%
Other S. & Cent. America	2.1	2.2	2.2	2.3	2.4	2.5	2.1	2.1	2.2	2.0	2.1	2.3%	0.1%
Total S. & Cent. America	64.7	67.4	73.2	81.4	82.5	89.4	90.0	97.8	102.5	104.2	118.6	13.9%	4.5%
Azerbaijan	6.3	6.0	6.2	5.9	5.6	5.2	5.6	5.3	5.2	4.8	4.8	-0.3%	0.2%
Denmark	4.5	4.9	5.3	6.4	7.9	7.6	7.8	8.1	8.4	8.4	7.9	-5.3%	0.3%
Germany	14.9	15.6	16.1	17.4	17.1	16.7	17.8	16.9	17.0	17.0	17.7	4.1%	0.7%
Italy	19.5	20.6	20.4	20.0	19.3	19.0	17.5	16.2	15.2	14.6	13.7	-6.0%	0.5%
Kazakhstan	6.2	4.2	5.5	6.1	7.6	7.4	9.3	10.8	10.8	10.6	12.9	22.7%	0.5%
Netherlands	70.0	66.4	67.0	75.8	67.1	63.6	59.3	57.3	61.9	60.6	58.3	-3.8%	2.2%
Norway	24.8	26.8	27.8	37.4	43.0	44.2	48.5	49.7	53.9	65.5	73.4	12.0%	2.8%
Poland	3.6	3.4	3.5	3.6	3.6	3.6	3.4	3.7	3.9	4.0	4.0	1.2%	0.2%
Romania	20.6	19.7	19.0	17.2	15.0	14.0	14.0	13.8	13.6	13.2	12.6	-4.4%	0.5%
Russian Federation	576.5	568.4	555.4	561.1	532.6	551.3	551.0	545.0	542.4	555.4	578.6	4.2%	22.1%
Turkmenistan	60.9	33.3	30.1	32.8	16.1	12.4	21.3	43.8	47.9	49.9	55.1	10.4%	2.1%
Ukraine	17.9	17.0	17.0	17.2	17.4	16.8	16.9	16.7	17.1	17.4	17.7	1.8%	0.7%
United Kingdom	60.5	64.6	70.8	84.2	85.9	90.2	99.1	108.4	105.8	103.6	102.7	-0.9%	3.9%
Uzbekistan	42.0	44.0	45.3	45.7	47.8	51.1	51.9	52.6	53.5	53.8	53.6	-0.3%	2.0%
Other Europe & Eurasia	16.2	15.6	15.6	14.0	13.3	12.3	11.4	11.2	11.2	11.2	10.6	-4.8%	0.4%
Total Europe & Eurasia	944.5	907.5	904.0	944.8	899.0	915.4	934.8	959.4	967.8	990.0	1023.9	3.4%	39.1%
Bahrain	6.9	7.1	7.2	7.4	8.0	8.4	8.7	8.8	9.1	9.5	9.6	2.0%	0.4%
Iran	27.1	31.9	35.3	39.0	47.0	50.0	56.4	60.2	66.0	75.0	79.0	5.3%	3.0%
Kuwait	5.4	6.0	9.3	9.3	9.3	9.5	9.6	9.6	9.5	8.0	8.3	3.8%	0.3%
Oman	2.9	2.9	4.1	4.4	5.0	5.2	5.5	8.7	14.0	15.0	16.5	10.0%	0.6%
Qatar	13.5	13.5	13.5	13.7	17.4	19.6	22.1	23.7	27.0	29.5	30.8	4.4%	1.2%
Saudi Arabia	40.0	42.8	42.9	44.4	45.3	46.8	46.2	49.8	53.7	56.7	61.0	7.6%	2.3%
Syria	1.4	1.5	1.9	2.5	3.8	4.3	4.5	4.2	4.1	5.0	6.3	25.0%	0.2%
United Arab Emirates	23.0	25.9	31.3	33.8	36.3	37.1	38.5	38.4	39.4	43.4	44.4	2.3%	1.7%
Other Middle East	2.8	3.4	3.4	3.5	3.3	3.2	3.4	3.4	3.0	2.6	1.8	-32.7%	0.1%
Total Middle East	122.9	134.8	148.9	158.0	175.4	184.0	193.8	206.8	224.8	244.7	257.7	5.3%	9.8%
Algeria	56.1	51.6	58.7	62.3	71.8	76.6	86.0	84.4	79.2	80.4	82.8	3.1%	3.2%
Egypt	10.0	10.6	11.0	11.5	11.6	12.2	14.7	18.3	21.5	22.7	25.0	10.1%	1.0%
Libya	5.8	5.9	5.9	5.9	6.0	5.9	4.7	5.4	5.6	5.6	6.4	12.7%	0.2%
Nigeria	4.9	4.4	4.8	5.4	5.1	5.1	6.0	12.5	14.9	14.2	19.2	35.2%	0.7%
Other Africa	2.7	2.9	3.0	3.8	4.9	5.0	5.4	5.9	6.6	8.0	8.1	1.0%	0.3%
Total Africa	79.4	75.3	83.3	88.9	99.4	104.8	116.9	126.6	126.8	130.9	141.4	8.1%	5.4%
Australia	24.5	28.1	29.8	29.8	29.8	30.4	30.9	31.2	32.5	32.6	33.2	1.7%	1.3%
Bangladesh	6.1	6.6	7.4	7.6	7.6	7.9	8.3	10.0	10.7	11.4	12.2	6.9%	0.5%
Brunei	10.3	10.4	11.8	11.7	11.7	10.9	11.2	11.3	11.4	11.5	12.4	7.8%	0.5%
China	16.2	16.6	17.6	19.9	22.2	22.3	24.3	27.2	30.3	31.9	34.1	6.8%	1.3%
India	15.9	16.6	19.6	20.7	23.0	24.7	25.9	26.9	27.2	28.7	30.1	4.8%	1.1%
Indonesia	55.9	62.5	63.4	67.5	67.2	64.3	71.0	68.5	66.3	70.4	72.6	3.2%	2.8%
Malaysia	24.9	26.1	28.9	33.6	38.6	38.5	40.8	45.3	46.9	48.5	53.4	10.1%	2.0%
Myanmar	1.0	1.3	1.5	1.6	1.8	1.8	2.6	4.4	6.2	6.5	6.9	7.2%	0.3%
New Zealand	4.9	4.4	4.1	4.9	5.1	4.5	5.2	5.5	5.8	5.5	5.4	-2.2%	0.2%
Pakistan	12.2	13.3	14.6	15.4	15.6	16.0	17.3	18.9	19.9	20.6	21.1	2.5%	0.8%
Thailand	9.4	9.5	10.4	12.2	15.2	16.3	17.7	18.6	19.0	18.9	19.6	3.7%	0.7%
Other Asia Pacific	3.5	3.7	3.6	3.7	3.9	4.3	4.7	5.1	5.7	7.9	9.6	22.8%	0.4%
Total Asia Pacific	183.9	199.3	212.5	228.5	241.7	241.4	259.8	272.7	280.9	294.2	310.5	5.5%	11.9%
TOTAL WORLD	2080.0	2101.0	2141.5	2235.0	2238.8	2288.7	2351.4	2433.0	2489.7	2532.4	2618.5	3.4%	100.0%
of which: European Union 15	177.0	179.9	187.0	210.4	203.3	202.3	206.4	211.7	213.3	209.0	204.6	-2.1%	7.8%
OECD	926.8	966.4	978.9	1026.2	1032.0	1046.4	1066.6	1077.4	1102.0	1091.0	1093.0	0.2%	41.7%
Former Soviet Union	710.3	671.2	659.8	669.0	627.4	644.6	656.3	674.5	677.3	692.2	723.2	4.5%	27.6%
Other EMEs	443.0	463.3	502.8	539.7	579.4	597.8	638.5	681.0	710.4	749.3	802.3	7.1%	30.6%

*Excluding gas flared or recycled.
Notes: As far as possible, the data above represents standard cubic metres (measured at 15°C and 1013 mbar); as it is derived directly from tonnes of oil equivalent using an average conversion factor, it does not necessarily equate with gas volumes expressed in specific national terms.
Because of rounding some totals may not agree exactly with the sum of their component parts.
Natural gas production data expressed in billion feet per day is available at *www.bp.com/statisticalreview2004*

Source: BP 2004 Statistical Review of World Energy

Table 3. The Logistical Costs of Moving One TEU to/from Almaty (US$)

Corridor	Destination	Mode	Distance (Km)	Freight Costs (US$)	Time (days)	Cost/Km (cents)
Northern	Moscow	Road	4,391	3,350	10	0.76
		Rail	4,050	1,100	17	0.27
Western	Baku	Road	4,090	5,300	13	1.30
		Rail	3,934	1,800	18	0.46
Southern	Tehran	Road	3,120	4,650	16	1.49
		Rail	3,250	1,200	16	0.37
Eastern	Urumqi	Road	1,330	2,150	5	1.90
		Rail	1,338	1,016	8	0.76

Source: NEA (2002) and World Bank Staff

Table 4. FDI in the CIS in 2003 ($millions)

Country	Russian or Suspected Russian FDI	Total FDI	Russian as % of Total
Armenia	139.6	793	17.6
Azerbaijan	509.5	8,639	5.9
Belarus	709.7	1,897	37.4
Georgia	103.8	1,336	7.8
Kazakhstan	7.0	17,567	0.0
Kyrgyzstan	0.1	491	0.0
Moldova	169.8	789	21.5
Tajikistan	0.4	36	1.1
Turkmenistan	0.0	NA	NA
Ukraine	1,262.2	7,502	16.8
Uzbekistan	2.0	NA	NA
Total	2,904.0	39,051	7.4

Source: Crane (2005), International Monetary Fund, International Financial Statistics, October 2004.