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**The Caspian States
of the Former
Soviet Union:
Recent Economic
Performance and
Prospects in Light of
the September Events**

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Executive summary

This report analyses the recent economic performance of the oil- and gas-rich FSU 'Islamic' Caspian states Kazakhstan, Azerbaijan and Turkmenistan, focusing on the period from the Russian financial crisis of August 1998 through 2001. Special reference is made to the energy sector, since hydrocarbon investments and exports have since the late 1990s been by far the most important drivers of economic growth. Russia, a 'Slavic' Caspian state, is compared and contrasted with the other Caspian states, in its capacity as an oil and gas producer and exporter, transit country, and growth pole for the rest of the FSU. Vulnerability of various sectors of the economies to oil price volatility and 'Dutch disease' are discussed. Also discussed are possible effects of the September events on their political situations, major investment projects, export revenues, exchange rates, budgets, and prospects for transition in general.

The Russian financial crisis of August 1998 initiated a process of export-led growth which on balance accelerated Russia's economic transition. The rouble immediately plunged about 75% against the dollar, FDI came to a halt, and the banking, trade and payments systems were virtually paralysed for months afterwards. Russia's CIS neighbours did not immediately follow suit in an attempt to avoid 'contagion', but this 'beggared' them: they suffered loss of trade competitiveness on top of the problems inherited from the Soviet era and weak transition since 1991. Kazakhstan suffered a plunge in exports to Russia and a surge in shuttle imports in 1999, and though exports soared in 2000 ff., non-oil tradables did not benefit proportionally, a sign of 'Dutch disease'. Azerbaijan suffered a near-disappearance of its non-oil exports to the CIS owing to 'Dutch' loss of competitiveness, now exacerbated by devaluation in Turkey as well.

Fortuitously, the deterioration of the three Caspian states' CIS and subsequently ROW terms of trade coincided with a period of strongly rising world oil and gas prices and outputs. Russia and Kazakhstan had an easier time implementing some quite successful economic reforms as a result. Azerbaijan on the other hand coasted along on the bonuses, tax oil and profit oil it received from foreign investors, and its smaller, war-torn economy failed to harden budgets or attract investment, so that it is presently less well prepared to withstand the sizeable downturn in oil revenues. Turkmenistan had a gas revenue bonanza in 1999 ff. compared with the period when sales to Russia and the West were cut off, but (like Uzbekistan) used the cushion to maintain Soviet-type controls in trade, industry and agriculture, with poor and misleading results. It is rarely referred to any more as an 'economy in transition'.

The CIS economies, including Russia, Kazakhstan, Azerbaijan and Turkmenistan, continued export-led growth in 2000, helped by both high oil prices and increased volumes. This helped re-monetize the cash-starved Russian and Kazakh economies, hardening budgets by reducing incentives to resort to costly and corrupt barter transactions, while at the same time promoting a recovery of intra-CIS trade and payments. The export-led boom spread to other sectors such as domestic retail sales, construction and agriculture, especially in Russia and Kazakhstan, as devaluations curtailed the former flood of consumer-good imports.

The torrid growth rates of 2000 and 2001 are not sustainable and have already slowed. The FSU countries' infrastructure, plant and equipment have suffered nearly two decades of low or negative net renewal – the recovery in investment generally, and of FDI and construction in particular, since 1998 has been from a very low base and insufficient to reverse the effects of decades of inappropriate design and poor maintenance. Development of presently undeveloped oil and gas fields, as opposed to workovers of existing ones, will require major injections of almost certainly foreign capital under production-sharing agreements. The improvement in Russia's international reputation in the wake of the September events may help in this regard. Further progress on transparency, corruption, the judicial system, and the business climate generally will be needed to reverse capital flight and attract the needed billions. Much will depend on expectations regarding world oil prices, as the Caspian region (and Siberia) remain high-cost and low-transparency in comparison with alternatives such as Saudi Arabia and states in Latin America and Africa.

The September 2001 events made it clearer that the paths of Kazakhstan and Azerbaijan are diverging and their economic and strategic interests becoming less similar vis-à-vis Russia and the west. With the opening of the CPC pipeline north across Russia to Novorossiisk on the Black Sea, Kazakhstan's oil exports (until e.g. the giant Kashagan offshore field comes on stream towards the end of the decade) are no longer capacity constrained, whereas Azerbaijan's will remain so until circa 2005, when the Baku-Tbilisi-Ceyhan pipeline could be finished, assuming it will be built despite the fall in world oil prices. Russia's Transneft will gain capacity it can allocate to other exporters, as Kazakh oil from Tengiz and Russia's Caspian and Volga region producers switch over to the CPC. Turkmenistan remains at the mercy of Russia both as a market and a transit country for gas sales to e.g. Ukraine.

All four countries however are now much more vulnerable to changes in hydrocarbon revenues than in the late 1990s, when their economies were more diversified. An idea of how leveraged Azerbaijan and Kazakhstan have become to world price volatility is that the decline in the gross expected value of their 2001 oil exports due to a USD 7 per barrel price drop – such as occurred between September and November 2001 –

equates to 35% of Kazakhstan's year 2000 consolidated government expenditure, and to 43% of Azerbaijan's. The new National Oil Funds may well have to be drawn on in e.g. Kazakhstan and Azerbaijan in 2002. Turkmenistan's gas revenues are under the personal control of President Niyazov.

Longer term, Azerbaijan's, Turkmenistan's and especially Kazakhstan's economic prospects are potentially very bright. Though their oil revenues will fall in 2001 and 2002 in just about any price scenario, and possibly also in 2003, they are already much increased from 1999 levels.

Keywords: *FSU, CIS economies, Russia, Azerbaijan, Kazakhstan, Turkmenistan, Central Asia, Caucasus, Turkey, Iran, Caspian sea, Caspian pipelines, Kashagan, oil exports, gas exports, OPEC, BP, transition, transparency, corruption, 'Dutch disease', September 11, Islam, sultanism, Tengiz, Baku-Çeyhan, Novorossiisk, production sharing agreements (PSAs), Dagestan, Kalmykia, Astrakhan Region*

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The Caspian States of the Former Soviet Union: Recent Economic Performance and Prospects in Light of the September Events

Introduction

The subsoil under and near the Caspian Sea contains vast hydrocarbon reserves thought comparable to those of Mexico or the North Sea. If developed, they have the potential to change the economic situation in the three smaller, former Soviet, Islamic Caspian states very much for the better in coming decades. Four of the Caspian littoral states, Azerbaijan, Russia, Kazakhstan, and Turkmenistan, were Soviet Socialist Republics of the USSR before the demise of the Union in 1991. They are thus new to political independence and sovereignty, and their economies are still presumed to be 'in transition' to mixed market economic systems. Iran is the fifth sovereign state with a Caspian littoral. Like Russia, Iran is already a significant oil exporting country, though not as yet from its northern and Caspian offshore deposits. This paper focuses on the economies of Kazakhstan, Azerbaijan and Turkmenistan, though Russia is frequently mentioned.

The 'Islamic' republics of the former Soviet Union have certain features in common. Their titular ethnic groups, including those of Kazakhstan, Azerbaijan and Turkmenistan, are to varying extents Islamicized, or at least were Muslims at the turn of the 20th century. They underwent a minerals-and-staples' based pattern of economic development in Soviet times, and they have strongman leaders and a 'succession problem'. To save time, in the present paper Kazakhstan, Azerbaijan and Turkmenistan will be referred to as the 'Caspian states', the FSU four as the 'Caspian states and Russia', and the five states involved in delimiting rights to resources in the Caspian seabed, including Iran, as the 'Caspian littoral states'.

Russia features in the paper mainly in its capacity as an oil and gas producer and exporter, as a transit country, and as a growth pole for the rest of the FSU. On account of its much greater size and population¹, its more diversified industrial base, its more democratic political record since independence, and its closer historical, linguistic and religious links with the west, Russia presents many points of contrast with the other three ex-Soviet Caspian states. Russia also plays a totally different role bilaterally with them, particularly with Kazakhstan, than they do with one another.² Russia's internal market was traditionally and is now a key destination for its neighbours' exports, both fuel and non-fuel, on account

¹ The demographic relativities are changing rapidly however. According to the US Census bureau international data base (IDB), by 2030 there will be 95 million people living in Central Asia, Kazakhstan and Azerbaijan, and 133 million in Russia, cf. 146 million in Russia and 64.8 million in the 'Islamic' republics in January 2000.

² Azerbaijan's trade turnover with Kazakhstan, and Kazakhstan's with Azerbaijan were for example less than 1% of each country's total in 2000.

of Russia's pre-eminent weight (52% of the population, 74% of the GDP in 2000) within the Commonwealth of Independent States, because of the inherited centre-periphery structure of much of Soviet industry and infrastructure and, finally, thanks to Russia's very dynamic growth since 1999.

Vis-à-vis the rest of the world, however, the Caspian states and Russia share a common set of problems, if of differing severity. Russia remains very much a FSU primary-products producer and a country 'in transition' to a law-based, hard-budget, market economy. Its fuel and power industries face many of the same transition problems as do the fuel and power industries and enterprises of the Caspian countries, including the need to harden budgets, collect payables from users, discourage capital flight, and attract billions of dollars' worth of investment. Its manufacturing industries are of dubious competitiveness internationally, and lobby constantly for protection. Regional data are somewhat hard to come by, but the paper contains a brief section on the economies of Russia's regions bordering the Caspian Sea: the republics of Dagestan and Kalmykia and the Astrakhan region.

Iran is mentioned only in passing. Were we writing before the first Soviet Five-Year Plan and were geography and geology the only criteria for inclusion, Iran might be profitably compared with the parts of Russian Empire / Soviet Union which ended up as the Azeri, Kazakh and Turkmen SSRs.³ However Iran did not ever have a Soviet-type planned economy, even if decades of state intervention in its oil and other industries have bequeathed to its bonyad conglomerates some of the competitiveness problems faced by enterprises in the FSU Caspian states and Russia.

Turkey and former Soviet Georgia, though not 'Caspian' by geography, are mentioned in so far as they are important to the economic development of the Caspian littoral states. This is, first, because they serve as transit countries to world markets for Caspian oil and gas, earning their budgets lucrative transit fees and taxes. These are specially important for impoverished Georgia. Uzbekistan is regarded by some as belonging to the Caspian region, though its nearest border is some 200 km from the Caspian shore, because Uzbekistan is an important state in the region, has a large population (24.8 million in 2000), is an 'Islamic' FSU economy 'in transition', depends on the Russian pipeline system, and is one of the world's top ten gas producers, though presently with little surplus to export. Turkey, with a fast-growing population of 66 million and a high energy import dependence, is forecast to become a key customer for Caspian and other Russian oil and gas, so much so that the many changes in sentiment regarding Turkish future demand have affected decisions regarding Caspian oil and gas projects.

³³ Richard Pipes, *The Formation of the Soviet Union*, 2nd edn., Harvard 1967, chs. 4-5.

The paper will compare and contrast the FSU Caspian states' and to a lesser extent Russia's economic situation since the Russian crisis of August 1998, with special focus on the performance of their energy sectors. Their futures depend largely on how fast energy resources are developed and how wisely the revenues are spent. The paper will attempt to gauge the likely impact of the September 11th attacks on the Caspian states, balancing the heightened likelihood that recession will spread and oil prices will remain well below 2000 levels at least through 2002, and that oil and gas investors may wish longer-term to reduce their dependence on the Middle East, ... against the hope that Russia and its neighbours will begin to be more attractive targets for investment thanks to more stable and transparent legal regimes and lower trade barriers. Russia in particular may derive economic benefits such as accelerated WTO membership from President Putin's post-September 11th political rapprochement with the US and western Europe. If Russia gains entry, it would be all the easier for the others to follow suit.

1 The situation of the FSU economies at independence

The FSU economies as a group were ill-prepared to meet the demands of world competition after the demise of the Soviet Union. Their industries suffered major losses of competitiveness with the end of planning, the freeing of input prices and the collapse of the unified rouble-zone economic space in 1992-93. The 'Baltic', 'Slavic' and 'Islamic' republics of the FSU saw unprecedented declines in output, trade, incomes and job security. Many lines of Soviet-design machinery, consumer goods and military hardware experienced literal decimation of demand in 1992-94, only to stagnate at the lower levels for most of the 1990s.

Nevertheless, some branches of industry in e.g. Kazakhstan, Russia and Azerbaijan began to turn up in 1995-97. Russia, Kazakhstan and Azerbaijan attracted hundreds of millions of dollars' worth of capital inflows, some as FDI. (See Table 1 at the end of the paper.)

The Caspian states and Russia were of course better situated than e.g. Georgia, Armenia and Moldova in having vast reserves of natural resources, particularly hydrocarbons, if not yet the legal or physical infrastructures fully to profit from them. According to the US Energy Information Administration, the Caspian region (in which they include Uzbekistan) had as of July 2001 proved oil reserves of between 2.38 and 4.63 billion tonnes of oil, and 32 billion tonnes of possible oil reserves. Proven gas reserves the US agency puts at 8.8 to 9 trillion cu metres, and possible gas reserves, at 11.9 tcm. The BP Statistical Review of World Energy puts the proved gas reserves of the three Caspian states at 5.56 tcm, and Russia's gas reserves (the whole Russian Federation, not just its Caspian littoral oblasts and republics) at 48 tcm (1700 tcf). BP estimates the three Caspian states' proved oil reserves at 2.1 billion tonnes and all of Russia's proved oil reserves at

6.7 billion tonnes. Kazakhstan and the north Caspian on- and offshore may have much more oil and gas than is known at present, whereas Azerbaijan's reserves are not thought likely to be revised significantly upward.

Financial stabilization and enterprise reform proved to be major challenges for the former Soviet economies in their first decade of independence and economic transition. They had no experience of monetary or fiscal policy before 1992 and had to learn to collect taxes, a problem that did not arise under central planning, when the state raised revenue by grossly overcharging for and under-producing consumer goods while restricting their import. Under planning, the state controlled enterprises' use of cash through the monobank system. The first taxes post-independence were numerous, ad hoc, inconsistent and very high; these factors plus unfamiliarity led not only to rampant tax avoidance but to a non-transparent regime for tax delinquents, encouraging new forms of corruption. One result was that the shadow economy in e.g. Azerbaijan in the mid-1990s was estimated to be over 50% larger than recorded GDP itself.

The Caspian economies and Russia suffered mega-inflation in 1992-95, but from mid-decade began to have more success in stabilizing the price level. Government budget deficits were reduced through lower emissions, better acknowledgement of off-budget funds and state loan guarantees, and by outright sequestration, whereby government funds were only spent as they were collected. Inflation rates fell from four- to two-digit annual average levels, though arguably much of the improvement before 1999-2000 was 'virtual', in that government and enterprise-sector payment arrears replaced the earlier high deficits, as government entitlements and subsidies were not sufficiently curtailed, and there were few sanctions for non- or late payment: neither state nor enterprise budgets were 'hard'.⁴

The Russian financial crisis of August 1998 changed many expectations and practices. The rouble immediately plunged about 75% against the dollar, the government defaulted on its bonds, foreign direct and portfolio inflows dried up, real wages fell, and the banking, trade and payments systems were virtually paralysed for months afterwards. Neighbouring CIS countries belatedly followed suit with parallel devaluations, though e.g. Kazakhstan held out for nearly nine months and suffered a plunge in exports to Russia and a surge in shuttle imports as a result. Fortunately, deterioration of the three states' CIS and subsequently ROW terms of trade coincided with a period of rising oil and gas prices. Russia and Kazakhstan had an easier time implementing some quite successful economic reforms as a result. Azerbaijan on the other hand coasted along on the bonuses, tax oil and profit oil it got thanks to foreign investment, and failed to make much progress with restructuring, so that its economy is less well prepared to withstand the forecast downturn

⁴ C. Gaddy and B. Ickes, 'Russia's Virtual Economy', *Foreign Affairs*, 77, September-October 1998.

in oil revenues. Turkmenistan had a gas revenue bonanza compared with the period when sales to Russia were cut off, but (like Uzbekistan) used the cushion to maintain Soviet-type controls in trade, industry and agriculture, with poor and misleading results.

The ex-Soviet economies entered an export-led recovery phase in 1999 ff. Growth of output, investment and the value of exports continued at a high pace in most of the CIS in 2000, helped by both high oil prices and increased volumes. This helped remonetize the cash-starved Russian and Kazakh economies, hardening budgets by reducing incentives to resort to costly and corrupt barter transactions, while at the same time promoting the recovery of intra-CIS trade and payments. The export-led boom spread to other sectors such as domestic retail sales, construction and agriculture, as devaluation curtailed the former flood of consumer goods' imports.

The torrid growth rates of 2000 and 2001 are not sustainable and have already slowed. The FSU countries' infrastructure, plant and equipment have suffered nearly two decades of low or negative net renewal. The recovery in investment generally, and of FDI and construction in particular since 1998 has been from a very low base and insufficient to reverse the effects of decades of inappropriate design and poor maintenance.

Development of presently undeveloped oil and gas fields, as opposed to workovers of existing ones, will require major injections of almost certainly foreign capital. Further progress on transparency, corruption, the judicial system, and the business climate generally will be needed to reverse capital flight and create a more suitable capital stock at home.

1.1 Drivers of economic performance in the FSU Caspian states

1.1.1 External drivers: 'Dutch' implications of various energy prices

The main driver of economic development in the Caspian states is an external one, the state of the world energy market. Expected future oil and gas demand determines in a first instance the amount of investment in Caspian exploration and production, and as the development projects come on stream, it determines the countries' top-line revenues from taxing, transporting and selling oil and gas on international markets. The Caspian states, and to a lesser extent Russia, are already highly vulnerable to changes in the world oil price. Mineral products exports accounted for 22.4% of GDP and 52.6% of Russia's merchandise exports (excluding shuttle trade) in 2000, and 13% of recorded dollar GDP; those fractions were higher for Kazakhstan, at 26% of GDP and 57% of exports, and higher still for Azerbaijan, at 31% of GDP and 70% of exports in 2000. According to CIS statistics, mineral products were 61% of Turkmenistan's exports in 1998, but gas exports

have since risen very substantially in both absolute and relative terms, so the ratios for 2000 and 2001 must be well above that.

The speed at which hydrocarbon reserves are developed around the world is mainly a function of the world oil price, as that is mainly what drives the annual exploration and production commitments of multinational companies (including part state-owned Russian enterprises like Lukoil and Gazprom), oil being much more readily transportable than natural gas. Volatility is a negative for any given expected price level.

Reliance on multinational oil companies for investible funds has been near-total because, to date, neither Russia nor the Caspian countries (or their national oil companies) have been investor-friendly and transparent enough, and thus not credit-worthy enough to attract arms'-length finance in their own right at reasonable terms from western commercial banks or syndicates of banks.⁵ In fact, the biggest western companies have themselves had to fund exploration investments in the Caspian countries from retained earnings off balance sheet, as western commercial banks would not lend even to firms with the majors' credit ratings for projects in countries such as the FSU, which did not have established track records and tested property rights; the political and tax risks were seen as too high.⁶

Many political and strategic factors influence decisions to invest the billions of dollars required in order to explore and develop oil and gas fields and build the pipelines and facilities needed to transport them to users. By far the most important factor and *sine qua non* is that the projects be deemed commercially viable. Commercial viability in the case of oil depends mainly on projections of the world price, its volatility, and how the expected price stands up against projections of extraction and transport costs. Unlike, for example, Saudi Arabia, the world's swing producer,⁷ Kazakhstan and Azerbaijan have no influence on the world price of oil. Nor do they control extraction costs, these being mainly geologically determined, and high compared to those of other countries.⁸ The leaders of the three Caspian states of course have a major role in setting the tone and creating the business climate in which foreign investors must operate, and this does affect cost projections and thus investment decisions. The flagrantly corrupt behaviour of

⁵ The EBRD, a semi-commercial institution, has bridged this gap only slightly.

⁶ David Winfield, 'Oil and Gas Financing Agreements', in Martyn R. David, ed., *Upstream Oil and Gas Agreements*, London, Sweet & Maxwell, 1996; T. Adams, 'Caspian Energy Investment 2001: the new realities', talk at Chatham House, 14 June 2001.

⁷ J. Lee, 'Regional Energy Resources and Production in the Middle East and Central Asia / Caspian Basin Regions', International Energy Security conference, Berlin, November 2000.

⁸ According to a Shell executive, a well costs 25 times less in Oman than in the Caspian. D. Buchan and D. Stern, 'Survey – Energy and Utility Business', *Financial Times online*, 8 August 2001. According to Nick Mikhailov of the US Commercial office in Moscow, extraction costs in Russia (not just in the south) average USD 9 per barrel, cf. USD 6 in OPEC. 'Overview of the Russian Oil and Gas Sector', November 2001. According to *The Economist* 15-21 December 2001, p. 15, in the Middle East extraction costs are only USD 1 per barrel.

Turkmenistani President Niyazov in demanding an excessive signing bonus contributed to scuttling the US-sponsored PSG trans-Caspian gas pipeline project in mid 2000.

Some variant of the 19th century 'Great Game' is widely supposed to influence economic development of the Caspian littoral states. Strategic political considerations of the major countries interested in Caspian developments, whether as producers, consumers, financiers or transit countries, are thought to be able to influence the timing and scale of expensive projects funded by private corporations. The notion is that western governments negotiating at the highest level have the power to *link* quite disparate benefits which may accrue to local states such as Russia, Iran, Azerbaijan and Kazakhstan, to their actions in specific policy areas, such as commitments to resolve regional conflicts or to respect grandfather clauses in contracts between the states and foreign investors. Such actions, especially the latter sort, then make private-sector projects less risky or more profitable and thus more likely to be undertaken.

After the fall of the Soviet Union, western governments admitted to having several strategic objectives in the Caspian region. The US and the EU desired to shore up the independence of the CIS states vis-à-vis Russia. Turkey was encouraged to take up the slack as 'mentor in democracy and market economics' to its Turkic-language-speaking brothers in Azerbaijan, Kazakhstan, Turkmenistan, Uzbekistan and Kyrgyzstan. Turkey and other countries, including Russia, had the strategic objective of reducing the risk of ecological disaster in the Bosphorus and Dardanelles, as did the oil majors and their insurers, mindful of the e.g. USD 10 billion cost of cleaning up the Exxon Valdez oil spill in Alaska. From the fall of the Shah in 1979 and the Gulf War in 1991 the US wished to isolate and put pressure on 'pariah' states like Iran and Iraq.

Western governments and multilateral agencies were thought able to impact private western oil companies' investment decisions by indirect financial means, such as contributing to the costs of finance or insurance, whether as participants, providers of export credit guarantees, or as grant-givers for preparatory or ancillary studies which might lower the apparent overall cost of a project at a crucial time. Italy's export credit guarantee agency SACE for instance is helping to finance the subsea section of the Russo-Turkish Blue Stream pipeline. The US government's Trade and Development Agency in June 2001 gave Azerbaijan a grant of USD 600,000 to study the modernization of two refineries and port facilities in Baku so that they might take lower-grade oil from Russia and Kazakhstan, with a view to freeing up some Azeri oil for export on the BTC pipeline, a project the US favours for strategic reasons. Were the extra supply eventually to be forthcoming thanks to the events set off by a positive result to the study, it will have made a contribution, however tiny, towards the pipeline project's expected profitability, as judged by those such as BP, who will have to spend billions on it if they decide to do it.⁹

⁹ David Buchan and David Stern, 'BP and US reveal moves to boost Caspian oil pipeline', *Financial Times*, 8 June 2001.

In our view, these examples suggest that 'Great Game' considerations of governments are likely of marginal importance in determining specific capital commitments by publicly-traded western oil companies. Projects which do not meet companies' internal profitability criteria (after allowing for government ancillary aid such as the above) do not win the support and boost the careers of key executives, not to speak of their bankers, auditors or shareholders. Projects of long-term strategic benefit to the US, Turkey and Europe languished on the back burner during the low energy price era of the late 1990s, and the Azeri and Kazakh exploration and development projects could do so again if we are in for another period of oil prices in the low teens of dollars per barrel.

The wild swings in world oil and gas prices that occurred in 1998-99 despite basically positive world economic conditions, and the quickness with which the Caspian states' foreign-financed resource development projects were delayed on that account, gave their élites some awareness of the risks that open, resource-based economies face. In theory they should be better prepared for volatility at present than they were in the mid-1990s, but expectations have been raised, and the leadership successions come ever closer.

This said, the importance of the mineral sector, which rose sharply in 1999-2001, is set to increase steadily in coming years in the Caspian economies. On top of this, Azerbaijan and Kazakhstan should experience an upward shift in hydrocarbon revenue towards the middle of the decade, depending on the schedules for e.g. Kashagan and pipeline projects such as the Baku-Tbilisi-Çeyhan pipeline (which could be built by late 2004 if it is given the go-ahead in the first months of 2002). Although President Nazarbayev is pressing the AKNCOC consortium to get the first oil out by 2004/05, 2007-09 are years for on-stream production in Kashagan mentioned by Agip, operator of the giant discovery.

Oil booms usually have negative economic effects on non-oil sectors in resource-rich countries – a phenomenon known as 'Dutch disease'. Capital flight on a scale of hundreds of billions has kept a good deal of the Caspian countries' oil revenue earned in the 1990s and turn of the millennium abroad, mitigating 'Dutch' pressures somewhat. Should oil prices fall back to the dollar teens again, that too would reduce pressure on the non-oil tradables and non-tradables sectors, affording them breathing space similar to the protection offered to Russia by its huge 1998 devaluation. Some Russian analysts welcome the prospect for that reason, as lower oil revenues would give e.g. steel, autos and aviation more time to adjust and fewer imports to compete with, just as a delayed WTO entry would.

1.1.2 Internal drivers: policy responses to 'Dutch' pressures

In theory, revenue from oil and gas sales should help smooth the pain of restructuring and pay for better social services. On the other hand the Caspian economies and Russia are

highly vulnerable to 'Dutch' loss of competitiveness of their non-oil sectors. A separate, additional problem is that of income distribution. As has occurred in many OPEC and Persian Gulf countries, resource bonanzas may be largely monopolized and/or misinvested by corrupt or misguided élites.

Thus how the revenues from oil and gas projects will be spent inside the countries will determine the character of future economic development. Problem one in this problématique is 'Dutch disease', the technical curse of the resource-rich economy, so dubbed because the Netherlands suffered from it when North Sea oil revenue began to affect the competitiveness of Dutch manufacturing in the second half of the 1970s. 'Dutch' problems occur when unsterilized capital inflows, the counterpart of export sales of goods like oil, exert upward pressure on the exchange rate (assuming it is floating) but in any event cause domestic prices and wages to rise, infecting with a generalized loss of competitiveness both the non-resource tradables sector (non-oil tradables like steel, manufacturing and agriculture, which compete with other countries' products on export markets and are vulnerable to competition from imports on their home markets) and non-tradables like government and private services. The inflows push up wages and other costs of tradables, making them less saleable both at home and abroad, so that imports gain market share.

In transition economies, Dutch disease complicates already-difficult efforts to revive traditional tradables sectors such as coal, steel and ex-kolkhoz agriculture, most of which are already losing money at true prices, and which require substantial investment in e.g. energy-efficient plant and equipment and the shedding of redundant labour if they are to withstand global competition longer-term. In large, geographically-diverse countries like Russia and Kazakhstan, depressed conditions in the non-oil economy have important regional political implications, but in all transition economies Dutch disease risks reducing support for structural reform, as there is a large swathe of losers.

Given their poor starting points, export orientation, and the likelihood of adverse trends in their terms of trade, the non-oil sectors in the three 'Islamic' Caspian ex-republics, such as what is left of manufacturing and mining, face severe challenges in attracting investment to modernize. Not only good macroeconomic policies, but also improvements in transparency and a reduction in corruption are needed to encourage output and investment in these sectors, and to create a climate facilitating the start-up of small service enterprises which might absorb the hundreds of thousands of underemployed and potentially redundant workers.¹⁰

¹⁰ Official employment in Russia fell by 9.6 million workers, and in Kazakhstan by 1.56 million, between 1991 and 2000; in Azerbaijan and Turkmenistan the totals grew owing to 'Islamic' birth rates and the refugee influx, but in e.g. Azerbaijan over a third of the employed are self-employed. (Table 1)

However, corruption, favouritism and nepotism have deep roots, both ethnic-cultural and Soviet. Improvements in transparency have been very limited; indeed, transition multiplied the rents to be sought or allocated to one's friends and relatives. One interpretation of why e.g. President Putin and many members of the Russian policy establishment are pushing for WTO membership for Russia is that meeting the conditions for entry will force down barriers to trade and entry and induce Russia's protection-minded industrial interest groups to restructure faster, in their long-term interest.¹¹

The 'quality' of growth in the Caspian countries in the medium term, i.e. the creation of a more diversified, less vulnerable industrial structure, and a wider, more equitable distribution of the benefits of the oil bonanza, will be influenced by the authorities' ability to manage volatility in state finances so as to create a more stable and friendly environment for non-oil businesses (including agriculture). It will also be influenced by the sort of industrial policy (read: protectionism) that is tried.

Regarding Dutch disease, results so far seem somewhat encouraging, at least in Russia; Kazakhstan's rust belt has fared less well. However much worse is yet to come, especially if the liberalizations which would permit e.g. WTO entry take place sooner rather than later. The performance of non-oil exports in 1999-2001 appears to have been more a question of strong revival of traditional inter-CIS patterns ignited by higher Russian oil revenues than a successful restructuring to meet global competition. In Kazakhstan's case that means Russian competition too. The countries are still being accused under anti-dumping actions. The 1998 ff. devaluations of the rouble, tenge, and manat were protective against world competition. Real 'Dutch syndrome' involves exchange rate appreciation, not depreciation.

Macroeconomic stabilization has proceeded on a learning curve, with good results on e.g. inflation (except in Turkmenistan, which maintains heavy price and exchange rate controls), even though the apparent improvements were partly 'virtual' in countries like Azerbaijan. Against expectations, the oil bonanza so far has not yet driven real exchange rates up too sharply (except vis-à-vis Turkey), though domestic inflation in the teens and twenties while nominal rates remain stable will have palpable effects on real exchange rates over time. Non-oil exports have nevertheless experienced huge volatility in quarter-to-quarter and year-on-year performance, and the most recent numbers are quite bad.

Russia's oil boom benefited many other sectors of its own domestic economy and helped e.g. the agricultural exports of its neighbours. However all the Caspian FSU states have seen huge and mostly accelerating import growth since the 1999 nadir, not all of it

¹¹ McKinsey Global Institute, *Unlocking Economic Growth in Russia*, September 1999, concluded that local government interference and state favoritism towards behemoth losers and against more efficient competitors was the main cause of output falls and very low productivity across a host of industries in Russia, and that output could recover substantially in the right policy environment even without expensive upgrades of equipment. These conclusions might well be applicable to parts of e.g. Kazakh industry, in similar measure.

consisting of investment goods paid for by foreign investors. On the one hand, a flood of cheap imports keeps prices and the cost of living down; on the other it crowds out domestic manufactures and agriculture.

Regarding industrial policy, the two ends of the continuum are roughly (a) rank *ad hoc* protection for sectors which then do nothing about restructuring and thus remain highly uncompetitive at true prices, and (b) policies encouraging activities which are 'externality-rich', such as, arguably, infrastructure, which at least *may* lower costs in the wider economy. This would mitigate 'Dutch' effects rather than merely protecting the profits and rents of workers and owners of a particular plant at a cost to the rest of the population.¹² Against the advice of the international agencies, industrial policy is virtually certain to be tried, if only to placate local oligarchs in 'loser', rust-belt industries or regions.

Were the various presidents to become more popular, such as President Putin is at present, for example were they to oversee a distribution of oil benefits that is perceived as fair, or were the upcoming leadership successions in the 'Islamic' CIS states to come off relatively smoothly, there may be greater strength at the centre to withstand clamours for tariff protection and special treatment of workers in loser industries. Weak governments are more likely to adopt populist social policies and pork-barrel type industrial policies, both of which are harmful to the non-oil economy longer-term.

The second issue regarding what happens to the resource revenues revolves around income distribution, corruption and capital flight. The élites of the Caspian states may get most of the benefits of hydrocarbon development, with correspondingly few for the majority living in poverty. Even if the proceeds are not sequestered broad, they may be spent disproportionately at home on luxury imports, with low trickle-down to poorer sections of the population, particularly those living outside the capital or in non-resource regions.¹³ On the one hand, keeping oil export proceeds in a Swiss bank account reduces pressure on the exchange rate and mitigates Dutch disease, but on the other, the state treasury is deprived of revenue for infrastructure development, transfers and non-funded social benefits.

The post-September 11th highly unequal, repressive but tense social situation in e.g. the Emirates and Saudi Arabia may find echo in Kazakhstan and Azerbaijan as the petrodollar revenues begin to flow in. Again, Russia is developing on a more democratic path, though hardly an egalitarian one. Its shares-for-loans privatizations of the mid-1990s have been

¹² See H. Boss, *Theories of Surplus and Transfer*, Unwin Hyman 1990, on rent-seeking vs. profit-seeking, and externality richness.

¹³ M.L. Ross, 'Does Oil Hinder Democracy?', *World Politics*, vol. 53, no. 3, 4/2000, pp. 325-361; P. Luong, 'Prelude to the Resource Curse', *Comparative Politics*, May 2001.

pilloried by many western analysts (including now some at the IMF!).¹⁴ President Putin's successful campaign to remove e.g. Vyakhirev as head of Gazprom does not have parallels in the Islamic FSU states despite frequent musical chairs in the upper echelons of government. On the contrary, dynasties are in formation, as the heads of state have set up their children and sons-in-law in top business and government posts, and sent their grandchildren to élite schools and universities in the US and Europe, preparing them to retain control when the inevitable happens. (The situation in Turkmenistan is more unstable, as President Niyazov has a serious heart condition and has appeared vulnerable to an actual coup d'état, which would mean an end to his dynasty.)

Quality of growth in Kazakhstan, Azerbaijan and Turkmenistan will obviously depend on the authorities' willingness to target expenditure to the neediest, so as to alleviate the distress of disadvantaged groups, improve social cohesion, and, more positively, to create new human and social capital. Social policy was said to comprise a strong prevention-of-fundamentalism aspect in Azerbaijan and Turkmenistan (and especially in Uzbekistan) in the 1990s and 2000. Prior to September 11th, fundamentalism was not such a pressing concern of the Kazakh government, as ethnic Kazakhs are viewed as relatively lightly islamicized, more 'Eurasian' or Russified, or at any rate less susceptible to Taliban-type or other religion-based opposition groups than the citizens of Central Asia proper or Azerbaijan.

A worry is that a resource bonanza may finance a postponement of economic reforms. This is a second-stage aspect of Dutch disease. Kazakhstan and Azerbaijan took some time in the 1990s learning to work out realistic, non-inflationary consolidated government budgets; implementation was poor, and the state's soft budgets spread arrears throughout the system, complicating reform of e.g. the power sector, where rates were kept below cost-recovery specifically to help the non-oil sector; even so, cash collection rates improved only slowly.

Like many other petroleum exporting countries from Norway to Kuwait, Azerbaijan and Kazakhstan have now set up National Oil Funds to invest proceeds in safe vehicles in western financial centres, but they have done so only recently and with dubious transparency, and e.g. the Azeri fund had very little money in it as of mid 2001, so it is too early to judge their success, though the drop in oil revenue expected for 2002 may give them an early test. Russia has instituted a Debt Reserve Fund to deal with its huge Paris Club commercial bank debt left over from Soviet times; debt repayments due on this peak in 2003 at USD 19 billion – one reason why the government was happy to ride on OPEC's coattails without agreeing to significant export cuts, though that may change slightly in the

¹⁴ E.g. Augusto Lopez-Claros, 'The Fund's Role in Russia', a memo dated 19 June 1996; Janine Wedel et al.; the opposite view is held by Anders Aslund, 'Think Again – Some Common Misconceptions about Russia', *Transition*, July-August-September 2001, pp. 13-15.

first quarter of 2002. Resort to these oil funds will be a function of the world oil price; in Russia at year 2000-01 export volumes, every dollar's worth of change in the oil reference price translated into approximately a USD 1.5 billion change in government revenue and a USD 1.5-1.7 billion change in export revenues. In Kazakhstan the relationship stands at about USD 200-225 million in gross export revenue for every dollar's difference in the barrel price of oil, and in Azerbaijan, about USD 50-60 million.

Privatization is a classic recipe for hardening enterprise budgets, including those of agricultural enterprises. The countries under discussion differ considerably with respect to privatization of the larger enterprises and agricultural land, though they all have got the smaller units out of the state sector. As of 2000, according to national labour force statistics, private and otherwise non-state enterprises employed over 60% of the workforce in Azerbaijan and Russia, a bit less in Turkmenistan, and 77% of the workforce in Kazakhstan.

Kazakhstan and Azerbaijan negotiated scores of joint ventures and production-sharing agreements with western investors in their resource sectors, but there have been constant problems. Turkmenistan's leaders on the other hand were too corrupt and idiosyncratic to clinch many deals, though some remain on the drawing boards, and could be revived if e.g. President Niyazov were to be replaced by a more acceptable head of state. Small-scale privatization has gone forward in all the countries, but has not generated enough jobs to date, and the outputs are vulnerable to import competition in 'Dutch' fashion. Many of the larger industrial enterprises producing non-oil tradable goods have attracted little FDI for analogous reasons. Turkmenistan carried out an idiosyncratic privatization of kolkhoz agricultural land involving leases, but kept the Soviet-era state order system for the main crops, wheat and cotton.

Russia has hardened budgets up to a point in the budget and electricity sectors, in that payment discipline has improved, and barter and resort to money surrogates like vouchers are down. However Russia has not allowed foreign participation on any scale in the hydrocarbons sector. Russia has continuously waffled on enabling legislation for production-sharing agreements with foreign firms wishing to invest in the oil sector, and has only one important PSA, dating from 1996, in Sakhalin, not the Caspian. Progress towards a usable PSA framework is expected to be very slow owing to the powers of local and regional governments; in the recent tax reform, new PSAs will very possibly lose protection from changes in rehabilitation duties and excise taxes, as they cannot be grandfathered from them.¹⁵

¹⁵ N. Mikhailov, *op.cit.*

During the era of high oil prices in 2000-01, Russian oil and gas firms earned so much money that they apparently thought they could maintain and expand their own resources without sharing profit oil with foreign investors; indeed they paid for considerable investments with retained earnings and some commercial finance. However significant expansion costing tens of billions cannot be done on the retained earnings of such companies as Gazprom, whose domestic tariffs are kept at a tenth of European levels. Gazprom's output and exports are still falling as it cannot afford to maintain its wells or network.¹⁶

Oil export revenues increased rapidly in Russia, Kazakhstan and Azerbaijan in 2000 and 2001, both on account of the rise in the world price and because export volumes could be pumped up to capitalize on it. Russia managed to increase oil output from a shade over 300 mt in 1998 to an expected 345 mt in 2001 (6.9 mbpd); output of refinery products grew even faster. Oil exports by volume, constrained by high domestic supply obligations, pipeline capacity, and onerous export duties of up to EUR 30.50 a tonne, rose from about 196 mt in 1999 to an expected 235 mt in 2001 (4.74 mbpd), a rise of 19.7%.

Kazakhstan's mineral products exports more than doubled in value and nearly doubled in volume between 1998 and 2000; volumes are set to rise further in 2001 but gross values are certain to fall. The share of mineral products in Kazakhstan's GDP went from 10% in 1998 to some 26% in 2000 (55% of CIS exports and 54% of non-CIS exports). On account of oil alone, Azerbaijan's non-CIS exports nearly quadrupled between 1998 and 2000. Azerbaijan's mineral products exports to all destinations rose from USD 418 million to nearly USD 1.5 billion in the same three years, reaching 30% of GDP; in the first half of 2001 oil exports alone were 92% of exports and equivalent to 47.5% of half-year GDP. Their economies have thus quite recently become much more vulnerable, both to lower oil prices and to swings in oil prices.

¹⁶ Michael Lelyveld, 'Inflation Concerns May Halt Tariff Hikes', RFE / RL online, 7 August 2001, reporting that domestic tariffs are a tenth of world levels. According to the EBRD, in 2000 collection rates in most regions approached 100% at the subsidized tariffs. In *Transition Report 2001*, the EBRD estimates that Russia and other CIS producers will need USD 130 billion to develop their energy reserves between the present and 2010; such sums cannot conceivably be raised locally via retained earnings or raised on bond markets by the likes of Gazprom; they will require foreign participation.

2 Country studies

2.1 Kazakhstan

Kazakhstan's status as an oil producer and exporter is a somewhat recent phenomenon. During the Soviet period and the first years of independence the economy was more of a producer of ferrous and non-ferrous metals, chemicals, coal and grains than of oil, not to speak of gas. In the mid-1990s through 1997 oil extraction (i.e. excluding refining) accounted for less than 20% of industrial production.

Like all former Soviet republics, Kazakhstan suffered a dramatic collapse in measured aggregate GDP, in industrial and agricultural production, and in employment and living standards between 1991 and 1997. The economy ended the first decade of independence with a much altered output and trade structure compared with the late Soviet period, thanks to the very different performances of oil, metals, the rest of industry, agriculture and services. Between 1991 and 1997 output of machinery and vehicles shrank by a cumulative 80%, chemicals by 88%, the food industry by 39%; agriculture by 46%; the recorded private services sector ('paid services') virtually disappeared. Agriculture's share of GDP was 14.9% in 1994 but only 8.6% in 2000, and gross output was a bare half the 1990 level.

Exports to Russia and other CIS countries, Kazakhstan's traditional market, accounted for 58% of total exports in 1994 but only 26% in 1999 and 2000, as the country reoriented to the rest of the world. Non-traditional markets accounted for 42% of Kazakhstan's exports in 1994, but took an average of 73.5% of goods exports in 1999 and 2000.

Improvements in corporate governance were slow, and foreign investors struggled with a non-transparent and unstable legal environment. The PSA to develop Kazakhstan's Karachaganak gas and oil field took a consortium led by Britain's BG and Italy's ENI nearly six years to negotiate.¹⁷ Payment discipline all but collapsed in the aftermath of the Russian crisis, and government and commercial debts rose rapidly.

Still, the economy did bottom, as the commodity-producing sectors of the economy began to increase value-added at post-Soviet prices in 1996-97. This was all to the good, as, according to an EBRD study, the country's comparative advantage in manufacturing and knowledge-based industries was negative or strongly negative as of about 1997, and

¹⁷ Michael Lelyfeld, 'Kazakhstan: western firms avert shutdown of oil production', RFE / RL online, 30 October 2001.

strongly positive and rising in resource-based activities.¹⁸ A very poor grain harvest and the Russian financial crisis caused a setback to GDP and industrial production of about 2% in 1998, and savaged CIS exports, which had been falling in absolute terms already in 1997. Recorded CIS exports plunged 27% in 1998 and a further 31% in 1999 before recovering strongly in 2000 ff. Employment in medium and large enterprises halved between 1996 and 1999.

Evidently, Kazakhstan's economic performance remains closely linked to that of Russia, first, because the two countries sell a similar range of products on world markets and thus saw their exports and current account surpluses rise and fall together. Second, Kazakhstan's apparent trade diversification was partly due to the chaotic financial relationships between enterprises in transition countries, and with greater stability since the Russian crisis, some of these have been revived. Russia's imports from Kazakhstan, 42% of Kazakhstan's exports in 1996, fell 55% in absolute terms between 1996 and 1999, to 19.5% of its exports, a trend that began well before the rouble crisis but was much exacerbated by it. Russia's share of Kazakh total imports was higher and fell less, from 55% of imports in 1996 to 37% in 1999. However these figures are biased downwards since Russia accounts for a much higher fraction of shuttle imports, which represent 30-40% of official imports in value (shuttle exports are negligible).¹⁹

Russia's economy is however much more diversified: it takes the whole range of Kazakhstan's exports, including oil, metals, chemicals, grain, coal and gas. Russia both competes with Kazakhstan on world energy, metals, grain and chemicals markets, and controls a large fraction of the railways and pipelines that take Kazakhstan's products to them. Russia's Transneft and Gazprom had a near monopoly until the launching of the CPC pipeline, but that too has part Russian ownership, crosses Russian territory and ends up in a Russian port on the Black Sea.

Social spending in the first decade of Kazakhstan's transition was poorly focused on poverty, which in Kazakhstan has a strong regional dimension since the lion's share of resource development is in the west, near the Caspian. According to a government survey based on a (relatively low) definition of minimum income, 28% of the population fell below the poverty line in 1999, but over 50% of people living in South Kazakhstan. Thirty-two per cent of those employed in 1999 were self-employed. More internationally-standardized

¹⁸ EBRD, Transition Report 1999, annex 9.1, pp. 178-80, concluded after analyzing performance of net exports to the OECD 1993-97 that Kazakhstan's revealed comparative advantage was neutral and falling in agriculture, negative and falling in capital-intensive heavy industries like steel and automobiles, strongly negative and flat in labour-intensive industries like textiles, and strongly negative and flat in skills intensive industries, but strongly positive and rising in resource-intensive industries. This was the case at a time when non-ferrous metals accounted for 39% of exports and oil 'only' 29%. The comparative advantage in resource industries was so strong that Kazakhstan and the other Central Asian countries had comparative disadvantages in the other four groups despite extremely low labour costs.

¹⁹ *Kazakhstan Economic Trends (KET)*, 2nd Quarter 2001, p. 66.

definitions of poverty yield much higher measures of incidence, e.g. a family budget survey found that 80% of the population was living in poverty in 1996. Poverty by the first definition is much less prevalent in the north, e.g. at 9% of population in 1995. In terms of the number of poor, nearly two out of three poor people lived in the south or east of the country, with the implication that reducing poverty in Kazakhstan is largely a question of improving the opportunities for people in these two areas. Demographic data for 1999 indicate that 40% of males were not expected to live to the age of 60; life expectancy at birth for both sexes was 65.7 years.

Corruption remains one of the most significant features of public life in Kazakhstan, and the rising flows of petrodollars and, now, narco-dollars from Afghanistan will make future improvements difficult. According to the Berlin-based Transparency International Corruption Perceptions Index of 2000, Kazakhstan rated 84th out of 99, placing it in the top fifteen most corrupt states in the world. The only countries of the former Soviet Union that ranked higher for corruption were Kyrgyzstan and Azerbaijan; Turkmenistan was off the charts (not ranked). Leading state officials, including President Nazarbayev, are thought to have received enormous bribes in connection with the country's oil business. According to a 1998 survey of the business environment and of (a wide range of) enterprises in transition countries carried out by the World Bank and the EBRD, 23.7% of Kazakh firms reported paying bribes 'frequently or more'; the 'bribe tax' averaged 4.7% of revenues. About 15% of senior management's time was spent dealing with public officials. Some 42% of firms reported state intervention in decisions regarding prices. Kazakhstan scored better, apparently, than other Central Asian countries and Ukraine and Russia on 'state capture' however, with only 20% or so of the firms surveyed reporting 'significant' or 'very significant' impact on their businesses of sales of parliamentary votes or presidential decrees.²⁰

Corporate governance remains weak, despite legal changes on paper and substantial small-scale privatization. Kazakhstan scored a 2 out of a maximum of 4+ on the EBRD's 2000 scale of corporate governance and enterprise restructuring, defined as 'a moderately tight credit and subsidy policy but weak enforcement of bankruptcy legislation and little action to strengthen competition or corporate governance'.²¹ In the EBRD-World Bank survey, nearly 60% of firms had doubts that the state would uphold their property rights in business disputes.

²⁰ EBRD, *Transition Report 1999*, ch. 6.

²¹ EBRD, *Transition Report 2000*, pp. 14-15.

2.1.1 Economic performance since 1998

Spillover effects from the Russian and Asian crises played havoc with Kazakh output, exports and financial system in the second half of 1998 and most of 1999. Confidence plunged, payments were frozen, CIS exports collapsed and payment arrears and the incidence of barter soared. Total foreign debt went from 44% to 69% of GDP between 1998 and end 2000.²² A dramatic 33% currency depreciation in April 1999 restored some competitiveness vis-à-vis Russia. In the meantime the Russian economy began to recover strongly thanks to its own devaluation, helping Kazakhstan's steel and agricultural sectors. A strong fiscal adjustment programme was begun in 1999 and in 2000 there was a budget surplus.

The devaluation of the tenge and the beginning of restoration of 'normal transition-economy' financial links with Russia coincided with a period of sharp production increases in several energy projects. Thanks mainly to increases in oil export volumes, non-CIS exports grew over a quarter in 1999, a year in which the Brent benchmark price averaged only USD 10.60, and Urals 33, only USD 10.06 per barrel. The current account was in surplus to the tune of 1.1 % of GDP in 1999, and 4.5% in 2000.

Kazakhstan's trade with Russia and the CIS remained very depressed in 1999, not recovering strongly till 2000. In 2000 thanks to higher oil prices and volumes, both CIS and non-CIS exports rose over 60% in value. This combined with a good harvest to revive activity across a broad swathe of the domestic economy. In 2000 recorded GDP grew 9.6%, industrial production rose 14.6%, ferrous metals output rose 23%, and oil, gas and mining industries increased the value of their output by 21.5%.

The first 10 months of 2001 saw these positive trends continue at nearly the same pace, with the exception of exports to the rest of the world, which were flat mainly because of falling oil prices.

Starting in 1999, Kazakhstan's dependence on the oil sector began to rise sharply, notwithstanding good performance in traditionally important sectors steel and copper, which accounted for as much as 7% and 14% of industrial production respectively in 1999. Oil extraction was 23 mt in 1996 and about 26 mt in 1997 and 1998, but it jumped to 30.1 mt in 1999 and 35.3 mt in 2000, a 36% rise in three years.

Extraction of crude and condensate rose 18% year-on-year in January-October 2001, to 32.6 million t. Output for the year 2001 was forecast in September at 41-42 mt by Energy Minister Viktor Shkolnik, though 39-40 mt is more likely given the delay of the CPC launch.

²² Ministry of Finance, quoted by World Bank Kazakhstan website.

The government is dreaming of annual outputs of 100 mtpy by 2005 and 170 mtpy by 2020.

The oil boom, obviously, is transforming the economy's structure. Crude and condensate's share of industrial production increased from 18% in 1998 to 32% in 1999 and to 42% in 2000. Mineral products accounted for 34% of exports in 1997 but 52.8% in 2000 and nearly 57% in the first half of 2001.

Statistics for 2000 all show huge increases in export volume, but the exact details await clarification, and the discrepancies, which may reflect capital flight, make quite a difference to estimates of the impact of recent oil price declines. Oil exports were 15.2 mt in 1998, but leapt to 19.1 mt in 1999. According to the national statistics agency as quoted by US officials, oil exports in 2000 totalled 29.35 mt and had a value of USD 4.502 billion – for an implicit price of USD 20.88 per barrel, cf. Urals blend's average price for the year of USD 24.71. *Kazakhstan Economic Trends* reports 2000 a value for oil and refined products exports of USD 4.8267 billion, but products came to only about USD 101 million, so the gross value of crude oil exports (including condensate) would have been about USD 4.725 billion. The US DOE gives a figure for net oil exports including condensate in 2000 of 23.55 mt, but according to *KET*, Kazakhstan imported (from Russia) USD 572 million worth of oil and products in 2000 and planned to swap 2.5 mt with Russia in 2001. (The large volume of oil imports stems from the fact that Kazakhstan's oil and gas pipelines and electricity networks are fragmented geographically, with e.g. the Pavlodar refinery in the northeast built to run on Russian oil piped from Omsk in western Siberia.)

Oil and condensate exports were reported up 13% year-on-year in January-September 2001, to 23.9 mt, valued at USD 3.293 billion (an implied USD 18.75 per barrel). Assuming USD 14 per barrel oil for the last quarter of 2001, Kazakhstan's oil and condensate exports would gross about USD 4.0 billion in 2001, a 15% decline over 2000 reported gross oil exports despite a 3 mt rise in volume.

The Kazakh authorities deserve some credit for prudent macroeconomic policies, as, after the belated, emergency decision to let the tenge float in April 1999, they managed to keep the exchange rate nominally almost stable and inflation under 10%, and at 13% in 2000, despite the strong domestic and export demand, sterilizing the inflow of at least part of the export proceeds. They also maintained a consolidated budget surplus in 1999 and 2000. Dutch disease remains a major threat for the future, however.

Real exchange rates have been a good deal less stable than nominal ones since the Russian crisis, and competitiveness vis-à-vis Russia continues to be a problem. The tenge's real rate vis-à-vis the rouble soared over 60% between August 1998 and April 1999, as the authorities attempted to insulate the economy from Russia's woes. The float

allowed partial return towards the pre-crisis parity, but from the third quarter of 1999 through mid 2001 the real value of the tenge vis-à-vis the rouble was in a volatile range between 20-30% above the level of end 1995 – hardly good for sales to Big Brother. The tenge remained 30% and 35% lower in real terms vs. the USD in the same interval, but plus or minus 10-15% and on average flat against the euro, owing to the latter's weakness, neutral but not positive for e.g. metals sales to Europe.

Analysis of unit labour costs, however, suggests that Kazakhstani goods were over 40% more expensive in 1999 than Russian goods, a deterioration of external competitiveness much more severe than that indicated by the inflation-adjusted exchange rates. This in part 'Dutch' effect is presumed to have boosted not only shuttle imports from Russia, which compete with local small business along the long border and in the cities, but also to have affected Kazakhstan's export performance on CIS and other markets and as a destination for FDI. For example, in 1998-99 the mining and metals sectors accounted for 35% of exports but attracted only USD 160 million in FDI (under 4% of FDI in 1999), cf. USD 2.3 billion of FDI into hydrocarbon projects. Non-oil exports even declined in nominal terms in 1998 and 1999, mainly on account of the Russian crisis. Metals exports fell 14% in the first half of 2001 year-on-year.

Manufacturing has struggled. Industrial production more than halved during 1990-1999; but some sectors declined by much more than half: light industry declined by 80%; chemicals, by 85%; machinery and vehicles, over 70% and so on. Kazakhstan's revealed comparative advantage as estimated by the EBRD for 1993-97 is definitely not in manufacturing, light industry, capital-intensive or skills-intensive sectors. However the government seems determined to attempt import-substitution. An auto assembly plant to assemble VAZ cars in Ust-Kamenogorsk is a first since transformation began. A similar venture to assemble TV sets was announced in 2000 after output was decimated during transition. How many sets can be profitably sold, given consumer suspicions of domestic electronics, is another question.

Russia is Kazakhstan's main competitor on the European steel market and on global (including Asian) markets for industrial metals and minerals. Its higher profile and scale may allow Russian rust-belt industries to attract more investment for restructuring and energy conservation per unit of output in the coming years, exacerbating Kazakhstan's competitiveness problem in those sectors longer term.²³

High if falling oil prices and increases in extraction continued to underpin robust GDP growth in 2001. Output and industrial production in Kazakhstan rose 14% in the first half of 2001. Agricultural output managed a 4.6% increase during the livestock-dominated first

²³ IMF, *op.cit.*, pp. 37-38.

half of the year. Investment rose an impressive 34%. Oil and condensate production was up 20% on an annual basis, to 19.8 million tonnes, and gas output rose 10% to 6.2 billion cu metres in the first half. This was a performance considerably better than Azerbaijan's and Russia's, where e.g. oil output rose 4% and 7% respectively in the first half, and gas extraction actually fell.

Growth continued to be robust into the third quarter of 2001, decelerating only slightly, to 13.5% for GDP and 13.8% year-on-year for industrial output. Within industry, the growth rate for oil through October decelerated but was still robust, at 14.5% (32.769 mt). Output of oil products was up 34% year-on-year in the first 3 quarters, as more crude was refined at home. Reported exports of oil and condensate in January-September were 23.899 mt, up 13% on an annual basis.

Another boon was a bumper grain harvest, up more than 50% on 2000 levels, at 18.1 million t, vastly better than the 6-14 million tonnes per annum average during most of the 1990s; cereal yields per hectare rose 40%. Harvests are heavily influenced by weather, but the 99-year lease system may deserve some credit.

Rapid growth in measured GDP sucked in imports, from Russia, the rest of the CIS, and the rest of the world. Measured imports from Russia rose 82% in 2000 over 1999, and by 49% in the first half of 2001 year-on-year. Ferrous metals imports (principally from Russia) for example rose 69%. Sales to Russia rose 61% in 2000 but a tepid 9% in the first half of 2001 even though the real exchange rate vs. the rouble fell 15% on an annual basis. Kazakhstan's recorded trade deficit with Big Brother nearly tripled in 2000, reaching USD 675 million. CIS exports as a whole rose 16% in the first half of 2001 thanks to a 50% jump in sales to Ukraine.

Non-CIS imports also increased strongly, rising 45.4% in 2000 and 43.2% in the first half of 2001, on account of machinery imports for the various investment projects, which reached nearly USD 650 million and accounted for 20% of imports by commodity group, all to the good. However, cost and price pressures in steel, the drop in oil prices and the delay in launching the CPC pipeline meant dollar exports to the rest of the world were about flat in the first half.

The current account fell into a deficit corresponding to 2.2% of GDP in Q1 2001 and the overall recorded merchandise trade deficit as of mid 2001 was half a billion USD; this was not yet a problem owing to capital inflows but could cause future concern if export earnings should fall sharply in 2002 in a low oil-price scenario.

2.1.2 Prospects

The speed of further development of Kazakhstan's reserves will depend to a large extent on the level and stability of world oil prices. Historically oil prices have proved impossible to forecast with any accuracy; attempts since the oil shocks of the 1970s by the most experienced specialists such as the International Energy Agency and the US Department of Energy are littered with failure. However, assuming the present recession in the US and Japan spreads to Europe (it has already reached Asia and Latin America) and lasts through 2002, and the Brent benchmark price stays below USD 19 per barrel for an extended period, Kazakhstan's oil revenue will decline even though the CPC pipeline to Novorossiisk is built and loaded a trial shipment in mid October 2001. The pipeline removes the main transport constraint on output from Tengiz; however owing to its late launch it cannot provide much of a boost to revenues in 2001 itself.

Kazakhstan's quota on the 27.8 mtpy capacity new pipeline is given as 19 or 20 mt; though the Russian government owns a 24% stake, the lack of a pipeline linking the CPC with Russia's Transneft pipeline system currently prevents Russian oil from flowing through it. As a result, the Chevron-led Tengizchevroil consortium may be the only bidder for pipeline space in 2001 and 2002, and according to the director, 20 mt of Kazakh oil could flow in 2002. This would free up space on the Transneft system for some of Kazakhstan's lesser producers, many of whose product has too much sulphur for the CPC. Russian oil in the Volga region also has a high sulphur content, and the two countries argued in 2001 over the appropriate discount to apply to certain suppliers' contributions to 'CPC blend'. Kazakhstan and the CPC consortium proposed a quality bank. As there will be no Russian oil in the CPC for a while, it was possible to approve the quality bank in principle without immediately having to penalize autonomy-minded Russian producers with high-sulphur oil like Tatarstan. Another cause of delay in 2001 was Russia's attempt to apply customs duties and port taxes to Kazakh oil and condensate exports on top of transit fees. There were also arguments over the application of VAT on a destination basis, as is the standard recommendation of international agencies like the IMF and WTO but which threatened to subject Kazakh oil and condensate to double taxation. The question of special 'free port' status for the Novorossiisk oil terminal, important for Kazakhstan and the companies but a revenue loss to the Russian fisc, remains to be worked out. That years of preparation and negotiation failed to prevent this slew of 'last-minute' problems has given rise to various Great-Game conspiracy theories.

The TCO consortium led by Chevron that is developing the Tengiz field originally planned to raise output in smooth increments from 10.5 mtpy in 2000 to 17 mtpy in 2005, but according to the US Department of Energy and now ChevronTexaco itself, the ramp-up could be accelerated and first-phase peaks achieved much closer to 2002, with as much

as 22 mtpy by 2005, assuming a USD 2 billion investment programme goes ahead.²⁴ At USD 15 per barrel, 16 million tonnes would be worth some USD 1.76 billion gross, that is, before transit fees, customs duties or reimbursement of the western majors their share of the development costs. According to the IMF, transit fees through the Russian pipeline system are USD 2.70 per barrel (USD 19.845 per tonne) and by rail, USD 5-7 per barrel. As of mid 2001 the bulk of Kazakh oil was being shipped by pipeline, mainly via the Atyrau-Saransk-Samara line north through Russia, which has been upgraded to 14.9 mtpy. Additional supplies go by rail and by barge across the Caspian. Some 70% of Tengizchevroil oil went by rail prior to the commissioning of the CPC, at an above-pipeline cost assumed to be in the region of USD 25 per tonne.

Other fields are also producing or coming on stream. Tengiz, Uzen and Karachaganak accounted for only half of output circa 1997. North Buzachi, Sazankurak, Saztobe and Airankol were due to start up in 2001, and Alibekmola, Urikhtau, and Kozhasai by 2002, according to the USD Department of Energy. The total output of the numerous smaller projects is said to have the potential to rival those of the 'elephant fields' Tengiz, Karachaganak and Kashagan, though it is unclear under what circumstances.

By last quarter 2001 Kazakhstan's daily oil export capacity will rise (2000 net exports were already up nearly 50% on 1999) on account of the CPC. Kazakhstan's share of the new capacity is 19-20 million tonnes per year, so with the CPC up and running in November 2001 (following numerous technical and other delays), Kazakhstan may achieve gross exports of 29-31 mt, and could deliver over 33 mt abroad in 2002, or more if TCO ramps up in non-linear fashion. Gross revenues from 31 mt at an average of USD 17.55 per barrel²⁵ would be some USD 4 billion, or 21% of budget-forecast 2001 GDP.

If one does the thought experiment that Kazakhstan's net per barrel price falls to USD 14 per barrel for the last quarter of 2001 and all of 2002, expected 2001 oil export earnings on an export volume of 31 million tonnes would be down 15% on year 2000 levels, and 2002 earnings would decline by a further 14% even though volumes were 2.5 mtpy higher. Assuming Tengiz ramps up by annual 2.3 mtpy increments through 2005, conservatively assuming static production in other fields, Kazakhstan's oil export earnings could be in the region of USD 3.45 billion gross in 2002, USD 4.5 billion in 2003 assuming a price of USD 17, and USD 5.5 billion in 2004 at a price of USD 19 per barrel. Export volumes in the region of 30 million tonnes imply that the gross value of annual exports changes by some USD 220 million for every dollar change in the barrel price, about 1.1% of GDP.

²⁴ *Wall Street Journal*, 'ChevronTexaco to up Tengiz oil output to 22M tons by 2005,' online, 27 November 2001.

²⁵ This is the January-September quantity annualized times the calculated price on a reported 23.899 mn t of exports of crude oil and condensate, worth USD 3.293 billion, in the first three quarters of 2001 – about USD 4 below the price of Urals crude, but assuming USD 14 oil in the last quarter. Net earnings in recent years have been about USD 4 below the published Urals 32 price, though it is unclear to what extent this represents capital flight.

There is little reason to assume, in our view, that either Kazakhstan or Russia, or some kind of CIS 'parallel cartel' that keeps distinct from OPEC, will make significant cuts in oil exports to help producers keep up world prices – unless they threaten to languish substantially below present levels of ca. USD 19 per barrel. Lower prices of course reduce tax and tariff revenues for Russia and Kazakhstan, but Brent at USD 18-19 spares the other sectors of the economy from some 'Dutch' pressures, while permitting balanced budgets, exchange rate stability and debt service according to schedule. Were those countries to join OPEC in all but name, that would alienate not only the western powers who have recently warmed to Russia, but also to some extent the western oil companies and their bankers, who foot the bills for resource development. Although the latter profit from high oil prices, they fear major commitments in conditions of boom-and-bust volatility or heightened risk of unilateral changes to commercial terms, both of which may be more likely when the national oil company has cartel brothers to back it up. The majors may take their money to Latin America and Africa at the margin – as they are probably already doing post-September 11th, because of the Caspian's high costs and proximity to the volatile Middle East.

Kazakhstan is not only benefiting at present volumes and prices, but will earn much more from hydrocarbons later in the decade, when the first output from the mammoth offshore field Kashagan, not far from Tengiz, may come on stream. Kashagan is estimated to contain between 8 and 30 billion barrels of oil²⁶, which could yield a peak extraction rate of 2 million barrels per day (100 mtpy), 2.6% of world output at 2001 rates. At USD 18 per barrel that would be worth USD 13.2 billion per annum. Kashagan was described in *Petroleum Economist* as 'perhaps the fifth largest oil field in the world and the biggest outside the Gulf, ... the most important discovery since Alaska's North Slope and the North Sea.'²⁷ Kashagan's development timetable and costs are hard to predict, as the field is not fully explored and the geology and ecology are tricky; over-hasty development could damage the structures, while a major spill would be an ecological catastrophe. Even in a benign price scenario, it could take 6 to 8 years (though President Nazarbayev is pushing for 2005) to reach commercial outputs, and then, since it is a production-sharing agreement, the full cash bonanza for government coffers (apart from royalties) will have to wait further, as the foreign members of the consortium who put up and tied up the cash are first owed back their costs in kind.

Kazakhstan's state budget remains vulnerable. The difference in probable gross annual export revenues due to e.g. a USD 7 per barrel fall in the price, such as occurred between August and November 2001, is comparable to 35% of year 2000 federal budget outlays. Consolidated government revenue as a percentage of GDP was very low in the late 1990s owing to shadow activity, non-payment, corruption and high tax rates – though VAT and

²⁶ US Department of Energy, Energy Information Administration, Kazakhstan Country Profile, May 2001, online.

²⁷ Christopher Pala, 'Sleeping Giant Awakes', *Petroleum Economist* April. 2001, p. 18.

social tax rates were substantially reduced percentage-wise on 1 July 2001, under IMF pressure, in a Laffer-like attempt to increase actual tax takings. Already in 2000, the good economic situation boosted tax receipts, and in the first half of 2001 tax revenues rose to 25.3% of GDP compared to 16.4% in 1999. Were oil revenues to remain robust, it would be excellent news for the budget. Corporate Income Tax receipts soared from 0.9% in 1999 to 6.1% of GDP in 2000 and 9.2% in the first half of 2001, thanks to profits in the booming oil sector.

Inflation remains a risk, as it has been repressed by the exchange rate policy, and nominal and real wages have risen. Reported CPI inflation in the first 10 months of 2001 was only 4.5%, and the refinancing rate was lowered two points in late November, to only 9%. This implies some success in fighting Dutch pressures via e.g. sterilization of inflows, and cheap imports.

The new National Fund, which can invest abroad, should sop up some of the increment in oil revenue, though how much exactly is not clear. As of November 2001 it had collected over a billion dollars thanks to further sell-offs of stakes to e.g. ChevronTexaco. It will be hard to persuade the Board to make its funding truly transparent – a proper alternative to populist spending at home or lining the foreign bank accounts of oil executives and the Nazarbayev family.²⁸ A positive trend is that the relevant economic officials – at least those in power before the November reshuffle – appear to understand the country's looming Dutch problem with some degree of sophistication.

Capital flight has been very substantial, estimated by the IMF at 10% of oil revenue, cf. an estimated 25% of Russia's oil proceeds in 2000; the National Bank of Kazakhstan put Kazakhstan's capital flight at a cumulative USD 4 billion for 1996-99. The phenomenon can be expected to continue, though in theory it could taper off as the struggle to succeed President Nazarbayev intensifies as he nears the announced end of his term at mid-decade, as those with millions stashed abroad could find their new riches a political and criminal liability.

2.2 Azerbaijan

As a result of its conflict with Armenia over Nagorno-Karabakh, Azerbaijan lost nearly 20% of its territory and had to make room for 750,000 ethnic Azeri refugees, most of whom live in very poor conditions. Between 1991 and 1997 reported GDP fell 58%. Industrial production, which was in Soviet times quite diversified, shrank by 67%; electricity generation fell by 28%. Real wages eroded by 80% (1991-95). Oil production in 1996 was some 22% below 1991 levels. However with the benefit of the cease-fire in the Nagorno-

²⁸ Seymour M. Hersh, 'The Price of Oil – what was Mobil up to in Kazakhstan and Russia?', *The New Yorker*, 9 July 2001.

Karabakh conflict, a period of steady growth in output began in 1996 from the low base, driven by foreign investment in the energy sector. Measured GDP growth was nearly 6% in 1997, 10% in 1998 despite the Russian crisis, 7.4% in 1999, 11.1% in 2000 and 9.3% in January-September 2001, with 8% forecast for the year as a whole. Despite a near 41% improvement since 1995, recorded GDP in 2000 was still over 40% below the 1991 level.²⁹

After Georgia, Azerbaijan was calculated to have the largest share of unrecorded output in the FSU in the mid-1990s, with shadow activity worth over 50% more than measured GDP itself. Thus, assuming oil and gas production is harder to hide than are other types of output, the heavy weight of oil and gas in the measured economy is overstated.³⁰ As in Kazakhstan, about a third of imports are not recorded; even so, customs duties accounted for 20% of government revenue in 2000. Corruption is a major problem, and has been made worse by poverty, explaining one reason for the IMF and World Bank's current focus on targeted poverty reduction. The State Property Committee was disbanded in 1999 over allegations of mis-privatizing a cement plant, and because it dealt with the discredited Minaret Fund connected to Czech émigré mastermind Viktor Kozeny, a resident of Bermuda. Some well-connected American ex-officials and their families lost tens of millions of dollars: the vouchers they bought from Minaret for a stake in SOCAR became worthless when the State Oil Company was not privatized as promised before an August 2000 voucher expiry deadline.

Azerbaijan differs from Kazakhstan and, especially, Russia in not being a 'mature' producer. Most of its hydrocarbon potential has yet to be explored and proved. Mammoth investments must be made to develop and transport known reserves, so the time-path of future outputs and revenues is highly uncertain. Oil production in 2001, while expected to be up 57% on 1997, could rise 4-fold in the coming decade, but the likelihood has risen that it may not, since e.g. BP may not commit to full development of Phase 1 of the ACG offshore field until the consortium of which it is a member makes a final decision re the Baku-Tbilisi-Çeyhan pipeline, and that will depend on the state of the world economy and oil market in mid 2002, on whether e.g. Kazakhstan has committed supplies from a) current fields and b) Kashagan, and on subtleties like whether Russia can be construed as keeping the CPC pipeline half-empty so that the non-Russian, Azeri-Georgian-Turkish route out of the Caspian will look unnecessary. Without a 'Main Export Pipeline', for the time being Azerbaijan is shipping 'early oil' on the upgraded Baku-Supsa pipeline, and e.g. sent a reported 2 mt in the first 10 months of 2001 northward across Russia to Novorossiisk.

²⁹ Statkomitet SNG, *Statisticheskii Biulleten'* 14 (269), 1st half 2001; *Azerbaijan Economic Trends*, TACIS, Brussels and Baku, 2nd Quarter 2001.

³⁰ However in Chechnya, it is reported that about a fifth of oil is stolen, and in Russia as a whole, about 5% goes missing.

The Aliyev leadership was quick to realize that there was no way Azerbaijan as sovereign state or its national oil company SOCAR could attract commercial or IFI finance on the scale required to develop the oil and gas sectors; foreigners would have to be assured shares of eventual output to compensate them for funding up-front costs. Azerbaijan's agreements with foreign E&P companies have led to commitments of USD 40 to 60 billion to develop the hydrocarbon sector to 2030 or so. The so-called 'deal of the century' signed in 1994 between the international consortium Azerbaijan International Operating Company (AIOC) to develop the Azeri, Chirag and deepwater Guneshli fields (ACG) has a 30-year term and envisages investment of USD 8 billion. About USD 3 billion had been spent by western investors as of mid-2001, mostly on this field. BP is both major shareholder and operator of both the AIOC and the Shakh Deniz gas fields, which are believed to hold reserves of about 620 million tonnes of oil, 800 bcm of gas and 300 million tonnes of condensate.

Unlike e.g. Russia, Azerbaijan has relied on some 20 production-sharing agreements with foreign oil and gas companies in its campaign to attract investment into the energy sector. In 2000 the country resolved to convert all joint ventures to production-sharing agreements in order to attract more investment, since PSAs afford foreign participants more protection from changes in taxes, rules and regulations than do JVs, which basically share costs and profits by pro rata contribution but whose output is subject to the vagaries of national legislation. JVs had also had restrictions put on their ability to export the foreign share of oil directly, contributing to lack of investment in some fields.³¹

PSAs on the other hand create a sort of umbrella over the acreage covered; ideally they 'grandfather' a given project against adverse changes in terms during its lifetime, and can incorporate legislation that may not yet be on the law books of the country concerned. Any oil found is divided according to terms set out in the agreement itself into royalty oil, cost oil, tax oil and profit oil; national legislatures, executives or judiciaries are not supposed to be able to tamper with the terms once the PSA is signed. The foreign contractor does not get title to any oil as it is produced, but rather has rights to a specified share of a residual, profit oil, which may remain after royalty oil for the state, cost oil for the foreign contractor, and any tax oil have been deducted. The foreign contractor gets his exploration and development costs reimbursed up front as cost oil, which ideally he can dispose of as market conditions warrant.³²

³¹ US Department of Energy, Energy Information Administration, *Azerbaijan*, May 2001.

³² Bernard Taverne, 'Production Sharing Agreements in Principle and in Practice,' *Upstream Oil and Gas Agreements*, M.R. David, ed., 1996.

2.2.1 Economic performance since 1998

Azerbaijan's oil output began to increase rapidly in 1998 thanks to AIOC's offshore wells, rising 26.5% in 1998, 21% in 1999 and 1.5% in 2000, to an annual rate of 14.0 mt. (BP, who ought to know, have 2000 output as 14.9 mt.) Extrapolation of rates in the first half of 2001 yields a projected oil output of 14.8 mt, but it could end up closer to flat. Since 1998 about 89% of Azeri oil has been produced offshore. Oil output from ACG is currently about 100,000 bpd (4.97 mtpy) but could rise ten-fold by 2008-2010 given sufficient investment. Construction of the 1 mbpd BTC pipeline is predicated on there being sufficient amounts of oil mainly from AIOC fields; but there are still questions of if, and if so, when. It is hoped that Kazakhstan will commit enough crude to make up the gap. However though President Nazarbayev in March 2001 signed a memorandum of understanding indicating Kazakhstan's interest in participating in the BTC consortium with oil from e.g. Kashagan, there was no iron-clad commitment, but rather ongoing talk of keeping all Kazakhstan's export options open. With the CPC now up and running, the lion's share of Kazakhstan's oil will flow north through Russia in the first half of the decade.

Implementation of Azerbaijan's exploration and production projects is dependent on world prices of oil and gas, the state of Turkish demand and finances, and news from the rigs. Quite a few concessions, including ones led by Pennzoil, then-Amoco, TotalFinaElf, ExxonMobil, Agip and Chevron, have either pulled out on failing to find commercial quantities of oil, or admitted disappointing results which put future drilling programmes into question.³³ Annual rates of FDI in Azerbaijan have fluctuated. Foreigners invested about USD 1 billion in 1997 and 1998, nearer USD 827 million in 1999 and 500 million in 2000. Against expectations of another billion dollar year, FDI as of January-September 2001 was USD 546 million, lower on an annualized basis than in 2000 – though other sources give higher figures.³⁴ Possibly reflecting price declines since the September events, the second offshore well in the Absheron gas field promised under the PSA with Chevron and TotalFinaElf has been postponed indefinitely, the first having cost USD 78 million without finding commercially viable quantities. However the situation could change, as apparently the earliest rig insurable to western standard that could make it to the area is not available until 2004. Caspian exploration and production has been plagued by this sort of problem.³⁵

The state is ever more dependent on oil export earnings, bonuses and taxes on e.g. SOCAR. These financed nearly 50% of state expenditures averaging 7% of GDP during 1995-99, and provided 57% of indirect taxes. SOCAR accounted for 70% of tax revenue in Q1 2001. Budget deficits could be kept relatively low thanks to the windfall, and unlike Russia before or Kazakhstan after the August crisis, Azerbaijan was able to avoid running

³³ John Roberts, op. cit., p. 7.

³⁴ BBC Monitoring, 'Foreigners invested 550m dollars in Azeri economy in 2001', 23 October 2001.

³⁵ *Petroleum Economist*, November 2001, p. 6 and Roberts, op. cit.

up substantial domestic or external debt. Oil bonus payments were kept in a special government account at the central bank, which kept them in an external account, a precursor of the Oil Fund, as part of its forex reserves. Tax arrears were squeezed down in 2001 but are still a problem.

At the urging of a chorus of IFIs, the State Oil Fund of Azerbaijan was established in late December 1999 to receive and look after future oil bonus payments, profit oil, rental payments from foreign oil companies, and revenues from its own operation, but not VAT, profit taxes or excise taxes, which will continue to go into the regular state budget. However as of mid 2001 the fund contained only USD 370,000, peanuts even for a small country; 5% interest on such a sum would cover less than 2% of Azerbaijan's 2000 government expenditure. The fund has since benefited from the sell-off of 10% of the state's half share in the BTC consortium to ENI in October 2001, giving the Italians 5% of the whole; ChevronTexaco are reported to be negotiating to buy a stake as well. Transparency is not assured: the terms of e.g. ENI's promised payment are not disclosed. Meanwhile, a leading Russian economist, asked whether Russia should set up a stabilization fund to manage its petrodollars for the benefit of future generations, wryly observed that only 'mature elites' can be trusted to engage in long-term planning or to be trusted with stabilization funds.³⁶

SOCAR made a quixotic attempt to manage volatility of oil earnings in 1998 by suspending oil exports for a time 'to give prices time to recover'. By 2000 with prices high again, the country switched its power generating facilities from fuel oil to natural gas in order to free up more oil for export, because it had suffered blackouts the previous year and had had to divert export oil to domestic power stations. However Azerbaijan is presently still having to import gas from Itera et al.

Azerbaijan is also a transit country. The state earns transit fees on oil transported by rail or on the upgraded Baku-Supsa (Georgia) pipeline; Azpetrol forecasts transit of 6.5 million tonnes of oil and products in 2001.

The value of Azerbaijan's foreign exports rose 92% in 1999, 110% in 2000 and nearly 80% in the first half of 2001, to over USD 1 billion. According to *Azerbaijan Economic Trends*, mineral products were 55% of exports in 1995, 69% in 1998, 79% in 1999 and 85% in 2000, but 94.3% in the second quarter of 2001. Year 2000 petroleum products alone (virtually the totality of mineral products in Azerbaijan, though not in Russia or Kazakhstan) came to USD 1.465 billion, cf. a dollar GDP of USD 4.9 billion. Export revenues from petroleum products were USD 1.094 billion in the first half of 2001, up 80% year-on-year and equivalent to 47.5% of GDP. If prices averaged USD 25.3 per barrel (OPEC) in the

³⁶ Sergei Vasiliev, interview on strana.ru website, 20 November 2001, in Johnson's Russia List no. 5561.

first half of 2001, a period of 20-dollar prices would reduce revenues during that time by over 20%, and a period of 18-dollar prices, by nearly 30%. Exports to Turkey in the second half of 2001 will be affected by the Turkish crisis, as the manat appreciated some 40% vis-à-vis Turkey at the start of the year. Since mid decade Azerbaijan has had virtually zero recorded trade with Iran, presumably to earn points with the US government, but also because of the longstanding boundary dispute, exacerbated by promising seismics in the contested area.

Azerbaijan's foreign imports stagnated in 1999 and 2000 and actually fell 15% on an annual basis in the first half of 2001; oil equipment imports accounted for about a third of imports.

Trade with the CIS plunged in share as Azerbaijan became ever more exclusively an exporter of oil to the rest of the world, and on account of the manat's much appreciated real rate against the rouble. In 2000 Azerbaijan sent only 16.8% of its total merchandise exports to the CIS (13.5% according to *AZET*); in the first half of 2001 the CIS share of exports fell to 7.5%. Russia's share of its CIS trade is moreover relatively low, at e.g. 42% of CIS exports in 2000 (34% in 1H 2001), a ratio exceeded on the downside only by remote Kyrgyzstan, which shipped a mere 31% of its year 2000 CIS exports to Russia. After plunging 38% year-on-year in value in 1998 due to the Russian crisis and the defence of the nominal rate against the dollar for nearly a full year after Russia devalued against the dollar by 75%, Azerbaijan's CIS exports stagnated in absolute terms in 1999 and 2000, at about USD 220 million. They again fell sharply, by 38% compared to January-June 2000, in the first half of 2001, even though real exchange rate appreciation had been substantially eroded.

The strain on the non-oil sector is severe and will likely grow. The poor performance and declining share of CIS exports is a sign of Dutch disease, as they are almost by definition non-oil tradables. By product category, for example, exports of textiles to all destinations fell 75% in value between 1998 and the first half of 2001 annualized; machinery, agriculture and the food and beverage industry also suffered huge drops in exports and export share.

The tax burden is high and has not been cut sharply as in Russia and, in mid 2001, in Kazakhstan. According to the Tax Law brought into force in January 2001, profits, trading profits, and capital gains are taxed at 27%, with an additional 10% tax if remitted. VAT is charged at 18% on most goods, construction work and services, but not on exports. Import duties vary, but contributions to the charter capital of a joint venture or 100% foreign-owned enterprise are exempt. Payroll taxes total 34%. Extraction taxes are 26% for oil, 20% for gas, 8% for precious metals and 34% for other metals. Oil bonuses paid to the state amounted to 0.8% of GDP in 2000.

Structural reform has been so tepid that international agencies are accusing the country of frittering away its new-found oil revenue on costly subsidies instead of investing it for present and future citizens' benefit.³⁷ Some 80% of Soviet-era industrial plants are not operating, but few are being sold off or put through chapter-11 type bankruptcy workouts. Budgets remain extremely soft. Arrears exceeded GDP in value in the late 1990s, and though there has been a crackdown on arrears, they still exist and could soar again if there is a budget crisis owing to a drop in oil revenue; barter remains rampant. A constant bone of contention with international agencies is that utility tariffs have not been raised to cost recovery, nor have collection rates improved much (unlike in e.g. Russia); this has starved the power sector of investible funds. The grid is in such poor shape that in 1999 though the country produced 16.4 billion kWh of electricity and consumed only 15.4 bkWh, losses of around 20% meant the country had to import electricity (as well as gas).

Some 60% of the population is below the poverty line, with average wages USD 46 per month in 2000, about half the pre-independence level. Employment in industry and construction shrank 41% between 1991 and 2000 even as (unlike in Russia and Kazakhstan) the overall population grew, by 10.3%. Forty-one per cent of the labour force was in neither industry, agriculture or government services in 1999, reflecting the growth of often-precarious self-employment. Small business remains heavily taxed, however, and in the shadows as a result.

The country was self-sufficient in basic foodstuffs in the Soviet period, producing grain, cotton, tobacco, fruits and vegetables, tea and wine grapes, though the latter was much affected by the Karabakh conflict. Cotton production, 540 mt in 1991, was 92 mt in 2000. Azerbaijan also produced about a tenth of the world's caviar, an industry on the verge of extinction owing to poaching.

2.3 Turkmenistan

Turkmenistan's economic figures, which parallel Azerbaijan's in many respects on the surface, are highly untrustworthy. Most official data relating to output, the budget and even the country's population are secret, so that the CIS Statistical Committee reports mostly blanks in its tables on the country and deducts 500,000 persons from the government's population figures. It is rumoured that there are two sets of books, one for planning and a sanitised one for international consumption. Reported inflation data is particularly suspect. Energy revenues have risen sharply since a resumption of gas exports was negotiated with Russia in January 1999; administered wages and prices have been increased, and e.g. food output is said to be inflated, so 'Dutch' and cost pressures on prices may be strong. The gap between the official exchange rate of 5200 manats per USD, which has not

³⁷ EBRD, *Transition Report 2001*, November 2001, press release.

changed since it was pegged to the street rate in April 1998, and the parallel market rate rose from parity at the time to about TMM 16,000 to the USD in mid 1999, 20,000 to the USD at end 2000, and 22,000 as of September 2001. As there is little useful national official or CIS data, this section mostly cites EBRD, ECE, US government and BP estimates.

Economic reform has been about the slowest among all countries of the former east bloc, so slow in fact that using the term 'country in transition' for Turkmenistan is probably unjustified. The economy remains under heavy state control. There are no IMF financial arrangements in place. The EBRD pulled out in mid-2000, as did the last large pipeline consortium, leaving the country increasingly isolated. Price controls and mandatory sales to the state at below market prices (state orders) are rife. President Niyazov, president for life, has ruled out selling off the state oil or gas enterprises till 2015. The low rate of foreign participation is indicated by the fact that in 2000 the state oil company Turkmenneft produced 90.5% of the country's oil output and Turkmengaz produced another 3%, making the share of oil output produced by foreign companies in the several production-sharing agreements only 6.5%.

According to the oil and gas minister, national and independent international analysts put Turkmenistan's hydrocarbon reserves at 45.44 billion tonnes of oil equivalent (toe). Resources in the Turkmen sector of the Caspian Sea (whose boundary remains contested) are given as 18.2 billion tonnes of oil equivalent; of this, oil accounts for 66.0%, and gas 34.0%. BP puts the country's proved oil reserves at 100 mt and its gas reserves at 2.86 trillion cu metres. The US Energy Information Administration puts proven oil reserves at 68 mt and possible oil reserves at 10.8 billion tonnes ; proven gas reserves at 3.65 trillion cu m and possible gas reserves at nearly 4.4 trillion cu metres.

Turkmenistan's dreams of becoming a major gas exporter to Turkey, Europe and Asia have come to nought owing to lack of transport capacity. Gas extraction in the 1990s languished well below Soviet peak levels of 85 bcm a year, primarily because Russia, by then a competitor, controlled access to the Soviet-built Unified Gas Supply System pipeline, and kept export capacity for itself on a variety of pretexts.

Lack of access to world markets via Russia left Turkmenistan having to sell to customers in soft-currency markets like Ukraine, Georgia and Armenia, who frequently paid late, in barter goods of inferior quality, or not at all. Total outstanding rescheduled gas debts owed to Turkmenistan were e.g. some USD 1.3 billion in early 1998. Non-payment of debts led Turkmenistan itself to suspend FSU deliveries on numerous occasions, e.g. for virtually the whole of 1998 in the case of Ukraine, which had accounted for some 80% of export volumes earlier in the decade. As a result in 1997 gas output halved to 16.1 bcm, and in

1998 it was only 12.4 bcm. The country was thus deprived of tax revenue on domestic production, and of foreign exchange and barter imports.

2.3.1 Economic performance since 1998

The main driver of the recent turnaround has been the recovery of gas exports by volume. Though gas prices vary by location owing to differences in Btus and the state of demand on local markets, gas prices as proxied by the EU cif price have not varied in anything like the volatility of the price of oil.³⁸ Turkmenistan achieved record GDP growth in 1999 and 2000, by 12% and 17.6% respectively, the highest in the CIS by far, according to official government pronouncements. GDP was reported up some 19% year-on-year, ostensibly in real terms, in the first 10 months of 2001, with even stronger growth in industry and agriculture. President Niyazov said that exports of all types amounted to USD 3.6 billion in the first 10 months of 2001, up from USD 3.0 billion in the same period of 2000.

Gas output recovered to 22.8 bcm in 1999 and more than doubled in 2000, to 47 bcm according to the government website (BP estimates it at 43.8 bcm), because of the resumption of gas sales to Russia and Ukraine. In 1999 Turkmenistan exported 8.5 bcm of gas, but in 2000 it sent almost 30 bcm to CIS countries alone (20 bcm to Gazprom, 3.5 bcm to Neftegaz Ukrainy and 6.2 bcm via Gazprom's mystery US-registered daughter company Itera.)

Gas extraction in 2001 has lagged below President Niyazov's announced plans at the start of the year. According to state sources, output in the first 9 months was 35.8 bcm, which is 47.7 bcm on an annual basis. However the president had said in January that extraction would be 70 bcm and exports 50 bcm in 2001; contracted for exports were reported at 46 bcm by the oil and gas minister in a November 2001 interview, 30 bcm of which were slated for Ukraine, 10 bcm for Russia, and 6 bcm for Iran. The gas pipeline to northern Iran (Korpedzhe – Kurt Kui) was said to be working at about 20% of its capacity, carrying 1.55 bcm in 2000, so the 2001 rates represent a large percentage increase from a low base for that market.

The 5-year outline accord to supply Russia with 20 (later to be 30) bcm per year, signed in late 1999, was just about strangled at birth, as with world oil prices still at historic highs, Turkmenistan pressed for a price increase from USD 38 to USD 40 per thousand cu m, and an increase in the cash share of settlement from 40% to 50%. Russia contracted to take only half the planned volume, 10 or possibly 12 bcm, in 2001. Still, the Russo-Turkmen agreement may be stepped up in future years, for several reasons. Russian,

³⁸ According to BP, natural gas prices cif the EU did fall in 1999, to USD 1.73 per million Btu, but recovered to USD 2.85 per million Btu in 2000. They averaged USD 2.58 in a narrowish range between 1990 and 1998.

mainly Gazprom, gas extraction has stagnated on account of field exhaustion and lack of maintenance. President Putin and President of the European Commission Romano Prodi announced a programme in October 2000 for doubling Russia's gas exports to Europe by 2020. (Gazprom's sales to the EU were 90 bcm in 2000, and to eastern Europe and former Yugoslavia, 38.6 bcm.) This could leave a potential gap for Central Asian suppliers like Turkmenistan and Uzbekistan on the Russian domestic market, which could be a worthy consolation prize for them, depending on the dynamics of Russian economic growth.

Russia, too, may not wish to alter the balance in its bilateral monopoly game with Ukraine, presently the transit route for over 90% of its hard-currency gas sales to Europe, and the cheapest route to expand, by pushing Kiev into a major diversification. The prime ministers of Russia and Ukraine agreed in October 2001 to a rescheduling of earlier-year debts on easy terms, and set up a mechanism for penalizing illicit siphoning. Naftogaz Ukrayiny is to issue eurobonds to cover its debts and any future late payments and above-quota offtakes, so perhaps the relationship is being regularized at last. Ukraine is to retain full ownership of its pipeline system, the country's most valuable asset.

In May 2001 Ukraine and Turkmenistan inked a deal that is intended to supply Ukraine with 250 bcm of Turkmen gas over 5 years at USD 42 per thousand cu m, half in cash. The country that was the CIS's biggest delinquent thus has again become Turkmenistan's principal trading partner. At 2001 announced volumes, Ukraine will account for 65% of Turkmenistan's gas exports. Ukraine's gas debts to Turkmenistan were restructured in August 2001, only a few months into the 2001 agreement.

How much revenue the Turkmen state gets from these sales is a state secret. Boris Shikmuradov, one-time foreign minister and ambassador to China, said that public funds disappeared down a "black hole".³⁹ The Foreign Exchange Reserve Fund, an off-budget item, has been estimated to hold assets worth some 60% of GDP.⁴⁰ At USD 42 per thousand cu m, gas exports of 46 bcm in 2001 would be worth USD 1.932 billion gross, cf. a GDP in 2000 estimated by western analysts at USD 4.4 billion. However the gas must be piped through Uzbekistan, Kazakhstan, and Russia, subject to transit fees and using up gas to pump the product along, the whole way. Only half of Ukraine's imports are to be settled in cash, the rest in difficult-to-value barter goods. Since Turkmenistan is dependent on the pipeline systems of others to get the gas to the customer, RAO Gazprom and the national gas transportation companies of Uzbekistan and Kazakhstan have near-monopoly pricing power. According to the latest EBRD *Transition Report*, Gazprom is gouging Central Asian producers, paying e.g. Turkmenistan considerably less than the western market price netted back to the Turkmen border and keeping most of the profits for itself. According to

³⁹ David Stern, *Financial Times*, 28 November 2001.

⁴⁰ Annette Bohr, 'Independent Turkmenistan: from post-communism to sultanism', conference paper, Central Asian and the Caspian Basin: a decade post-independence, University of Edinburgh, 7-8 December 2001.

an industry newsletter, *Itera* in spring 2001 was getting 40% of the value of Turkmenistan's export gas as a transit fee.⁴¹ In the mid 1990s Turkmenistan was earning less than a quarter of the nominal proceeds of its gas exports in cash.

Though gas is its most plentiful hydrocarbon, Turkmen oil production has also been rising, from 4.1 mt in 1995, to 7.1 mt in 1999 and 7.4 mt in 2000. Oil production rose another 12% in the first 3 quarters of 2001, to an amount corresponding to 7.9 mt on an annual basis. The Dragon Oil project in Chekelen announced an output of 7500 barrels per day (372,500 tonnes per year). If one may apply the average revenue realized by Kazakhstan in the first three quarters, USD 137.8 per tonne (USD 18.75 per barrel) and an expected USD 14 per barrel for the last quarter of 2001, that volume could be worth about USD 1 billion gross as well.

In 1999 and 2000 President Niyazov attempted to persuade western investors to finance new pipeline routes to counter the effects of low revenue on (subsidized) domestic sales and Russia's monopoly on the UGSS pipeline. However bargaining was marked by unrealistic, often bizarre expectations and unwillingness to compromise. Niyazov's stonewalling coincided with the Shakh Deniz gas discovery off Azerbaijan in May 1999, and by Azerbaijan's consequent insistence on a share of the capacity for itself, whereas before it had been expecting to earn mainly transit fees. Engineering consortia members GE and Bechtel, their bankers, and e.g. Shell Oil made financing the Trans-Caspian Gas Pipeline project contingent on Turkmenistan reaching agreement with other suppliers like Azerbaijan and Kazakhstan on volumes, and transit countries like Georgia on transit fees. Turkmenistan's ongoing dispute with Azerbaijan over ownership of fields in the centre of the Caspian did not aid this negotiation, and the quarrel over acreage in the centre of the Sea remains unresolved as of December 2001. The upshot was that sufficient gas volumes are likely to be available closer, geographically and in terms of the number of intervening states, to Turkey. The Russo-Turkish Blue Stream under-Black Sea project to northern Turkey also secured financing. Pipe-laying is forging ahead and the line is expected to be operative in the first quarter of 2002.

In any event, Turkey's economic crisis of 2001 has meant downward revisions to projected Turkish demand in coming years. Prior to Turkey's February 2001 over 50% devaluation and protracted negotiations with the IMF, Turkey had been expected to increase gas consumption from 14.5 bcm in 2000 to 42 bcm in 2005, 55 bcm in 2010 and 83 bcm by 2015, but it has PSAs in place to deliver over 50 bcm already, including 16 bcm from Blue Stream, 10 bcm from Iran, and 6.5 bcm from Azerbaijan. According to Terry Adams of CERA, founding president of AIOC, Turkish demand will likely be between 23 bcm and 28 bcm in 2005, and 38 bcm-45 bcm in 2010, with a bias towards the low end of each

⁴¹ Michael Lelyveld, 'Ukraine: Turkmen Gas Accord May Also Benefit Russia,' RFE/RL online, 21 May 2001, citing Petroleum Argus.

range, so that competition to supply its domestic market will be fierce. Turkmen supplies are superfluous under these scenarios: the USD 2.5 billion, 16 bcm Trans-Caspian undersea gas pipeline linking Turkmenistan to Turkey via Azerbaijan and Georgia was already in mid-2000 a dead project. Even had President Niyazov not alienated Bechtel and GE Capital with his demands for excessive signing bonuses, the Azeri discoveries and Turkish economic crisis would likely have sunk it anyway. Turkmenistan is thus not party to the projects which will deliver increased volumes of gas to Turkey and Europe, and link the Caspian Sea to the Mediterranean, but is stuck with its traditional markets in Russia and Ukraine in the first instance, with hopes to increase energy exports to Iran at the margin. A gas pipeline south across Afghanistan to Pakistan and India, a project abandoned by sponsor Unocal in 1998, when no bank would talk to anyone suggesting making a major investment involving so unstable a country as Afghanistan under the Taliban, seems unlikely to be revived post-September 11th, unless by some miracle a sea change in the political culture of the region occurs as it is, hopefully, rebuilt by western and international donors.

The rest of the Turkmen economy is in dire straits, though hard information is sparse. Forty-four per cent of the population was employed in agriculture in the mid 1990s, and glowing output figures such as bumper cotton and grain harvests in 2000 and 2001 are probably propaganda in the Stalinist mode. Half the irrigated land is planted in cotton, making it the world's 10th largest producer, but the country is undergoing a progressive desertification, increasing the social cost of the much-criticised cotton monoculture enracinated in Soviet times. Water from the Amudarya is a contentious issue along the border with Uzbekistan. Cotton output was planned at 1.3 mt in 2000, claimed to be 1.03 million t, but widely whispered to have been considerably lower owing to drought. Despite the water-poverty of the country, President Niyazov claims to have plans to raise cotton production to 3 mt by 2010.

The legal regime for business bears all the traces of the country's unfavourable political legacy from communism and before. The restrictions on foreign currency transactions and the burden of policing a dual exchange rate system have deterred investment. Foreign investors (who are narrowly defined) who invest in the resource sector pay a 25% profits tax and a negotiable royalty. Both joint ventures and PSAs exist, but e.g. Dragon Oil, which inherited a JV, was forced to renegotiate it into a PSA; it now wants to scale back its exposure in Turkmenistan. Foreign investments must be approved by the State Agency for Foreign Investment in addition to the relevant state party such as Turkmenneft or Turkmengas. In 2000 the government greatly expanded the list of goods subject to import and export taxes and began to require that all foreign trade invoiced at over approximately USD 800 must go through the state commodities and raw materials exchange (SCRME),

which had to approve and register such transactions, charging a fee to do so. International arbitration is provided for, but is not generally binding and is virtually unenforceable.⁴²

The EBRD suspended operations in the country in 2000 when President Niyazov refused to meet a senior EBRD officer who had flown to Ashgabat to discuss the pace of economic and political reform. As of June 2001 foreigners wishing to marry a Turkmen man or woman must own an apartment in the country and pay the state USD 50,000 for the privilege. In October 2001 President Niyazov outlawed all opera and ballet, claiming that the semi-nudity of the players offended his countrymen's moral principles. A giant monument to the country's eternal neutrality graces a square in Ashgabat, with a golden statue of Turkmenbashi Niyazov atop it, turning ever to face the sun. At the turn of the millennium the parliament clamoured to make Niyazov president for life, though he has since vowed to step down in 2010, when he will be 70. The ex-foreign minister described the country as a "primitive police state with the only purpose of President Niyazov's political survival", and some say the US and Europe would be glad of a coup against Niyazov despite the instability in the region, on account of the president's human rights record, his using of the country's famed neutrality to cosy up to the Taliban, and the vast volume of drugs, possibly half the volume into Europe according to the UN, that passes across Turkmen territory.

2.4 Russia's Caspian regions

Russia's Caspian regions (oblasti) are normally considered to be the littoral regions (a) the Republic of Dagestan, formerly in the North Caucasus raion (district), which hosts the Caspian port of Makhachkala and the ancient city of Derbent, (b) the Republic of Kalmykia, and (c) the Astrakhan region. In their areas approaching the coast, they are geologically part of the Caspian depression.

President Putin signed a decree on 23 June 2001 renaming the North Caucasus federal district the Southern district and adding to it. Putin's presidential envoy to that district, General Viktor Kazantsev, explained that he had requested the redesignation of the North Caucasus okrug because it was to include Astrakhan and Volgograd Oblast as well as Kalmykia, which were not part of the North Caucasus. The governor of Volgograd region was upset that his region was being placed in the North Caucasus, arguing that Volgograd (previously Stalingrad) was part of the Volga interregional economic association and the Volga river system (including the Volga-Don canal) was the natural route out of it. Evidently the administrative reshuffle was in part to diminish the weight of Chechnya and in another to gather the hydrocarbon-rich Caspian areas under a single administrative umbrella.

⁴² EBRD, *Turkmenistan Investment Profile* April 2001.

Astrakhan oblast, where the Volga flows into the Caspian Sea, is at the centre of the onshore part of the Caspian depression. The region began to be a more important oil producer in the 1990s. Population in 1999 was 1,029,300, with 512,000 living in the city itself. Astrakhan oblast's crude oil output was 771,000 tonnes in 1990, 1.072 mt in 1991, 1.439 mt in 1995, 1.843 mt in 1997, 2.671 mt in 1998 and 3.073 mt in 1999, a near four-fold increase since the late Soviet period. This may be set against a national output total of 305.167 mt in that year, making the oblast's share about one per cent. However since Russian oil production (including condensate) in 1990 was 516 million t, the region's rising relative weight has been affected by the plunge in the denominator as well. According to Russian Federation statistics, 55% of the oblast's industrial production in 1998 was from the fuel industry. Astrakhan oblast produced 8.7 bcm of natural gas in 1999 and 9.8 bcm in 2000, a rise of 12.2%. Other industries include chemicals and spirits production: its vodka industry boomed in 1999. Industrial production as a whole grew 13% in 2000. Average wages in November 2000 were 2186 roubles. The region has a bad reputation among foreign investors as a 'red' area.

The Republic of Dagestan (which is bordered by Chechnya to the west) had an inverse evolution to Astrakhan oblast's in its energy sector in the 1990s, though it has unexploited reserves of clean oil offshore which may be developed in future. Dagestan's oil production peaked in 1970, halving by 1975 to a little over a million tonnes, drifting down to 636,000 tonnes in 1990 and stagnating at between 330,000 and 360,000 tonnes between 1994 and 1999. The region has a population of some 2 million, divided into 30 main ethnic groups and numerous sub-tribes; the indigenous groups are traditionally Muslim; most speak Caucasian languages, although e.g. the Kumyks and Nogai speak Turkic languages; Russian is lingua franca.

The Chechen conflict next door has held back recovery of an already poor region, with many resources diverted to care for refugees. There have been several military incursions, notably in 1999, and bombings of the pipeline from Baku, most recently in August 2001, ostensibly by Chechens wishing to steal oil. The rail and pipeline link from Baku to Novorossiisk crosses Dagestan, now benefiting from the Grozny bypass built by Transneft. The merchant marine and fisheries port at Makhachkala, which does not freeze, has been upgraded to handle transshipment of oil from tankers to rail.⁴³ Industrial production grew 20.3% in 2000. Average wages in November 2000 were 968 roubles.

Kalmykia was part of the Volga District prior to the reorganization of June 2001. The Kalmyks are a Mongolian ethnic group, originally Buddhists; the autonomous republic had a population of 175,000 in the mid 1990s. The steppe economy was mainly livestock based, but there is little food industry. Kalmykia produced 486,000 tonnes of oil in 1975,

⁴³ Judith Robinson, 'Economic Overview of the Republic of Dagestan', US government Bisnis online, January 2000.

and a similar amount, 455,000 tonnes, in 1990. Oil output declined steadily throughout the 1990s to 242,000 tonnes in 1999; even so, the fuel industry accounted for nearly half of industrial output in 1998. The region suffered in the aftermath of the 1998 crisis: industrial production fell 17% in 1999 and went nowhere in 2000. Average wages in November 2000 were 1390 roubles.

The Kalmyk administration under FIDE President Ilyumzhinov is under investigation by Moscow for diverting regional funds to a) a football team and b) a chess tournament, instead of funding water rehabilitation and children's allowances. A journalist investigating corruption at the top was lured to an interview and murdered in June 2001.

According to the US Department of Energy's Energy Information Administration, Russia's regions 'near' the Caspian Sea contain 2.7 billion barrels (370 million t) of proven oil reserves and 14 billion barrels (1.9 billion tonnes) of possible oil reserves; they give no data on gas reserves. The EIA data are inconsistent with the output figures by region of the Russian Federation, and thus await clarification. However the E&P records of nearby Tengiz and Kashagan may augur well for the Russian section of the sea itself. Lukoil is drilling in the Severny field but has not made any results public as yet.

3 Prospects in light of the September events

Prior to the events of September 11th, the base-case scenarios for e.g. Kazakhstan and Azerbaijan extrapolated the relatively benign situation of early 2001. At that time, the world economy was expected to decelerate but possibly not to fall into recession, and growth rates were expected to pick up again in 2002. The Brent benchmark oil price was expected to soften some, but not fall below USD 20 for any length of time. A mild growth slowdown or shallow recession in the US, spreading to Europe, Latin America and east Asia, would have meant not only relatively predictable, steady growth in demand from Europe and Asia for exports of oil, gas and metals from e.g. Kazakhstan, but steadily growing demand in Russia for the Caspian countries' exports of these and other products – always assuming their currencies' competitiveness vis-à-vis the rouble did not change radically.

However, the September 11th attacks are now a fact of history, the world economy is reeling, and the relatively high, stable oil price scenario is not going to happen. By late November some commentators were even predicting the de facto demise of OPEC and an era of much lower oil prices, and a scenario in which the OECD countries as the principal beneficiaries of cheap fuel would then embark on a major campaign to compensate non-OPEC losers such as Russia for their co-operation in weakening the hold of Saudi Arabia et al. over the rest of the world. This scenario looks remote in light of Russia's December announcement of plans to cut production by 150,000 bpd in first-quarter 2002,

but it remains to be seen whether the government can force its privatized companies to comply with this, against their short-term interests.

The oil price bust of the late 1990s was triggered by the Asian crisis, but things soon completely reversed, and the Brent benchmark rose briefly above USD 35 in September 2000. Lower prices do not just depend on there being a major slowdown in the world economy. The Middle East has vastly greater proven reserves than the Caspian, which according to most experts is more on the order of a superior North Sea or a Mexico, than a second Saudi Arabia / Persian Gulf. Iraq for example could apparently double its oil exports to 6 mbpd, cf. a current Middle East oil production of around 22 mbpd, in five years if sanctions were fully lifted and western companies were allowed back.⁴⁴

One consequence of the September 11th crisis has been that the Brent benchmark spot oil price fell by about a third, from USD 26.68 on 31 August 2001 to USD 18-19 per barrel in late November 2001. Prices were pressured by the world slowdown, the collapse in air travel, and the Russian oil majors' disinclination to make anything but token cuts to daily production and exports, as OPEC had urged them to do. If oil should stay below USD 18-19 or fall even further in a scenario of deeper recession or an eroding of OPEC's influence, the Caspian states will definitely feel the pinch.

The value of Kazakhstan's oil exports varies by about USD 200-220 million for every dollar change in the oil price. The value of Russia's oil exports varies by about USD 1.5 to 1.7 billion, and of government revenue, by USD 1.5 billion, about six-tenths of a per cent of GDP. The effect on Azeri export revenues is about USD 50-60 million per dollar difference in price.

Russia's Urals blend tracks the Brent price fairly closely, but the Caspian states do not earn that price in full, first because CIS domestic prices are way below world prices despite improvements in payment discipline and moves to loosen price controls, and, second, because of the sizeable bites taken by transit fees.

Some of the E&P projects may not now proceed according to the time frames assumed earlier in 2001. On the one hand, the Tengizchevroil onshore joint venture TCO recently affirmed it planned to ramp up crude and condensate output from 10.5 mt of oil per year in 2000 to 22 mtpy by 2005 and conceivably to 34.8 mtpy by 2010, using the CPC to deliver product to Novorossiisk. (A rate of 19 mtpy by 2005 is also cited by company officials.) TCO is apparently going ahead on schedule in February 2002 with the next phase of expansion involving an expensive condensate plant. Since USD 2.6 billion has already been sunk in the CPC pipeline, the director-general claims it will be used at its full initial

⁴⁴ Julian Lee, 'Regional Energy Resources and Production in the Middle East and Central Asia / Caspian Basin Regions', International Energy Security conference, Berlin, November 2000.

capacity of 28.2 mtpy by March 2002 (presumably mostly by TCO producers) in an effort to recoup costs. TCO could also apparently have enough product by mid decade conceivably to send some oil via a Baku-Çeyhan route to the Mediterranean, though that is unlikely owing to the differences in sulphur content, requiring the oil to undergo expensive extra processing before being mixed with Azeri product.

Kazakhstan's nearby offshore Kashagan elephant field will almost certainly be developed more slowly than e.g. President Nazarbayev has said is acceptable, first for technical reasons, but in light of recent economic events, now also more probably for commercial reasons. This could strain the government's somewhat tense relationship with foreign members of the consortium, led for now by ENI. On the other hand, a period of low oil prices may scare the Nazarbayev regime into less arbitrary treatment of foreign investors than was the case in 2001 – in September 2001 the president spooked them by calling for existing agreements to be reviewed, hinting at abrogation of preferential tax breaks and rights to have disputes heard in international courts of arbitration.⁴⁵

Turning to Azerbaijan, in May 2001 consortium leader BP announced that the Baku-Tbilisi-Çeyhan (BTC) 1 million bpd pipeline, designed to carry Caspian oil to the Mediterranean, had passed a major internal profitability test; the result of it being deemed commercially viable was that the consortium gave the go-ahead for a USD 150 million detailed engineering study of the exact route. At the time it was said to be possible to complete the BTC by late 2004 and have it operational by the first quarter of 2005, at an initial annual capacity of 50 mtpy.⁴⁶

The economics of the Azeris' Main Export Pipeline are not entirely robust. Apparently even the AIOC might do better using the revamped Baku-Supsa (Georgia) or an Iranian route, or even by sending additional supplies via Novorossiisk, as e.g. Baku-Supsa is thought to involve transit fees of about USD 2 per barrel vs. USD 4 for the proposed route to Çeyhan (though apparently the World Bank team in Georgia was of the view that Georgia sold itself too cheaply on this point, having urged them to seek rents of no less than USD 5 per barrel in order to balance the government's books.) As the AIOC may have production costs in the region of USD 5 per barrel, a transit fee of USD 2 per barrel would make an enormous difference to earnings over the planned 30-year life of the consortium's main asset, the ACG offshore field. Under pressure, Azerbaijan agreed to accept lower transit fees in the initial years of low volume to keep the project afloat. What the price drop after September 11th does to the economics cannot be good.

BTC's projected profitability is also a function of Kazakhstan providing substantial supplies, as Azerbaijan is not expected to have sufficient volumes to fill it by 2005, or even 2008-10,

⁴⁵ Michael Lelyveld, 'Kazakhstan: Government Policies Threaten Foreign Holdings', RFE / RL online, 17 August 2001.

⁴⁶ John Roberts, 'Caspian Overview: Bringing the Oil and Gas to Market', *Petroleum Economist*, April 2001, pp. 20-21.

or even later, and/or could well be committing various amounts by 2005 to other routes such as the CPC or an expanded Baku-Supsa route.

However Kashagan operator ENI announced a month after September 11th that it had bought a 5% stake in the BTC consortium, so one can perhaps assume some of the Italian company's future Kashagan (or other) oil has indeed been committed to Baku-Ceyhan. Also, Texaco's North Buzachi field may have need of it. Meanwhile it has become clearer that a gas line for Azeri gas from BP-operated Shakh Deniz could share the same route as the proposed BTC oil pipeline for part of the way, to Turkey's eastern gas hub Erzerum, enabling economies of scale to be gained re land acquisition and construction costs. Thus on balance it seems that the BTC will be built even if there is a period of low oil prices in 2002, since adequate extra supplies from at least the western operators in Kazakhstan are likely to be forthcoming by the time the BTC is ready in say 2005, and prices obtaining so long in the future are impossible to predict. However if there is a serious oil price war or other event that depresses e.g. BP's top-line oil and gas revenue projections for its Azeri projects for years to come, all bets are off.

As of early 2001, Russia was perceived as playing an openly strategic game with e.g. Azerbaijan and Kazakhstan, with officials such as Deputy Foreign Minister and Presidential Deputy on Caspian Sea Issues Viktor Kaluzhny making public promises to take increased volumes from their oil companies on the CPC and older export routes over Russian territory if they did not commit supplies to BTC. However even before September 11th, strategic considerations may have been beginning to reduce Russian objections to non-Russian routes such as Baku-Tbilisi-Ceyhan. Russian producers in the Russian part of the Caspian and participants in various consortia, such as Lukoil, which has a field that straddles the Russian-Kazakh zone, began tacitly to admit they might one day need the extra capacity, and would certainly be harmed by a tanker accident in the Bosphorus. Their interests as producers are not coincident with those of e.g. government majority-owned Transneft and part-owned Gazprom, who are virtual monopolists on oil and gas pipeline routes across Russian territory and thus gouge their own producers as well as foreign ones, though to a lesser extent because tariffs and quotas are regulated to favour domestic producers.

President Putin currently does not appear to have much to gain in terms of either power at home, goodwill from the west, or FDI, from being seen openly to defend Russia's infamous local monopolists to the detriment of those wishing to use non-Russian transport routes out of the Caspian. This is despite the fact that e.g. his minister Kaluzhny has long mocked the BTC as a politically-motivated white elephant. Well before September 11th, e.g. in his 'mission statement' made while still Prime Minister, Vladimir Putin gave out that Russia's national interest was most importantly served by attracting know-how, FDI and flight capital back to the economy in order to modernize it. This view of Putin as mafia- and monopoly-

busting modernizer has been strengthened by events since the September attacks. The improving climate for western energy investors in Russia was acknowledged in November 2001, when a consortium led by ExxonMobil announced new commitments worth USD 4 billion to carry out stage one of expansion of its Sakhalin 1 field off Japan, Russia's only important PSA.

Turkey is the main beneficiary of BTC in terms of both ecology (bypassing the Bosphorus) and in earning transit fees once completed. The Turkish planned state contribution is only USD 1.4 billion out of a project estimated by western experts at USD 3.0 to 3.3 billion; guarantees in the event of cost overruns are deemed insufficient, and current projects in the Caspian have often had overruns of double the estimates, for reasons such as Soviet-built infrastructure that is uninsurable for western equipment and rigs. However the IMF emergency package for Turkey has partially allayed fears about Turkey's economic outlook, as would a peace treaty between Azerbaijan and Armenia in resolution of the 13-year old Nagorno-Karabakh conflict. A deal could unleash substantial UN and bilateral reconstruction funds for Azerbaijan. Be that as it may, the oil majors' financial commitment, tweaked at the margin by e.g. US government guarantees, is crucial for BTC, and could outweigh any impact of uncertain Turkish finances and growth prospects in 2001-02.

Supplies via the CPC from 2002 will greatly increase demand for tanker passage from the Black Sea south through the Bosphorus (assuming Russian and Ukrainian domestic demand does not rise fast enough to sop it up), with the accompanying environmental liability premia. An accident, terrorist or otherwise, near a city of 12 million people would be catastrophic. Supertanker traffic is expected by the Turkish authorities to rise from an average of four 200-meter long ships through the Bosphorus per day, to ten a day by 2010 when the Kazakh onshore fields are at full capacity. Meanwhile ENI has taken out a half-billion dollar insurance policy to cover its E&P in Kashagan, an ecologist's nightmare of shallow water, huge waves, temperature changes, and crude and gas of high sulphur content.

Despite the re-election of President Khatami, an early rapprochement between the US and Iran appeared remote prior to September 11th, dependent as it was on the balance of influence between the civilian and clerical authorities within Iran itself. The Turkish crisis / 50% lira devaluation of January 2001 was thought a negative for the BTC because of the slim possibility that US objections to an Iranian route might be overcome in the meantime. The wild card remains that improved relations between the Bush administration in the US and Iran could still change the economics of exporting Caspian oil, because a pipeline from the Caspian through Iran to the Persian Gulf remains the shortest and cheapest route, much cheaper than the BTC and less ecologically dangerous than the Black Sea options. Moreover an Iranian route is favoured by the continental oil majors, explicitly by the French and Italians (TotalFinaElf and Agip and their governments). BP Amoco after being a

sceptic on the economics of BTC as of mid 2001 had become a strong supporter, on account of the synergies with its gas export plans for Shakh Deniz; nevertheless the head of the company Sir John Browne in June 2001 reiterated that BP Amoco was not a US company and remained keen to develop its Iranian options. However a warming of US-Iranian relations sufficient to remove US objections to an Iranian route does not as of early December 2001 appear a likely outcome of the war on bin Laden and the Taliban. In June, before the September attacks, the House of Representatives renewed sanctions against Iran (and Libya) for five more years, three years more than the Bush team had lobbied for. There just might be a surprise for Iran coming out of the campaign against al-Qaeda and the Taliban, as Iran is a traditional religious foe of Afghanistan and is thus on the same side as the US and Russia in the Afghan conflict. However the Bush administration has recently reiterated the views of previous administrations that Iran and Iraq sponsor terrorism, so the status quo which rules out US companies' participation in opening up a southern route appears likely to persist for some time yet.

Since September 2001 the paths of Kazakhstan and Azerbaijan appear to be diverging, and their interests to be less coincident vis-à-vis Russia and the west. With the opening of the CPC, Kazakhstan's oil exports (until e.g. Kashagan comes on stream) are no longer capacity constrained, whereas Azerbaijan's remain so. Russia's Transneft will also gain capacity it can allocate to other exporters, as Kazakh oil from Tengiz and Russia's Caspian and Volga region producers switch over to the CPC.

Longer term, Kazakhstan's and Azerbaijan's economic prospects are potentially very bright. Though oil revenues will fall in 2002 year-on-year in just about any price scenario, and possibly also in 2003, they are already much increased from 1999 levels. However the two economies have rapidly become highly leveraged to oil prices. An idea of how vulnerable they may be to price volatility is that the decline in the annualized gross value of their oil exports due to a USD 7 per barrel price drop – such as occurred between September and November 2001 – compares to 35% of Kazakhstan's year 2000 consolidated government expenditure, and to 43% of year 2000 government expenditure in Azerbaijan.

Inequality will be an increasing problem in the Caspian CIS states, with possible political consequences especially for Kazakhstan, as the wealthy hydrocarbon-based industries and regions in the west pull away from the depressed south and east. Later in the decade, Russia, Ukraine and China, and e.g. Turkey and Iran may have reformed enough to serve as fast-growing markets for Kazakhstan's non-oil exports, including steel, grain and natural gas. However Kazakhstan's competitiveness in these sectors is under threat, as recent tepid export performance during Russia's CIS trade boom indicates. It is far from certain that a squabbling, unpopular élite that needs to maintain its regional alliances can successfully fight the protectionist pressures which Dutch disease gives rise to.

Turkmenistan has basically been forced to abandon its non-fuel sectors, except for cotton, which survives thanks to false pricing of water inputs. Azerbaijan's formerly diversified industrial base is under severe threat owing to slow reform and competition from Russian, Turkish and other imports.

The successful countering of 'Dutch' pressures is virtually the problem of transition itself. To preserve and develop what remains of the non-oil sectors of the FSU economies will require that they harden enterprise budgets, create a much more attractive climate for domestic investment and FDI, and work out monetary, fiscal and exchange-rate policies which will allow domestic producers to sell successfully at least on their own markets.

In the much longer term, economic development in e.g. Kazakhstan will be affected by the extent to which it can achieve increased sales not only to Europe and Russia but to the rest of Central Asia and China. The likely economic and political behaviour of Kazakhstan's land-hungry eastern neighbours with fast-growing, dense populations, such as Uzbekistan and China, is hard to predict, but could be problematic and involve trade, territorial and water disputes.

Table 1

Commonwealth of Independent States: Selected Economic Indicators, 1991-2001

	Armenia	Azerbaij.	Belarus	Georgia	Kazakh.	Kyrgyz.	Moldova ¹⁾	Russia	Tadjik.	Turkmen.	Ukraine	Uzbek.	CIS
Population present, mn, 1 Jan. 2000, CIS data	3.8	8.0	10.0	5.1	14.9	4.9	3.6	145.9	6.1	5.2	49.7	24.6	281.9
Population projection for 2050, US IDB	3.5	10.7	8.3	4.5	21.0	9.0	4.8	118.2	16.6	9.6	37.7	48.6	292.6
Male Life Expectancy at birth, 2000-05E, years	70.3	68.7	62.8	69.5	59.6	64.8	60.2	60.0	65.2	63.8	62.7	66.8	.
Infant Mortality Rate per th., 2000-05E	15	29	12	18	42	37	43	17	53	49	15	37	.
GDP at exchange rate, USD bn, 1997	1.6	4.0	13.3	5.0	22.2	1.8	1.9	428.4	0.9	2.7	50.2	14.7	546.6
GDP at exchange rate, USD bn, 1998	1.9	4.4	13.6	4.9	22.1	1.6	1.7	282.3	1.3	2.7	41.9	14.9	393.5
GDP at exchange rate, USD bn, 1999	1.8	4.0	11.0	2.8	16.9	1.2	1.2	193.2	1.1	3.3	30.8	16.4	283.8
GDP at exchange rate, USD bn, 2000	1.9	4.9	10.3	3.1	18.3	1.2	1.3	251.2	1.0	4.4	32.2	10.8	340.5
GDP at PPP, USD bn, 2000, CIA est.	10.0	23.5	78.8	22.8	85.6	12.6	11.3	1120	7.3	19.6	189.4	60.0	1640.9
GDP per capita at PPP, USD, 2000, CIA est.	3000	3000	7500	4600	5000	2700	2500	7700	1140	4300	3850	2400	.
GDP index, 2000, 1991=100.	76.9	59.5	89.9	47.6	77.8	67.6	42.1	69.1	39.1	77.8	46.9	98.9	.
GDP index, 2000, 1999=100	106.0	111.4	106.0	101.9	109.6	105.6	101.9	108.3	108.3	117.6	106.0	104.0	.
GDP index, 2001E, 2000=100	108	108	101	103	110	106	102	105.5	110	116	107	103	.
'Non-State' incl. private activity as % of recorded GDP, mid-2000, EBRD est.	60	45	20	60	60	60	50	70	30	25	55	45	.
Non-State % of employment, 2000	72	63	43	.	77	73	70	61	57	55	66	.	63.4
State intervention index, avg. % reported intervention across range of indicators, WB / EBRD 1998	9	18	43	14	23	24	26	18	.	.	29	30	.
Rank out of 91 (worst), Transparency Intl. Corruption Perceptions Index, October 2001	76	84	nr	nr	71	nr	63	79	nr	nr	83	71	.
Unrecorded GDP, % of recorded plus unrecorded, 1995, WB est.	.	60.6	19.3	62.6	34.3	.	35.7	41.6	.	.	48.9	6.5	35
Unrecorded GDP, % of recorded, 1995 WB est.	.	153.8	23.9	167.4	52.2	.	55.5	71.2	.	.	95.7	7.0	53.8

(Table 1 continued)

Table 1 continued

	Armenia	Azerbaij.	Belarus	Georgia	Kazakh.	Kyrgyz.	Moldova ¹⁾	Russia	Tadjik.	Turkmen.	Ukraine	Uzbek.	CIS
CPI change in %, 1999 over 1998	0.7	-8.5	293.7	19.1	8.4	36.8	39.3	85.7	27.6	23.5	22.7	29.1	70.6
CPI change in %, 2000 over 1999	-0.8	1.8	168.9	4.2	13.4	18.7	31.3	20.8	32.9	8	28.2	29	25
Industrial Production, 2000, 1991=100	55.5	35	102.8	23	42	51	37	62.1	42	73.8	60.5	122.9	61.0
Industrial Production, 2000, 1999=100	106.4	106.9	108	106.1	114.6	108.6	102.3	111.9	110	118	112	106.4	110
Industrial Production, 1H 2001, 1H 2000=100	102.7	105.1	104.1	96.9	113.6	106	112.1	105.5	113	.	118.5	.	108.4
Electric Power, 2000, bn KWh	6	18.7	26.1	7.4	51.4	11.6	0.9	876	14.3	113 ¹⁰⁾	169	45.3	1227
Natural Gas, 1997, bn cu metres	na	6.0	0.2	.	8.1	0.02	na	571	0.04	16.1	18.1	51.2	
Natural Gas, 1998, bn cu metres	na	5.6	0.3	.	7.9	0.02	na	591	0.03	12.4	18	54.8	
Natural Gas, 1999, bn cu metres	na	6.0	0.3	na	9.9	0.03	na	592	0.04	21.8	18.1	55.6	704
Natural Gas, 2000, bn cu metres	na	5.6	0.3	0.1	12	0.03	na	584	0.04	45.9	17.9	52.2	
Natural Gas, 2001E, bn cu metres		5.6					na	567		68.3	18		
Oil incl. condensate, 1997, mn t	na	9.0	1.8	0.1	25.8			306		5.4	4.1	7.9	
Oil incl. condensate, 1998, mn t	na	11.4	1.8	0.1	25.9			303		6.4	3.9	8.1	
Oil incl. condensate, 1999, mn t	na	13.8	1.8	0.1	30.1	0.1	.	305.17	0.02	7.1	3.8	8.1	370
Oil incl. condensate, 2000, mn t	na	14.1	1.8	0.1	35.3	0.1	na	323	0.02	7.4	3.7	8.7	
Oil incl. condensate, 2001E, mn t	na	14.8			39.5		na	345		7.9			
Proven Oil Reserves, EIA est., bn barrels		3.6-12.5	0.198	0.035	10.0-17.6	0.04		49-55	.	0.546	0.395	0.6	
Possible Additl. Oil Reserves, EIA est., bn barrels		32			92				.	1.7		2	
Proven Gas Reserves, EIA est., bn cu m		304	3	8	1866	6		47000		2792	1095	1870	
Possible Additl. Gas Reserves, EIA est., bn cu m		968			2433					4396		968	

(Table 1 continued)

Table 1 continued

	Armenia	Azerbaij.	Belarus	Georgia	Kazakh.	Kyrgyz.	Moldova ¹⁾	Russia	Tadjik.	Turkmen.	Ukraine	Uzbek.	CIS
Sectoral Production Indices, 1998, 1991=100:		5)		5)	5)					2)			5)
Electricity Generation	53	63	61.5	56	58	75	60	76	90	93	66	87	74
Fuel industry	na	62	20.9	7	61	25	na	69	9	48	49	120	64
Ferrous Metals	na	11	124	13	55	na	na	56	na	7	53	66	60
Non-Ferrous Metals	65	11	117	.	84	560	na	57	53	.	70	100	59
Chemicals and petrochemicals	45	17	92	13	12	4	na	42	8	44	45	67	45
Machinery and vehicles	33	32	90	22	20	15	22	38	24	284	32	294	43
Forest products	33	14	138	13	21	9	26	37	4	56	50	150	41
Building materials	42	40	66	9	10	25	27	31	5	61	21	56	30
Light industry	41	29	93	5	19	23	19	13	51	179	24	144	31
Food industry	43	23	100	21	61	26	51	51	23	70	46	164	51
Agricultural Production, 2000, 1991=100	112	64	75	90	56	103	56	64	77	84.6	60.3	93 ¹⁹⁹⁸	
Agricultural Production, 2000, 1999=100	97.5	112	109	85	96.7	104	97	105	112	.	107.9		
Cereals Production, 2000, mn t		1.54	4.9	0.4	11.6	1.6	1.9	65.4	.	1.7	24.4		
Cereals Production, 2001E, mn t					18			93		2	40		
Freight Shipments, common carrier, excl. pipelines, mn t, 2000	3.5	65	139	30	747	14.8	5.4	1728	6.4	.			
Investment, all sources of financing, 2000, 1991=100	20	174	47	26	29	54	13	61	.	.	24	77	
Investment, all sources of financing, 1998, 1997=100	117	139	116	180	112	64	110	88	.	.	105	115	97
Investment, all sources of financing, 1999, 1998=100	98	123	125	49	133	122	79	105			103	102	
Investment, all sources of financing, 2000, 1999=100	127	100	98	102	149	137	85	117.4	.	.	111	.	
Housing Construction, mn sq m, 2000	0.2	0.4	3.5	0.2	.	0.4	0.2	30	0.2	.			

(Table 1 continued)

Table 1 continued

	Armenia	Azerbaij.	Belarus	Georgia	Kazakh.	Kyrgyz.	Moldova ¹⁾	Russia	Tadjik.	Turkmen.	Ukraine	Uzbek.	CIS
Cumulative net Foreign Direct Investment 1989-late 1999, USD mn, EBRD 2000	478	2962	643.8	621	6461	396	500	12344	157	862	3100	815	29340
Cumulative Foreign Total Investment 1989-2000, USD mn, UN ECE statistics	587	4244	786	705	8159	439	473	29680	210	1025	5016	995	52319
Merchandise Exports to Far Abroad, 1996, USD mn	157	341	1888	70	2732	112	252	70975	439	610	6996	3321	87893
Exports to CIS, 1996, USD mn	133	290	3764	129	3179	393	543	15914	331	1072	7405	890	34043
Exports to Far Abroad, 1997, USD mn	138	403	1922	102	3515	285	266	69959	473	300	8646	2688	88696
Exports to CIS, 1997, USD mn	95	378	5739	137	2982	319	608	16668	273	451	5586	1338	34574
Exports to Far Abroad, 1998, USD mn	140	374	1910	84	3239	283	203	58883	394	442	8435	2425	76812
Exports to CIS, 1998, USD mn	81	232	5160	105	2100	231	429	13667	203	152	4202	793	27355
Exports to Far Abroad, 1999, USD mn		718			4131			61000					
Exports to CIS, 1999, USD mn		211			1461			10700					
Exports to Far Abroad, 2000, USD mn	197	1485	2692	167	6006	266	174	89068	364	1187	10075	2094	113775
Exports to CIS, 2000, USD mn	65	214	4040	124	2390	189	243	13728	347	1319	4498	1171	28328
Share of Exports to Russia in CIS Exports, 2000	60.7	41.8	84.5	50	74.6	31.4	76	na	69.2	30E	78.2	.	
Share of Exports that are Mineral Products, 2000	13.0	76.7	27.8	10.5	54.6	20.7	<1	52.6	12.9	85E	9.7	.	
Exports to Far Abroad, 1H 2001, 1H 2000=100	98	174	100.3	90	102	105	115	106	107	.	115	.	107
Exports to CIS, 1H 2001, 1H 2000=100	149	72	107	110	116	82	140	108	68	.	139	.	

(Table 1 continued)

Table 1 continued

	Armenia	Azerbaij.	Belarus	Georgia	Kazakh.	Kyrgyz.	Moldova ¹⁾	Russia	Tadjik.	Turkmen.	Ukraine	Uzbek.	CIS
Net Oil Exports, 2000, EIA, thous. bpd	-5	155	-146	-20.8	475	-6.6	.	4370	-28	83	-275	16	
Net Oil Exports, 2000, EIA, mn t	-0.2	7.7	-7.3	-1.0	23.6	-0.3		217	-1.4	4.1	-13.7	0.8	
Gross Oil Exports, 2001E, mn t	na	8.5		na	31.0	na	na	235	na		.	.	
Net Gas Exports, 2000, EIA, bn cu ft	na	0E	-535	-38.9	-220	67	na	6800	-39.2	1200	.	500	
Net Gas Exports, 2000, bn cu metres	.	.	-19.4	-1.4	-8.0	2.4	na	176.8	-1.4	43.4	-55E	5.5	
Net Gas Exports, 2001E, bn cu metres		.	.	.	-4E	.	na	170.6	.	47.0	-57E	.	
Merchandise Imports from Far Abroad, 1996, USD mn	568	621	2369	416	1296	351	420	32798	286	450	6427	3195	49197
Imports from CIS, 1996, USD mn	288	340	4570	271	2945	487	652	14575	384	561	11176	1517	37766
Imports from Far Abroad, 1997, USD mn	593	443	2872	600	1969	274	567	39364	268	531	7249	3047	57777
Imports from CIS, 1997, USD mn	299	351	5817	340	2307	436	604	14203	482	652	9879	1139	36509
Imports from Far Abroad, 1998, USD mn	672	672	2995	676	2240	401	584	32703	265	530	6779	2256	50773
Imports from CIS, 1998, USD mn	230	405	5554	379	2002	440	440	11277	446	478	7897	869	30417
Imports from Far Abroad, 1999, USD mn		711			2088			22600					
Imports from CIS, 1999, USD mn		325			1595			8700					
Imports from Far Abroad, 2000, USD mn	638	719	2275	441	2295	232	463	19700	104	1105	5916	1822	35710
Imports from CIS, 2000, USD mn	151	332	5428	204	2757	264	224	10500	497	680	8040	1125	30202
Share of Imports from Russia in CIS Imports, 2000	79	66.4	92.2	47	89	44.4	45.9	na	19	.	72.4	.	
Imports from Far Abroad, 1H 2001, 1H 2000=100	88	84	81	120	143	77	115	127.0	144	.	111	.	19.0
Imports from CIS, 1H 2001, 1H 2000=100	103	126	90	134	148	90	120	119.0	106	.	105	.	
Openness index, X + M /GDP, 2000	54.9	56.1	139.5	29.9	73.6	81.3	85.8	52.9	133.5	98.6	88.7	57.6	

(Table 1 continued)

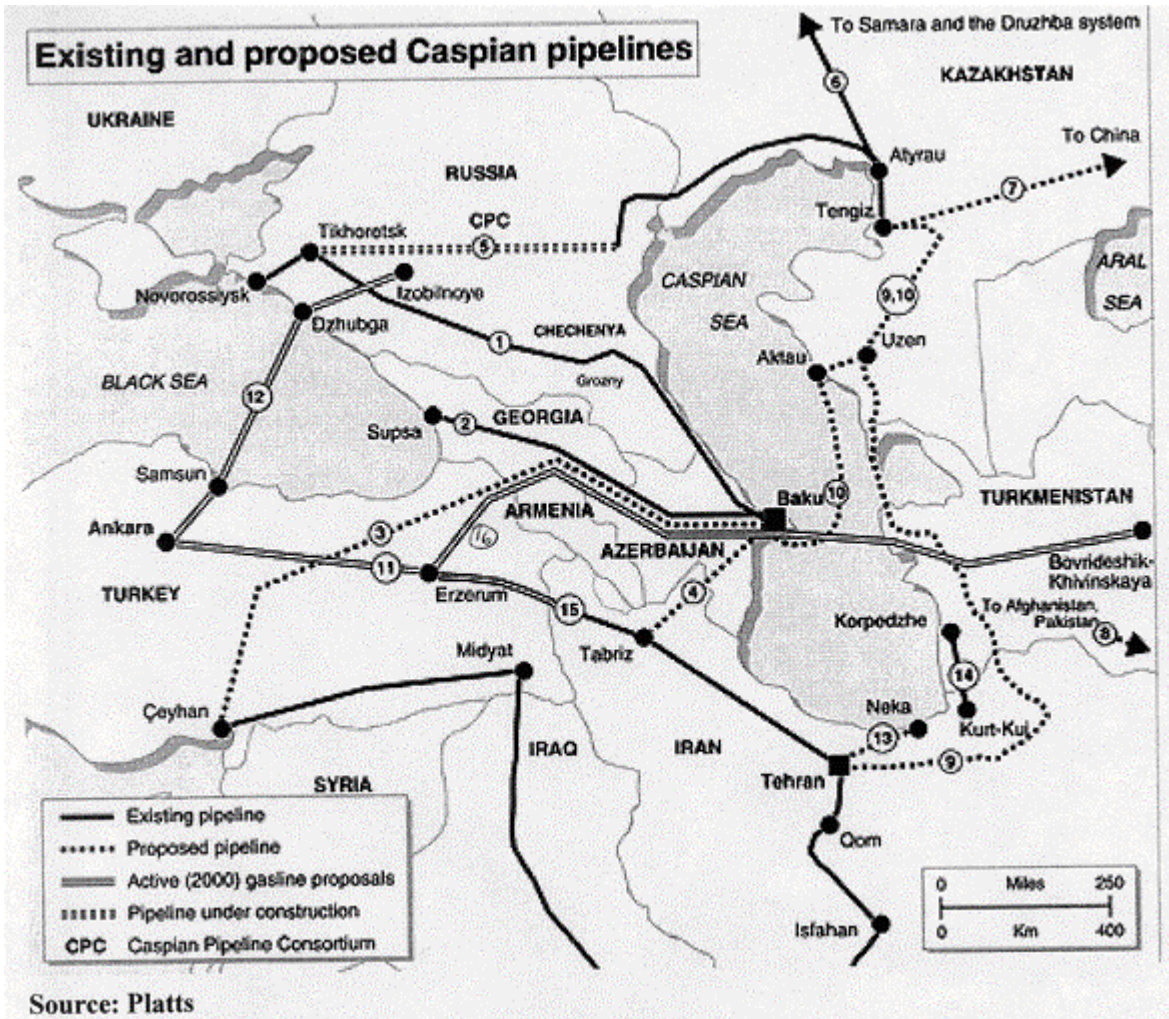
Table 1 continued

	Armenia	Azerbaij.	Belarus	Georgia	Kazakh.	Kyrgyz.	Moldova ¹⁾	Russia	Tadjik.	Turkmen.	Ukraine	Uzbek.	CIS
Monthly USD wages at exchange rate, 2000	39	46	67	33	135 ^{Dec}	25	33	80	10		42		
Percentage of population below poverty line, CIA est.	45	60	22	60	35	51	75	40	80	58	50	.	
Passenger cars per 100 families, 1998	31	17	36	.	23	18	19	37	14	.	31	.	
Passenger car ownership, 1998, 1991=100	80	106	190	.	121	86	127	195	82	104	155		
Change in Employment, 1991-2000, ths	-388	13	-583	-345	-1556	-31	-565	-9615		381	-4377	477	-16589
Registered Unemployed, Dec. 2000, ths	154	44	96	116	231	58	29	1037	50	.	1155	43	3013
Current Account / GDP, 2000, %	-12.60	-6.30	-3.3	-6.9	4.1	-12.8	-8.0	18.4	-4.6	-28.2	4.6	-0.2	
External Debt, CIA est., 2000, USD mn	836	1000	1000	1900	12500	1400	900	163000	1300	2500	10300	3300	
External Debt minus Reserves, USD mn, 2000, EBRD	518	467	2158	1625	10234	1513	855	116440	975	536	9528	3506	
External Debt / GDP, 1999, %	46	24	31	63	50	139	106	87.1	95	110	37	58	
External Debt / Exports of Goods + Services, 1999, %	221	75	35.9	234	116	326	182	189.3	149	149	71	158	
Exchange Rates, national currency to USD, official, 1997 avg.	490.7	3987	26378	1.30	75.4	17.4	4.62	5.785	561	4143	1.86	66.4	.
Exchange Rates to USD, 1998 avg.	504.9	3869	48651	1.39	78.3	20.9	5.37	9.708	778	4941	2.45	94.8	.
Exchange Rates to USD, 1999 avg.	535.1	4119	274512	2.02	119.5	39.7	10.5	24.62	1236	5200	4.13	124.6	.
Exchange Rates to USD, January 2000	518.9	4373	320000	2.0	138.8	45.4	11.6	27.88	1436	5200	5.42	140	.
Exchange Rates to USD, 2000 avg.	539.5	4474	882	2.0	142.1	47.8	12.4	28.13	1831	5200	5.44	236.6	
Exchange Rates to USD, October 2001	560.0	4708	1488	2.1	147.9	47.7	12.9	29.50		5200	5.31	429.2	

Notes: na = none, not applicable, . = no data, nr = not rated; data in italics are for one year earlier; E = WIIW estimate.

1) excl. Transnistria. - 2) 1996. - 3) 1994. - 4) 1992=100. - 5) 1997. - 6) January-June. - 7) January-September. - 8) January-October. - 9) January-November. - 10) January-December. - 11) November.

Sources: CIS Statistical Committee, Statisticheskije Biulleteni, various issues through mid 2001 and as per UN ECE website; Sodruzhestvo Nez avsimykh Gosudarstv v 2000 g.: Statisticheskii Ezhegodnik, Moscow, 1999; TACIS Economic Trends, various countries; UN Population Division website; UN, Human Development Report 2000; CIA, World Factbooks; EBRD, Transition Reports 1997-2000; Transparency International, fall 2001; EBRD and World Bank, Business Environment and Enterprise Performance Survey, in EBRD Transition Report 1999; US Census Bureau, International Data Base; US Energy Information Administration, various country reports; US government Bisnis CIS series; Interfax via FT online, BBC Monitoring, Bloomberg.



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Caspian Pipelines – December 2001

1. Baku-Novorossiysk oil line. In existence; used by AIOC.
2. Baku-Supsa. "Early Oil" line for AIOC fully operational March 1999; former potential route for Azerbaijan's Main Export Pipeline (MEP).
3. Baku-Çeyhan. Designated by governments of Azerbaijan, Georgia, Turkey and United States as MEP route in a series of agreements signed in Istanbul in November 1999. Detailed engineering under way. Final go-ahead likely in Spring 2002 for completion in early 2005. Financing still required.
4. Baku-Iran (possibly Tabriz); possible Azerbaijan oil export option, studied by Total in 1998.
5. Newly-completed Atyrau-Novorossiysk oil line developed by CPC and now officially in 'testing' phase'. Pipelaying completed November 2000; Line fill begun March 2001; first tanker loading October 2001. Full 28.5 mt/y capacity operations (or at least 20 mt/y for Kazakh crude) currently expected in early 2002.

6. Atyrau-Samara-Druzhba system. Oil line exists; Kazakhstan would like to see its capacity increased.
7. Tengiz-China. Oil line under study by China National Petroleum Corp. Not likely for several years.
8. Chardzhou-Pakistan (with possible tie-in from Turkmen and Kazakh fields on/near the Caspian); former Unocal/Delta proposal for oil and gas line under study by Delta. Unlikely since it requires solution to Afghan conflict.
9. Kazakhstan-Turkmenistan-Iran. Preliminary oil line proposal to link Tengiz and Uzen fields with Gulf (Kharg Island) proposed by in 1998. Kazakh government held talks with Total and other companies in late 2000 on shorter line to link Kashagan oilfield with Neka.
10. TransCaspian Oil (Tengiz-Uzen-Aktau-Baku). Alternative proposals by BP Amoco, Texaco and Turkish government. Line would be a de facto extension of Azerbaijan's MEP. Could also serve Kashagan.
11. TransCaspian Gas Pipeline. PSG appointed by Turkmen government in February 1999 to lead the development of this project. Shell took halfshare in project in August 1999 and in December signed preliminary agreements for field development to serve TCGP gasline. Project dormant as of late 2001 despite continuing US diplomatic support.
12. Blue Stream Russia-Turkey gasline. Major subsea pipelaying works on first of twin 8 bcm/y lines under way in late 2001. Italy's Saipem has main subsea contract. Initial deliveries likely in early 2002.
13. Neka-Tehran. Pipeline construction begun September 2000. Line constitutes major element in proposed swaps/pipeline export system from Caspian to Gulf.
14. The KKK gasline. Opened in 1997, this is Turkmenistan's only current export line that does not transit Russia. It runs from the Korpedzhe gasfield to Kurt-Kui, a terminal on Iran's existing east-west pipeline system.
15. Tabriz-Erzurum gas connector. Iran completed Iranian section by end-1999 while delayed Turkish section was ready for use in mid-2001, but 'technical' problems were still delaying actual opening as of October 2001
16. Gas line to Erzerum.

Source: Platts

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