THE OIL SUPPLY POTENTIAL OF THE CIS: THE IMPACT OF INSTITUTIONS AND POLICIES

1. This note assesses the potential long-term role of the Commonwealth of Independent States (CIS) region in global oil supply. It focuses on the degree to which fiscal and regulatory frameworks, and the broader institutional environment, will facilitate or hinder the development of the region's petroleum resources.[1] Its main conclusions may be summarised as follows:

- The CIS will remain both the largest oil-producing region outside OPEC and, for some time to come, the largest source of incremental non-OPEC supply.

- Following the initial post-Soviet contraction, the strong growth of investment and output in the three largest CIS producers (Russia, Kazakhstan and Azerbaijan), owed much to policies that were broadly market-oriented and reliant on private-sector initiative.

- Policies in Russia and Kazakhstan have recently become more *dirigiste*. The state's direct role in owning and managing oil-sector assets has expanded, sometimes as a result of heavy-handed action.

- While there can be little doubt that the CIS's role in global oil supply will continue to grow over the long term, that growth is likely to be slower than otherwise as a result of these policy changes.

- Producers and consumers alike would benefit from a return to policies emphasising secure property rights, stable legal and institutional frameworks, and private initiative. Over the longer term, states' legitimate interest in capturing oil rents would be better served by effective regulation and taxation than by direct ownership and control.

The role of the CIS in world hydrocarbons supply

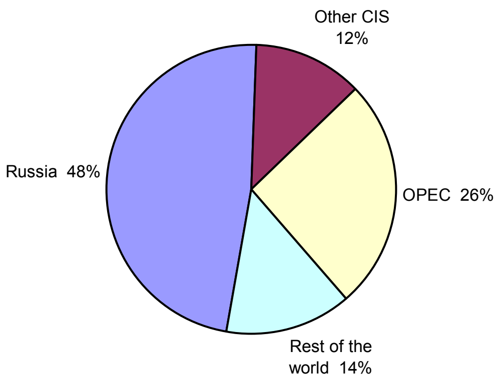
2. The CIS is not destined to become a real rival or alternative to OPEC: in 2004, CIS states produced 14% of the world's crude oil, compared to OPEC's 41%. Moreover, non-OPEC reserves are being depleted faster than those of OPEC. The world's oil supplies are increasingly concentrated in a limited number of OPEC states – where investment is not allocated according to market forces. However, the prospect of rising dependence on Middle Eastern OPEC makes the development of non-OPEC supply even more important, given the general desirability of maintaining diverse supply channels, the potential for instability or threats to supply within much of the OPEC area, and the fact that the cartel's behaviour as reliance on OPEC increases will depend in part on the elasticities of non-OPEC supply and demand. Higher non-OPEC supply elasticities would reduce the scope for the cartel to drive up prices.

3. The CIS is the largest – and fastest-growing – oil-producing region outside OPEC. During the six years to end-2004, CIS producers accounted for just over 60% of the incremental global supply and 82% of the increase in non-OPEC output (Fig. 1). They broadly matched the combined consumption growth of the United States and China (Fig. 2), the two largest sources of demand growth. The IEA (2004) expects the CIS share of world supply to continue growing to 2010, albeit with Kazakhstan and Azerbaijan accounting for an increasing proportion of incremental CIS supply. In Russia, by contrast, output growth is likely to be slower over the long term – especially if recent trends in policy towards the sector continue (see below).

1. The note focuses on the region's supply potential. It does not address other oil-related policy issues, such as the management of oil revenues and/or the macroeconomic challenges posed by "Dutch disease".

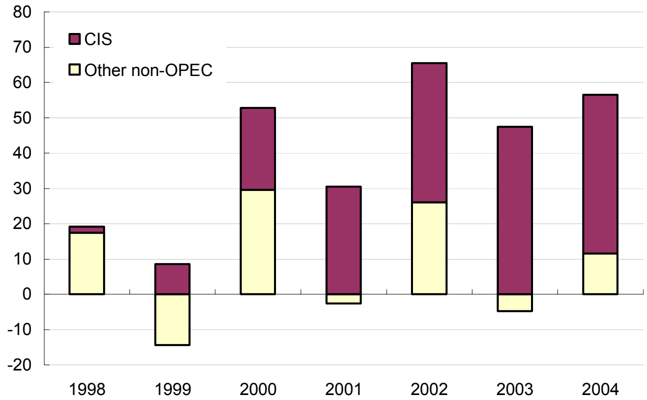
Figure 1. **The CIS contribution to production growth**

A. World crude oil and NGL production growth
Cumulative, 1998-2004



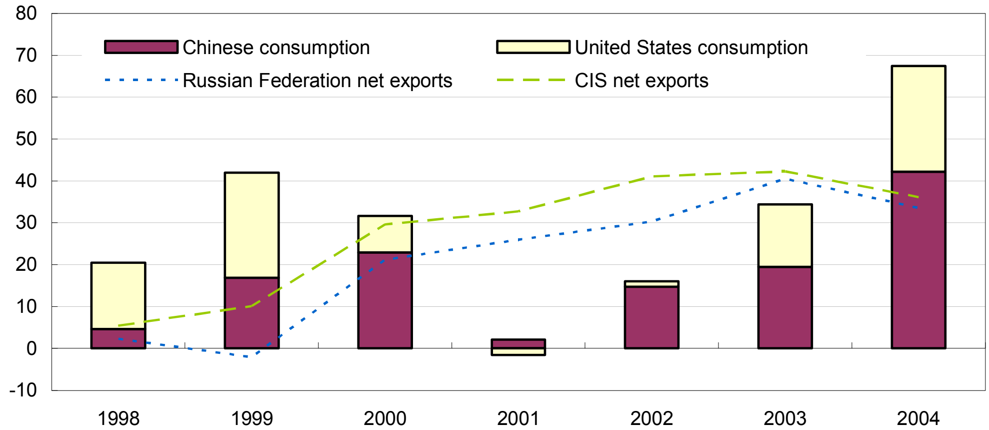
Source: IEA, *Oil information 2005 database*.

B. Non-OPEC crude oil and NGL production growth, 1998-2004
Millions of metric tons



Source: IEA, *Oil information 2005 database*.

Figure 2. **The growth of United States and Chinese oil consumption and CIS net exports**
Million tonnes



Source: BP, *Statistical review of world energy*, 2005.

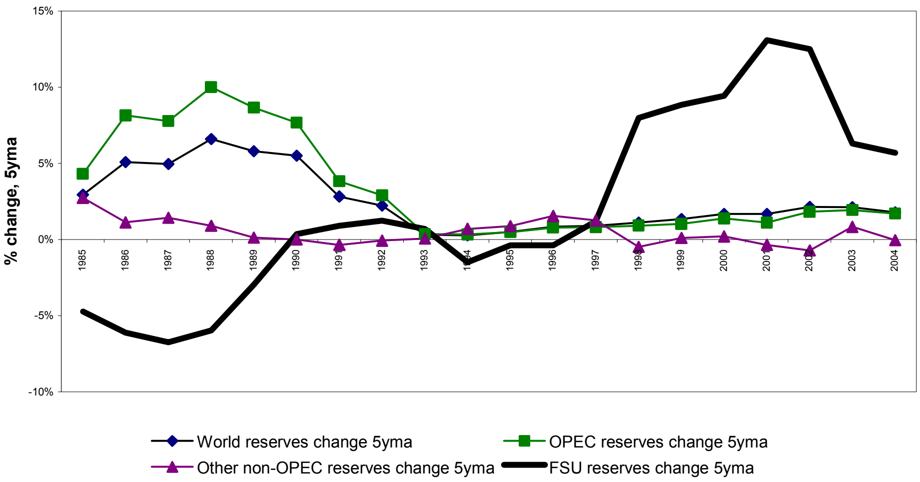
4. Assessments of the CIS's long-run potential vary, depending on the methods employed.[2] However, the CIS appears set to remain the most important oil region outside the Middle East. BP now estimates CIS proven reserves at just under 121bn bbl, up 29% over five years. This puts the region at 10% of world reserves and 41% of non-OPEC reserves.[3] In recent years, the CIS has been the only major region to record strong reserves growth, albeit partly offsetting previous very slow growth of reserves (Fig. 3). The CIS share of both reserves and output could well rise further. The US Geological Survey's probability estimates of as-yet undiscovered, technically recoverable oil in the world suggest that the CIS states hold 17% of still undiscovered oil reserves.[4]

2. There are considerable differences in estimates of the total volume of petroleum physically in place and in assessments of how much of this could prove to be commercially recoverable.

3. This compares with a 62% share for the Middle East as a whole, led by Saudi Arabia's 22%.

4. These estimates do not include potential reserves growth via increases in the share of known resources assessed as economically recoverable. CIS reserves continue to grow strongly on this basis as well.

Figure 3. **Change in oil reserves**



Source: BP Statistical Review of World Energy 2005, OECD calculations

Changing policies and institutions

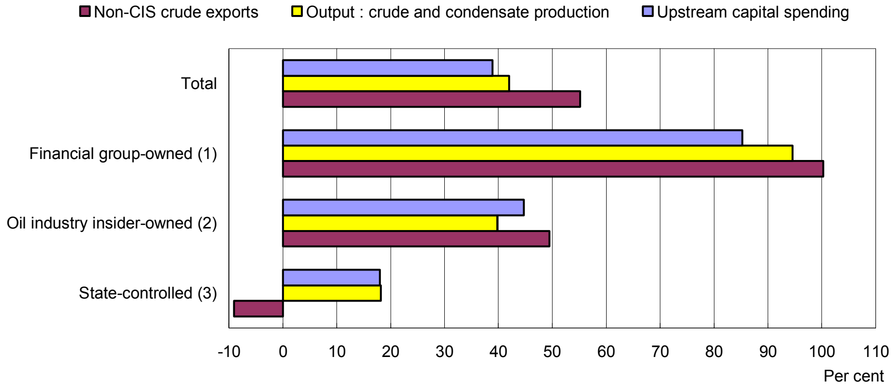
5. It is far by no means certain that this potential will be developed in a timely, economically efficient way. While the impact of geology, geography and international price movements can hardly be ignored, policy-makers can do much to raise or lower the long-term elasticity of CIS supply. Fiscal, institutional and regulatory frameworks may well matter more than in some other regions, because a large and growing share of CIS output comes from offshore or other difficult fields, involving higher costs and greater up-front investment. CIS oil producers in any case face much higher extraction and transport costs than OPEC members. Since there will probably be less margin for error in project economics in the CIS, investment is likely to be more sensitive to policy variables.

6. During the 1990s, policies towards the oil industry in the three largest CIS producers were all broadly market-oriented and largely reliant on private-sector initiative, despite significant differences:

- Russia largely privatised its oil industry into the hands of domestic private owners, either oil industry insiders or financial groups. The state retained ownership only of infrastructure and some residual production and refining assets. Foreign entry into the sector was limited. Despite the impediments to foreign entry, the questionable nature of many privatisation deals and conflicts between the new owners and the authorities, the sector that emerged from this process was very dynamic. Investment, output and exports all began to recover rapidly following privatisation (Fig. 4).

- Kazakhstan and Azerbaijan opted for much greater foreign involvement, owing largely to their acute need for foreign capital and expertise after independence. Kazakhstan privatised its existing oil-sector enterprises and proceeded to develop its major fields on the basis of concessions and production-sharing agreements (PSAs) with foreign investors. Azerbaijan also opted for PSAs involving foreign oil companies, albeit with the state-owned oil company a party to all of them.

Figure 4. **Oil companies: relative performance**
Growth 2001-2004 inclusive

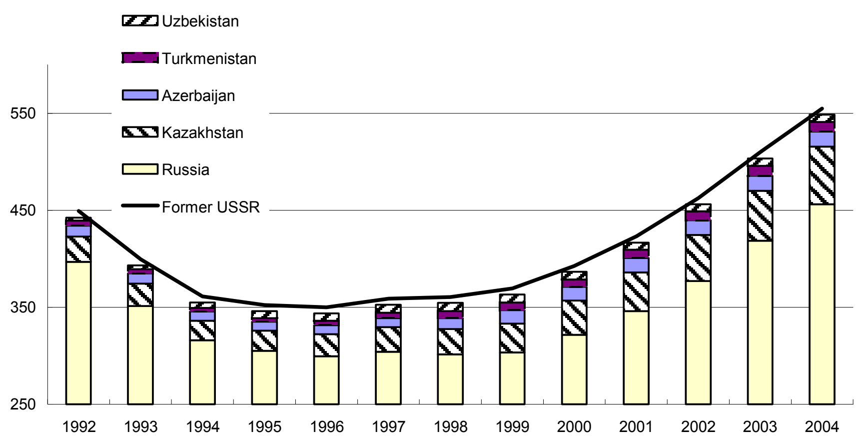


1. Sibneft, TNK, YUKOS.
2. LUKOIL, Surgutneftegaz.
3. Bashneft, Rosneft, Tatneft.

Source: Ministry of Energy, InfoTEK, Rennaissance Capital estimates, RIANTEC, OECD calculations.

7. Despite the very difficult business environment that prevailed after the Soviet collapse, these strategies paid off handsomely. Investment, output and exports took off in all three states after the initial post-Soviet contraction, driven by private companies (Fig. 5). In Russia, where state-owned and private companies operated side by side, the performance of the former was very poor (Fig. 4). While the recovery of Caspian output was expected, in view of the on-going development of major new fields by foreign consortia, the Russian recovery surprised most observers. Russian production growth since 1996 has resulted chiefly from rapid increases in output from established fields, made possible largely by the application of new technologies and, in many cases, the employment of western oil service companies. Clearly, growth cannot continue indefinitely on this basis. Sustained growth over the long term will depend on greenfield developments.

Figure 5. **Production of crude oil and NGL**
million metric tons



Source: IEA, *Oil information 2005 database* .

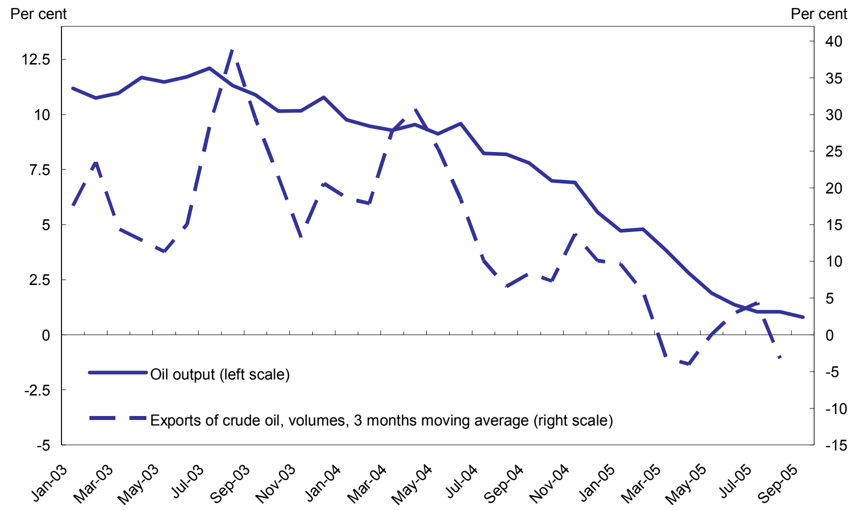
8. Unfortunately, the trend towards increasing state control over oil and other "strategic sectors" casts doubt on the prospects for new greenfield projects. While the attack on Yukos has been the most visible sign of this shift, it is by no means the only one. The tax burden on the sector has increased, as has the arbitrariness of both tax administration and the administration of the licensing regime. Some increase in oil-sector taxation was certainly warranted, but recent changes have tended to aggravate the distortions created by Russia's profit-insensitive system of oil-sector taxation, which creates significant disincentives both to raising current production and to investing in exploration and greenfield development. The government has promised to tackle these problems, but progress has been slow. At the same time,

geopolitical rather than commercial considerations have gained importance in infrastructure policy. This has contributed to a tightening of transport constraints on exports, even as tax changes have made oil exports less profitable. Together, these two factors have tended to reduce growth. Geopolitical and security concerns are also exerting a powerful influence on the on-going reform of the law on the subsoil.

9. While Kazakhstan has not witnessed anything like the expropriation of Yukos, friction between the state and foreign investors has increased markedly in recent years, chiefly as a result of the state's increasingly aggressive interpretation of concession contracts and PSAs. A major contract term in the country's largest PSA was overridden by legislation, despite previous commitments to contract stability, and there have been repeated threats to force a renegotiation of major contracts. The new tax and regulatory regime adopted in 2004–05 is a major deterrent to new projects, as is the requirement that investors carry the state-owned oil and gas company, Kazmunaigaz, for a 50% stake in any new project.

10. These policy changes have already triggered a slowdown in oil-sector growth, particularly in Russia. Oil-sector investment fell sharply in Russia in 2004, soon followed by a sharp slowdown in the growth of output and exports (Fig. 6). Data on investment, output and exports by company show that this slowdown was chiefly a product of the assault on Yukos. The impact on Kazakh growth has been much more muted, because many of the new measures apply only to projects undertaken from 1 January 2004. Even so, tougher regulatory policies do appear to have constrained production growth.

Figure 6. **Russian oil extraction and crude oil exports**
Growth, year-on-year



Source: Russian Federal Service for State Statistics.

Looking to the future

11. The trend in Russia and Kazakhstan is thus towards higher taxation, greater state ownership of oil-sector assets, and increasingly aggressive and arbitrary administration of licensing and other regulatory regimes. This marks a substantial retreat from the authorities' previous commitment to market reform. Many factors seem to have contributed to this shift, including conjunctural and country-specific ones. However, a common feature has been the weakness of the administrative, regulatory and rule enforcement capacities of both states, and the authorities' frustration at their inability to capture oil rents in an environment of very high prices. These institutional weaknesses have not predetermined the actions taken by either government, but they have certainly affected the state's incentives. A relatively weak state, which finds it difficult to tax and regulate effectively, will have greater incentives to rely on direct control rather than contract, regulation and taxation. Yet these same weaknesses mean that the state will be ill equipped to monitor and control large state-owned companies.

12. The immediate impact of the Yukos case in Russia can probably be overcome – as the continued growth of output by other Russian oil companies would seem to suggest. Of far greater concern are those

recent shifts in policy that probably will *not* be reversed. It is clear that the state's role in the sector is set to increase further. In late 2003, state-controlled companies accounted for about 17% of crude production. This figure has since more than doubled and could reach 45% by the time Yukos's assets are disposed of. Given the poor performance of most Russian state companies with respect to cost control, productivity, corporate governance and innovation, this bodes ill for the future. Moreover, greater state ownership of oil-producing assets is likely to distort the incentives facing the remaining private oil companies, because they fear unfair treatment at the hands of the state when competing with large state-owned producers.

13. In both countries, greater state intervention is likely to result in more confusion and delay when it comes to major decisions. This is especially true of Russia, given the authorities' inability to outline and pursue coherent strategies towards the sector. All major areas of policy (taxation, licensing, infrastructure etc) have been subject to frequent changes, contradictory official statements and long delays. Investment planning therefore takes place in an environment characterised by high levels of uncertainty, much of it generated by the state. Insecurity of property rights combined with uncertainty about state policies is likely to shorten private investors' time horizons at a time when there is a growing need for increased exploration and investment in long-term, greenfield projects.

14. For oil consumers, as well as Russia and Kazakhstan, the long-term consequences of further *dirigiste* policies are potentially serious. Given the sums already committed to existing projects, Kazakhstan is still well placed to deliver strong growth over the years ahead. However, major new projects are unlikely under the present tax and regulatory regime, and it is far from certain that the country will triple output by 2015 as planned, not least because of conflict with investors over the development of export infrastructure. Russia is another matter. It accounts for almost 80% of CIS production today and has considerable potential for further, albeit undramatic, growth. However, it faces a much greater risk than Kazakhstan of stagnating or even falling output over the medium term if significant new greenfield projects are not put in train in a timely manner.

15. The drift towards tighter state control over the oil sector has largely been justified by the state's legitimate desire to capture a larger share of oil rents than it has hitherto been able to secure. However, it is not clear that nationalisation and heavy-handed regulation will achieve this end. The inefficiencies of sovereign monopolies in both countries, coupled with evidence of substantial tax evasion and rent-seeking by insiders in state companies, suggest that state ownership may not be sufficient to protect the state's property rights. Much more promising would be an approach emphasising clear, secure property rights, a stable, profit-sensitive tax system and reliance on competition, markets and private-sector initiative. For Russia, in particular, it is hard to exaggerate the importance of reforming oil sector taxation while creating a transparent, stable legal and regulatory framework for the sector.

16. In this context, "secure property rights" must be understood to include those of the state itself as well as the rights of private owners. If private capital is to provide the sector with the dynamism it needs, it will be crucial to ensure that the state has the regulatory, monitoring and extractive capacities needed to ensure that it can protect its own rights, as the owner of subsoil resources, without resort to heavy-handed intervention. It must be able to devise and administer a depletion strategy that reflects its interests and to address such issues as transfer pricing in the industry. This implies that significant strengthening of state capacities will be needed alongside any renewed commitment to private-sector development. The question is not whether the state has a key role to play in the oil sector but what that role should be.