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Focus

Russia — Rudiger Ahrend, Paavo Suni, Anders Åslund, Philip Hanson

Specials

Economic Policy in the Presence of Globalisation: Report on H.-W. Sinn's 60th Birthday Conference — Heidemarie C. Sherman

Concept for a New German Budget Rule — Elke Baumann, Elmar Dönnebrink and Christian Kastrop

Harmonizing Corporate Income Taxes in the US and the EU — Charles E. McLure, jr.

Spotlight

Economic Prospects of CIS Economies

Trends

Statistics Update

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Focus

RUSSIA

Can Russia Sustain Strong Growth As a Resource Based Economy?
Rudiger Ahrend 3

Effects of Energy Price Changes on Russian Economy
Paavo Suni 9

An Assessment of Putin's Economic Policy
Anders Åslund 16

State-led, Oil-fuelled Development: Is That Good for Russia's Future?
Philip Hanson 22

Specials

Economic Policy in the Presence of Globalisation:
Report on Hans-Werner Sinn's 60th Birthday Conference
Heidemarie C. Sherman 28

A Concept for a New Budget Rule for Germany
Elke Baumann, Elmar Dönnebrink and Christian Kastrop 37

Harmonizing Corporate Income Taxes in the US and the EU:
Legislative, Judicial, Soft Law and Cooperative Approaches
Charles E. McLure, jr. 46

Spotlight

Economic Prospects of Commonwealth of Independent States 53

Trends

Statistics Update 55

Russia

Can Russia Sustain Strong Growth As a Resource Based Economy?

Rudiger Ahrend*

Following a decade of strong economic growth, the question arises whether Russia – being a resource-based economy – will be able to sustain such a rapid pace of expansion in the future. While in the 1950s and 1960s economists generally believed that abundant natural resource endowments would facilitate a country's economic development, in the last two decades many have come to see natural resources as an obstacle. Examples of resource-rich countries experiencing both poor economic growth and little technological progress abound.

This article briefly reviews the economic evolution of the Russian economy since 1999, before discussing the specific challenges of resource-based development in the Russian context. It argues that – with the right institutions and policies – the resource curse is no *fatalité*, as the example of several countries witnesses: natural resource abundance did not prevent successful economic development either in large countries such as Australia or Canada, or smaller ones like Norway or Finland. There is hence no inherent reason why Russia – if establishing a suitable economic and political environment – should not be able to follow their example.

Russia's post-crisis economic history can roughly be divided into three phases. In the immediate aftermath of the 1998 financial crisis, growth was mainly driven by the temporary boost to competitiveness brought about by the sharp devaluation of the rouble. As the effects of the devaluation gradually faded, the resource sector took over as the main driver, and in 2001–2004, Russia experienced an oil-extraction boom. With oil production growth starting to slow in 2004, Russian growth has since been increasingly driven by a consumption boom, supported by rapidly improving terms of trade.

Russia's post-crisis recovery (1999–2001)

Despite widespread pessimism, in the wake of the crisis, as to Russia's prospects,[1] the economy started to recover fairly rapidly. While growth was broadly based, initially, the recovery was strongest in those sectors that had been doing worst before the crisis – domestically oriented non-resource sectors. The dramatic turnaround resulted mainly from the huge fall in wages and energy prices, in both real rouble and foreign currency terms, following the devaluation. A large initial decline in input costs allowed a significant share of Russian industry to become competitive and profitable again, while the sharp rise in the rouble prices of imported goods facilitated import substitution on a large scale. The improvement in the economic situation in the "real sector" was also reflected in steadily declining levels of barter, arrears and non-payments as the economy became re-monetised. The early post-crisis years also saw a wave of sometimes very aggressive ownership consolidation, as those who had weathered the crisis sought to acquire assets cheaply, while exploiting the general confusion in the aftermath of the crisis to default with impunity on their more vulnerable creditors, or to squeeze out minority shareholders via share dilutions or simply asset transfers from company to company. Some of today's leading Russian champions of good corporate governance were among the most aggressive in employing the above-mentioned schemes after the crisis. Russian companies also became adept at exploiting the weaknesses of the 1998 bankruptcy law in order to execute hostile corporate takeovers on the cheap, a practice its most expert practitioners have developed into an art form.[2] Many of the large financial groups were also extremely adept at "restructuring" failed banks in

* Economics Department, OECD. The views expressed in this paper are those of the author and do not necessarily reflect those of the OECD or its member states.

[1] For an exception to this view, see Ahrend (1999) and Breach (1999).
[2] To some extent, the use of bankruptcy as a takeover mechanism reflected the absence of a well functioning market in corporate control, which would have enabled acquisitions to be executed in a more "normal" fashion.

such a way as to shift as much of the value as possible into other vehicles, leaving the state and other creditors empty-handed.[3]

While the devaluation kick-started the economy, a low exchange rate by itself was not the only reason for the post-crisis recovery. In 1994, much the same combination of factors – a weak rouble, cheap domestic energy prices and relatively high export prices for oil – had failed to prevent a 12 percent drop in GDP and a fall of more than 20 percent in industrial production. By 1999, however, liberalisation and privatisation, controversial and incomplete though they were, had facilitated the emergence of an economic system in which private enterprises could and did respond to the opportunity provided by the devaluation. The economy's response to the devaluation and to the subsequent recovery in oil prices was in no small measure a product of the structural changes wrought during the 1990s. In this respect it is important to note that the economy began to grow strongly *before* oil prices started to recover. Improving terms of trade were undoubtedly helpful later on, but the initial post-crisis recovery was not dependent on, let alone driven by, oil-price increases.

The oil extraction boom (2001–2004)[4]

While in the immediate aftermath of the crisis growth was particularly strong in domestically oriented manufacturing sectors, this changed dramatically in the period from 2001 through 2004, as export-oriented natural resource sectors became the main engine of economic expansion. Correcting for a distortion in official data caused by transfer pricing,[5] natural resource sectors directly accounted for roughly 70 percent of the growth of industrial production in 2001–04, with the oil sector alone accounting for just under 45 percent. This implies that natural resource sectors directly contributed more than one-third of Russian GDP growth over the period, and the oil industry alone close to one-quarter.[6]

[3] See Tompson et al. (1999) on the use of "bridge banks" to escape creditor demands during 1998–2000.
[4] For a more detailed discussion of Russia's post-crisis growth performance, see e.g. Ahrend (2006).
[5] Using estimates of the relative weights of different sectors in GDP from World Bank (2004). On these estimates, the oil and gas sector's share of GDP rises from around 8 percent in the official data for 2000 to just above 19 percent, and the share of industry increases from 27 to 41 percent.
[6] This also corresponds closely to the conclusion reached by Gurvich (2004), who – using a different methodology – estimates that during 2000–03, the oil sector directly accounted for 24.8 percent of GDP growth.

With respect to the oil sector, two points stand out. First, state-controlled companies barely increased output or exports. Russia's private oil companies accounted for almost all of the growth recorded over the period. This means that private oil producers directly accounted for somewhere between one fifth and one quarter of GDP growth, not even taking into account the knock-on effects from oil-sector procurement and wages on domestic demand. Secondly, the private companies that did the most to drive this growth were those controlled by major financial groups (the so-called *finansisty*) rather than those under the control of oil-industry insiders (the *neftyaniki*).

While the longevity of the post-crisis recovery beyond 2001 owed much to a boom in oil extraction, other drivers, such as structural changes and macroeconomic policies, were also crucial. A large push on a wide array of structural reforms, as well as a prudent fiscal stance with a federal budget that was balanced over the oil-price cycle, were arguably the authorities' most important contribution to sustaining growth.[7] In the corporate sector, far-reaching restructuring and strong productivity gains were achieved against a background of rapid consolidation in the aftermath of the crisis. The industrial structure became dominated by a relatively small number of large industrial groups,[8] most of which had been founded around some commodity exporting business, and subsequently mainly pursued strategies of vertical integration.

A full-fledged consumption boom on the back of rising commodity prices (2004–2008)

The consumption boom accelerated from late 2003 onwards, as the authorities increasingly allowed gains in budget revenues from rising oil prices to feed into the economy in order to boost domestic demand. The resulting consumption boom stimulated activity in the service sector – not in small measure as retail trade benefited from strongly increasing imports. Starting in 2005, thriving domestic demand contributed to a construction boom, and from early 2006 onwards also resulted in strongly accelerating investment outside construction, stimu-

[7] See OECD (2004) for an in depth discussion.
[8] It is estimated that in 2001 the ten largest industrial groups, together with the state-controlled national gas and electricity companies, accounted for roughly half of Russian industrial output (see Dynkin 2004).

lating in turn activity in domestically oriented manufacturing sectors. Especially in 2004–05, the expansion in domestically oriented sectors counteracted an oil sector driven slowdown in industrial production growth. While undoubtedly the oil sector would not have been able to sustain double digit extraction and export growth indefinitely, its slowdown was mainly a consequence of a sharp fall in oil sector investment amidst the deterioration in the business climate that resulted from the complex legal and political campaign directed by the state against the private oil company Yukos and its main shareholders,[9] combined with substantial increases in oil sector taxation and tightening infrastructure constraints.

While Russia's growth performance in 2004–07 at an average of slightly above 7 percent remains impressive in absolute terms, it should be seen alongside average growth of above 9 percent in the other CIS countries, and in the context of an external environment that arguably has rarely, if ever, been as benign for Russia.

Potential advantages and challenges of being a resource-based economy[10]

Having a rich natural-resource base has some obvious advantages. If exploited, natural resources provide a country with export revenues that are largely sheltered against competition,[11] and higher income provides the potential for increasing investment and improved living standards. Moreover, despite frequent claims to the contrary, specialisation in natural resources does not necessarily imply low levels of technological know-how. Resource extraction – as it moves to deposits that are ever more difficult to exploit – has become quite intensive in the use of specific high technology.[12] Russia, in particular, would seem to have the potential to become a global provider of high-tech services connected to natural resources.

Poor economic performance may also not have been caused by resource abundance in isolation, as in recent decades many countries' resource sectors have been dominated by state-owned or state-controlled enterprises. This is especially true of capital-intensive extraction sectors like oil. Given the ample evidence that private enterprises tend to be more innovative and efficient than state-owned ones, the substandard growth performance of resource-based economies may – at least to some degree – have been brought about by state ownership of large shares in key sectors, rather than by natural resources *per se*. State ownership can be particularly devastating for companies in countries where administrative capacities are limited and corruption is rampant. Moreover, the impact of state ownership is likely not to be restricted to the performance of the state-owned enterprises *per se*: by potentially preventing a level playing field, it can easily foil the development of the concerned economic sectors as such. The contrast between the largely state-owned Russian gas sector, and the (until 2005) almost entirely privately owned oil sector is suggestive. While from 2000 to 2004 the oil sector prospered, the gas sector continued to stagnate.[13]

Nonetheless, resource-based development obviously presents important challenges. These include an increased vulnerability to external shocks, the risk of "Dutch disease",[14] and institutional pathologies often associated with heavy reliance on natural resource sectors. These challenges are indeed serious, but they can be overcome or at least very substantially mitigated with the aid of appropriate institutions and policies.

As resource-based economies are particularly exposed to external shocks arising from commodity price fluctuations, their margin of error is much smaller than for economies with more diversified economic structures. Good macro-economic management thus becomes a *sine qua non* condition for the avoidance of boom-and-bust cycles. In this respect it is difficult to exaggerate the importance of fiscal discipline. In short, what is needed for Russia is a counter-cyclical fiscal policy with respect to oil prices, which is based on conservative oil price as-

[9] While the onslaught against Yukos was the most visible case of arbitrary state action against private business, it was not by any means the only one. Numerous Russian companies came under pressure from the tax service, the prosecutors and the courts, often in cases that clearly appeared to be motivated by private commercial or political motives. The Federal Tax Service was perhaps the most aggressive player of all, reflected in a dramatic increase in the service's propensity to reopen tax cases from past years, often penalising taxpayers for practices that it had previously approved. As a result – while the state moved to tighten its grip anew on key "strategic" sectors, especially resource sectors – the general investment climate deteriorated significantly.

[10] For a more detailed discussion on the issue of resource-based development, see e.g. Ahrend (2005).

[11] It is a banal point – but worth stating – that in order to compete in natural resources, a country needs to possess the relevant deposits, and neither highly advanced technology, nor an ultra-cheap labour force can substitute for a lack of deposits.

[12] See Wright and Czelusta (2002).

[13] For a discussion of the Russian gas sector, see e.g. Milov (2006) or Ahrend and Tompson (2005).

[14] On the threat of Dutch disease in Russia, see e.g. Ahrend et al. (2007).

sumptions and strikes a reasonable balance between spending revenues from higher oil prices and sterilizing windfall gains in a stabilisation fund.

To avoid "Dutch disease" and assist development of the non-resource sector, in addition to a stabilisation fund that invests cyclical commodity windfalls in foreign currency denominated assets, the tax system is also key. Direct taxation of natural resource sectors in general should eliminate rents, but must assure that these sectors remain sufficiently profitable to allow for their further development. The proceeds of the resource taxes allow for low direct tax levels in the economy and in particular lower corporate and payroll taxes, which in turn help boost investment and keep non-resource sectors competitive. In this respect, Russia's abolition of turnover taxes, the decrease in the Unified Social Tax (UST), and those measures that increased in an equitable way the tax burden on the oil sector were steps in the right direction (though current oil sector taxation is too high for most greenfield developments, requiring further modifications). However, taxation of other resources or resource-related sectors (e.g. gas) remains low.

Institutional pathologies connected with resource abundance generally include worsening corruption, increased income inequality, as well as a bias of talent towards the resource sector, as highly capable individuals focus on securing resource rents rather than building successful businesses in other sectors. Capturing a significant share of resource rents for the state through the tax system goes a long way in resolving these issues, though this requires a fairly efficient and non-corrupt administration.[15] Interestingly, all resource-based economies that have developed successfully had strong civil societies, relatively well functioning and independent judicial systems and high levels of press freedom – indicating that these are not a luxury without relevance for economic progress.

Finally, to the degree that a more diversified economy is less prone to the risks enumerated above, diversifying the economy can also solve potential problems of resource dependence. But there is no miracle recipe for achieving diversification overnight. Fostering diversification is a long, protracted process, and will need appropriate policies in many areas. There is no shortage of examples of failed diversification policies, and economists know far more on the basis of international experience about what does not work than about what does. Fiscal irresponsibility as well as large-scale state investment in pet industrial projects rank at the top of the list of things to avoid.

In any case, there should be no illusion about Russia's export structure in coming years. Not only do oil, oil products and gas account for about two thirds of Russia's exports, but in recent years Russia's revealed comparative advantage (RCA) has been largely limited to natural resources, especially hydrocarbons, energy-intensive basic manufactures (steel, aluminium, nickel, fertiliser), plus some other commodities. It is therefore clear that in the short and medium term commodities will continue to dominate Russia's export bill, regardless of whether or not policies aimed at the diversification of economic activity are successful. Even if Russia manages to increase sharply its exports of more sophisticated manufactures, their contribution to total export growth will remain modest for years to come, simply because they start from such a low base.

Russia's growth prospects

While a large degree of uncertainty remains with respect to future developments in Russia, a number of points on whether and how Russia could sustain high growth can be made.

- Russia's medium-term growth potential is, at least to some degree, likely to remain dependent on oil and gas extraction. While, in principle, other high growth scenarios can be envisaged, in practice medium-to-long-term growth prospects are likely to be higher under the assumption of Russia achieving decent export growth. While some increases in exports may come from new areas as well as from a deepened processing of commodities, robust export growth in the medium term will probably require further increases in mineral exports, including hydrocarbons, and will, at a minimum, be hard to achieve if commodity exports actually started declining significantly.[16] Maintaining, let alone achieving continued growth in hydrocarbon exports will necessitate some investment in the transport infrastructure,

[15] On the issue of administrative reform in Russia, see OECD (2006).

[16] Basic manufacturing in energy-intensive sectors may also be able to make some contribution to future export growth.

especially pipelines, as well as quite substantial investment in the development of new fields. A healthy business climate and especially clearly assigned and secure property rights are important determinants of the degree of private investment available for such large projects.[17]

- The service sector is likely to remain another driver of long-term growth. With Russia becoming a richer country, demand for services – such as banking, insurance, restaurants, travel and hotels – is increasing. As the Russian service sector is still comparatively underdeveloped, there remains ample scope for growth there.[18] The service sector, however, will not develop very strongly if there is not a general increase in living standards – i.e. Russia will not be able to solely rely on strong growth in services, but also needs to increase industrial production to some degree.
- From a macro-economic point of view, Russia is in a better position than many other oil exporters. Even though Russian fiscal policy has been expansionary since the second half of 2004 and windfall oil revenues are increasingly being spent, Russia has so far still saved a much larger share of its oil windfalls than many other oil-producing countries. This relative fiscal discipline has served Russia well by taking off some inflationary pressures, and should oil prices retreat from current highs, the negative effect on the Russian economy would likely be less severe than for many other resource-exporters. However, with the economic policies of 2004–07, it is unlikely that Russia would be able to sustain the kind of rapid growth the authorities are aiming for in neutral – let alone adverse – circumstances.

For the time being, and assuming oil prices stay around the high levels seen in the first half of 2008, Russia still has a quite significant buffer, both on the fiscal and the external side. While debatable from the viewpoint of good macro-economic management, it is likely that the large oil-generated budget surpluses will continue to be progressively fed into the economy to boost growth. This will further add to already very high import growth, but thanks to the large current account surplus, there is still some time before external constraints will become binding. This said, while it is uncertain for how long Russia will be able to pump up its economic performance in the manner described, it is certain that the strategy as such is unsustainable; over the longer term external constraints will require a need for much stronger – and preferably private – investment to increase Russia's supply potential of *tradable* goods and services.

At this point, having efficient economic structures with correct incentives will become a key issue. The oil sector, for example, has in the past shown that with correct incentive structures – including multiple privately owned production companies and fair access to the export infrastructure – production increases on a totally unexpected scale have been possible. In all likelihood the same would hold for a gas sector reformed along these lines.[19] Unfortunately, the structure of the oil sector has moved in the direction of that prevalent in the gas sector rather than the other way round, and such a trend has also emerged in some other sectors. But as those sectors that remain privately owned should continue to experience solid growth, even relatively inefficient state-controlled oil and gas companies should, in principle, be able to achieve some output increases, not least by teaming up with foreign private oil majors for specific projects. Nonetheless, having the state at the commanding heights at some of the key sectors of the economy will likely come at the price of not allowing Russia to reap its full economic potential, and exacerbating some of the risks connected with resource-based development.

Conclusion

All in all, even though Russia as a resource-based economy faces specific risks and challenges, the resource curse is no *fatalité*. Economies with strong private entrepreneurship in resource sectors, such as Canada, Australia or the Scandinavian countries, show that, with the right institutions and policies, developing a successful modern economy based on natural resource exports is feasible. In principle, there is no reason why Russia should not be able to follow their example, but progress will increasingly depend on the right policy choices. Simplifying somewhat, while initially strong economic growth was largely a result of improved economic policies and successful structural reforms (in part undertak-

[17] On the importance of institutional framework conditions for realising a country's oil supply potential, see Ahrend and Tompson (2006).

[18] Part of the increasing weight of services in GDP will also come from a shift in relative prices. Domestic prices for non-tradables will be increasing faster than for those for tradables with the Russian currency appreciating.

[19] If other producers were given fair access to the trunk pipeline network and some access to export markets, then non-Gazprom producers could increase investment and output very rapidly indeed. See Ahrend and Tompson (2005).

en during the 1990s), in recent years economic performance has been largely assisted by increases in commodity prices. With those tailwinds likely to abate at some point in time, speed limits of Russian growth will return to being mainly determined by the structural features of the Russian economy. Hence, as the economic impact of global price developments diminishes, the fate of the Russian economy will increasingly come to depend on the actions of the Russian authorities again.

References

Ahrend, R. (1999), "Russia's Post-Stabilisation Economic Decline, Its Crash, and Finally Its Revival. Don't Just Blame the Corruption – It's the Exchange Rate, Stupid!", *Russian Economic Trends* 8/3, 26–33.

Ahrend, R. (2005), "Can Russia Break the Resource Curse", *Eurasian Geography and Economics* 46, 584–609.

Ahrend, R. (2006) "Russia's Post-Crisis Growth: Its Sources and Prospects for Continuation", *Europe-Asia Studies* 58, 1–12.

Ahrend, R. and W. Tompson (2005), "Unnatural Monopoly: The Endless Wait for Gas-Sector Reform in Russia", *Europe-Asia Studies* 57, 801–821.

Ahrend, R. and W. Tompson (2006), *Realising the Oil Supply Potential of the CIS: The Impact of Institutions and Policies,* OECD Economics Department Working Paper 484, doi: 10.1787/860836424628.

Ahrend, R., D. de Rosa and W. Tompson (2007), *Russian Manufacturing and the Threat of "Dutch Disease". A Comparison of Competitiveness Developments in Russian and Ukrainian Industry,* OECD Economics Department Working Paper 540, doi: 10.1787/322823013852.

Breach, A. (1999), *Russia: Now a Competitive Exchange Rate – The Revival of the Real Economy,* Global Economics Paper 22, Goldman & Sachs.

Dynkin, A. A. (2004), *Integrated Business Groups in the Russian Economy,* Moscow: PSI Foundation.

Gurvich, E. T. (2004), "Makroekonomicheskaja Otsenka Roli Rossiiskogo Neftegazovogo Sektora", *Voprosy Ekonomiki* 10, 4–32.

Milov, V. (2006), "The State Should Leave the Energy Sector", *Beyond Transition* 17/2, http://siteresources.worldbank.org/INTTRANSITION/Newsletters/21001352/AprilJune2006.pdf.

OECD (2004), *OECD Economic Surveys: Russian Federation,* Paris, http://www.oecd.org/document/62/0,3343,de_2649_34111_32474302_1_1_1_1,00.html.

OECD (2006), *OECD Economic Surveys: Russian Federation*, Paris, http://www.oecd.org/document/55/0,2340,en_2649_201185_37664695_1_1_1_1,00.html.

Tompson, W., M. Afanas'ev and P. Kuznetsov (1999), "The Price of Everything and the Value of Nothing? Unravelling the Workings of Russia's Virtual Economy", *Economy and Society* 28, 256–280.

World Bank (2004), *Russia: Transition Meets Development, Country Economic Memorandum for the Russian Federation,* (Moscow: The World Bank), http://siteresources.worldbank.org/INTRUSSIANFEDERATION/Resources/cem_eng_29062005.pdf.

Wright, G. and J. Czelusta (2002), *Exorcising the Resource Curse: Minerals As a Knowledge Industry, Past and Present,* Stanford University Economics Department Working Paper 02008, http://www-econ.stanford.edu/faculty/workp/swp02008.pdf.

Effects of Energy Price Changes on Russian Economy

Paavo Suni*

The Russian economy has greatly benefited from the rapid rise in energy and other commodity prices since 2001. The average price of Russian oil[1] was 69.1 dollars per barrel in 2007, 85.3 dollars in the last quarter of 2007 and close to 120 dollars per barrel in mid-May 2008. The average price in 2007 was three times higher than that in 2001. The prices of gas, coal and many other Russian export commodities have also climbed to new heights. However, so far it is oil which has dominated the generation of Russian export revenues with an export share of over one third. Oil and gas together accounted for 47 percent of Russian exports in 2007. In 2002 this share had been 32 percent (BEA 2008). Oil product exports have risen as well, although less rapidly, with shares of 10.4 in 2002 and 14.7 percent in 2007.

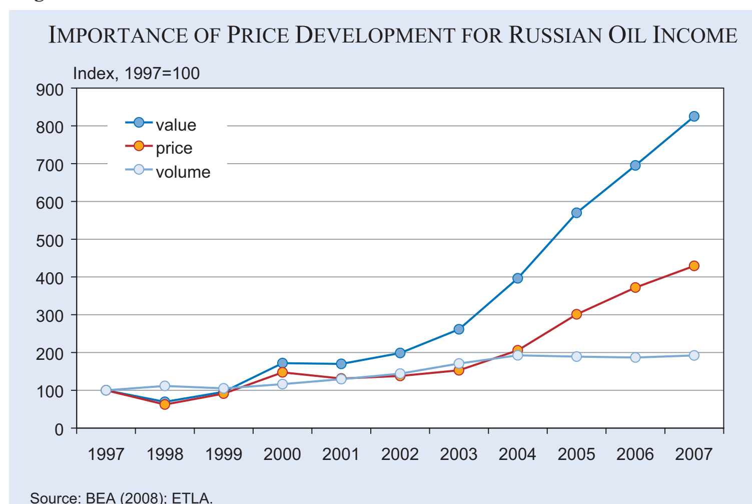
The estimates of the volume of oil and other energy production in Russia's total GDP vary. According to the World Bank (2004 and 2005), its share in GDP amounted to 25 percent in 2002. According to the Russian government, as quoted by Juurikkala and Ollus (2006), the energy sector accounted for 30 percent of Russian GDP in 2005 (see also Kaitila 2007).

The rise in the price of oil spurred Russian oil production as well as the volume of exports in the period 2001 to 2004. In the years between 2005 and 2008 the price increase has mainly dominated the substantial rise in export values (Figure 1). Oil is mostly transported by pipelines inside the country. This capacity has been supplemented by rail transports. Exports of gas have grown substantially as well, although the capacity of the export pipe lines has restricted the rise in volume as there is currently no liquefied natural gas (LNG) production in Russia. Export capacity is planned to be expanded by e.g. Nord stream lines in the Baltic Sea and Blue stream lines in the Black Sea.

Russia is a major player in global energy markets. The country was the world's largest producer of oil in 2007 with an output of 10 million barrels per day, which was 1.5 million barrels more than that of Saudi Arabia (IEA 2008). Russia has already been the world's largest producer and exporter of gas for a long time. It is currently also the fifth largest producer and the fourth largest exporter of coal. In the long run, the Russian dominance in the oil markets will diminish because the country's share in known global oil reserves is relatively small. Russia's role as a key energy producer will continue, however, as its reserves of coal and gas are very huge in international comparison.

According to British Petroleum (2007), Russia's oil inventories will only last 22 years if the scale of exploitation remains at the 2006 level. On the other

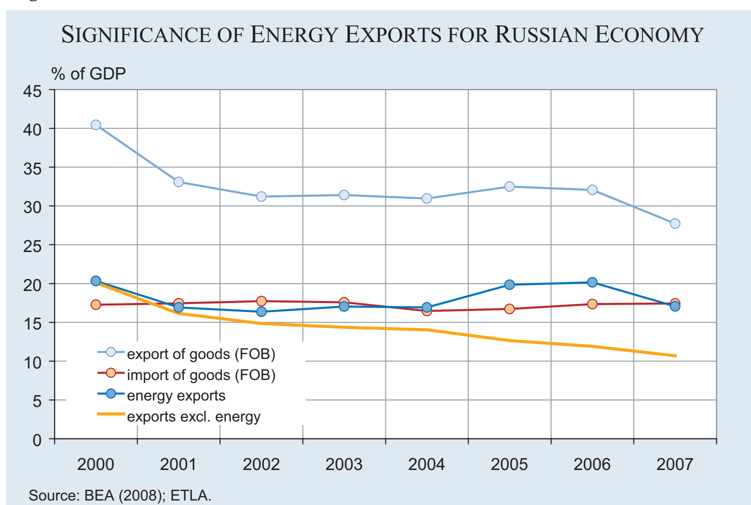
Figure 1



* ETLA – The Research Institute of the Finnish Economy, Helsinki.

[1] Mediterranean Russian Urals Spot Price. Russian oil is cheaper than e.g. WTI or Brent qualities as the rise in demand has concentrated on these "light and sweet" qualities. The price difference has fluctuated strongly and increased from 1–2 dollars to 2–10 dollars per barrel compared to the European Brent spot price in recent years.

Figure 2



Source: BEA (2008); ETLA.

hand, the country's reserves will last over 500 years for coal and 78 years for natural gas. This estimate overestimates the role of reserves, however, as both consumption and production tend to rise over time. Moreover, new discoveries, technological advances and especially higher prices will probably raise the reserve estimates as the (proven) reserves are a function of the price. The higher the price, the higher may be the costs of exploitation of the potential reserves. Since the late 1980s global oil reserves relative to production have been quite stable instead of declining. In fact, British Petroleum (2007) calculated this global adequacy ratio at 40.5 years in 2006, compared to only 29 years in 1980 (see also Suni 2007).

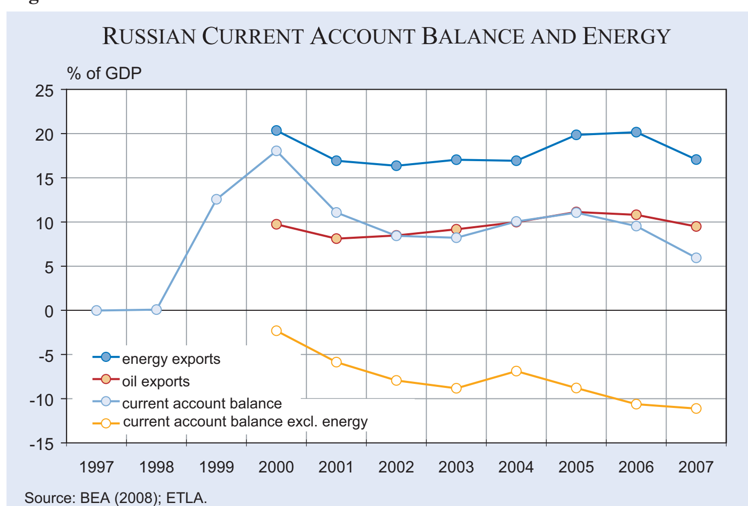
Figure 2 shows the value of energy and other exports in relation to GDP. The total exports-to-GDP ratio has remained relatively stable in nominal terms in 2001–06. World energy prices and thus Russia's export prices have risen considerably, but so has Russia's GDP in nominal terms. In 2007 the energy share declined, as the appreciation of the rouble decreased the energy export growth in rouble terms. The imports-to-GDP ratio has been rather stable. These developments disguise the slow growth in volume terms since 2004.

The value of energy exports is almost the same as the value of total imports, which means that the former can be used to finance the latter. However, it is worth noting that the value of non-energy exports is also rather close to the value of total non-energy imports. The volume of Russia's oil exports has been stable in the period 2004–07. This is due to increasing domestic demand and too little investment in fuel extraction. Crude oil accounts for 60 percent of the total value of Russia's crude oil, oil product and natural gas exports.

There is a marked price differential between the Russian Urals grade and other oil grades. The differential arises from the properties of Russian oil that do not meet well the market's demand which favours the so-called sweet and light oils at the expense of sour and heavy oils like that of the Urals. This is due e.g. to the tightening environmental regulation and the structure of global refineries, which makes the supply of light grades tight compared to heavy grades.

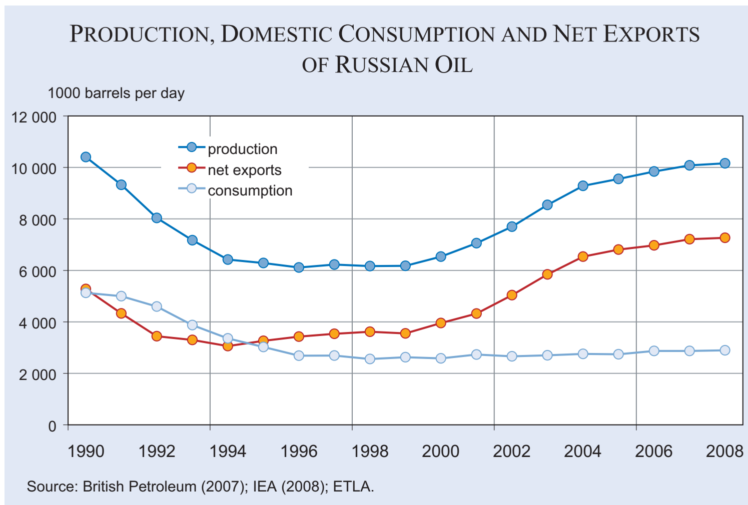
Russia has been taxing energy exports/production heavily, which has resulted in almost wiping out the large foreign debt inherited from the former Soviet era, eliminated the uncomfortable arrears in pensions and public salaries, and pushed the government and current account balances into surplus (Figure 3). Looking forward, Russia's oil production in volume terms is likely to peak during the next few years as has already happened in the United States, for exam-

Figure 3



Source: BEA (2008); ETLA.

Figure 4



Source: British Petroleum (2007); IEA (2008); ETLA.

ple. Production growth has already slowed down considerably (British Petroleum 2007; IEA 2008). The rise in exports is also constrained by expanding domestic oil consumption, although growth has so far been very modest (see also Figure 4). Consequently, any future effect from energy commodities, positive or negative, will be mostly based on world market price changes, which are notoriously difficult to forecast.

To sum up, oil price changes have undoubtedly have had a strong effect on the Russian economic "miracle" in the 2000s. This development has in fact been initiated and reinforced by the lagged effects of the 1998 collapse of the Russian rouble, which drastically improved the international price competitiveness of Russian products. The increase in oil prices, production and exports have markedly extended this step-wise effect.

Oil prices and the Russian economy in the light of simulations with NiGEM

There exist some interesting studies dealing with this issue. For example, Bebee and Hunt (2007) examine the effects of oil price rises according to the source of the shock. The oil price shock we have faced in the 2000s can be interpreted as a demand shock and thus, according to Bebee and Hunt (2007), it may be positive for the world economy, as the source is the strong rise in Asian demand in contrast to a reduction of oil supply. This interpretation fits well with the recent period of historically robust global growth.

Rautava (2002) has studied the effects of oil prices and exchange rates on the Russian economy using VAR methodology and co-integration techniques. He finds that in the long run a 10 percent permanent increase (decrease) in international oil prices is associated with a 2.2 percent growth (fall) in the level of Russian GDP. Respectively, a 10 percent real appreciation (depreciation) of the rouble is associated with a 2.4 percent decline (increase) in the level of output with significant short-run effects due to an error-correction mechanism. This implies large short-run GDP effects on the Russian economy similar to our permanent oil price rise simulations. Barrel and Magnusson (1996) have made interesting counterfactual simulations for the effects of oil prices on the Norwegian economy based on the National Institute Global Econometric Model (NiGEM).

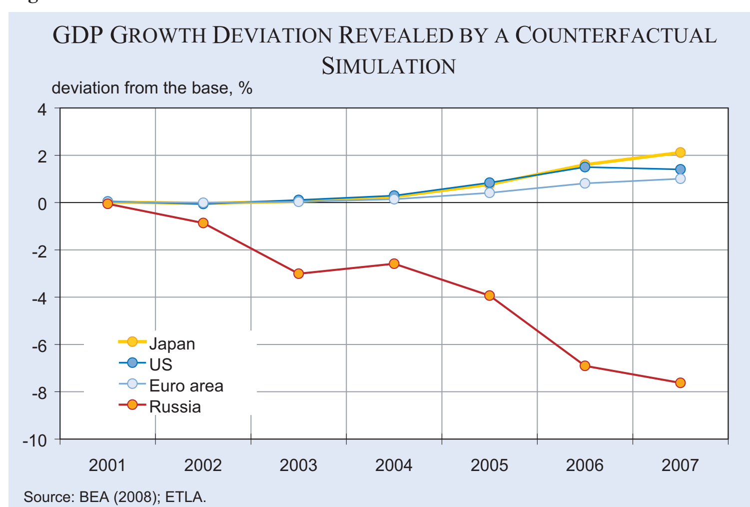
NiGEM is a tool used in economic forecasting and simulations of real economic developments up to the medium term. The Neo-Keynesian model contains a rich description of the world economy with 35 countries including Russia and 13 regions and their economic structure. Nominal shocks have a short-term impact while the effects are neutral in the long term. The world is closed in the sense that exports and imports as well as foreign liabilities and assets add up to world totals. The behaviour is described using error-correction models, where short-term dynamics are taking place around theoretically justified equilibria. The model is used extensively in both forecasting and simulations in the short and medium term. The forecast and simulations period can be extended to the end of the 2030s to facilitate the use of forward expectations (NIESR; Suni 2007).

The Russian model is less sophisticated than the models of other industrial economies, but it provides a systematic framework for analysing e.g. oil price effects. The Russian model has been revised recently and currently it is less responsive to oil price changes than e.g. shown by Suni (2007). The reason for the modification was to a large degree a surprisingly well-functioning oil fund that has dampened the effect of the rise in oil prices as intended. The government established the fund in 2004 to protect the economy against the windfall profits. The size of the fund was about 157 billion USD at the end of 2007 (BOFIT 2008). This corresponds to 12.3 percent of GDP.

We shall try to get a grip on the effect of the rise in oil prices on the Russian economy in two ways. First, we make a counterfactual analysis of Russian economic development in the 2000s with lower oil prices. Second, we try to assess the effects of the sensitivity of the current state of the economy on the changes in oil prices. These simulation attempts do not provide a final truth of this interesting issue, but give one additional reference point to assess the situation.

Figure 5

GDP GROWTH DEVIATION REVEALED BY A COUNTERFACTUAL SIMULATION



Source: BEA (2008); ETLA.

Counterfactual simulations

With counterfactual simulations we try to answer the question: What would have been Russian economic growth without the drastic hike in oil prices? The use of NiGEM allows us to consider this question in a global context, which we deem very useful as oil prices affect the global economy and developments would have been accordingly different if the oil price had been different. With the help of the model we can construct the new counterfactual global economic framework for Russian development.

We made the counterfactual simulation by fixing the oil price and the rouble/USD exchange rate in the period 2002–07. Basic options for monetary and fiscal policies were assumed. Exchange rates were set according to the interest rate differentials except for Russia, where the rouble/USD rate was fixed. Backward-looking expectations were adopted. This is a quite natural assumption as oil price rises in 2002–07 can be regarded as a surprise for most forecasters.

The counterfactual case was constructed as follows:

- The baseline scenario is the real development in 2001–07 as described in NiGEM.
- The price of oil (average price of Brent and Dubai grades) was fixed at 23.6 $/b, which was the average price in 2001 according to the NiGEM data base. For the period between the first quarter of 2001 and the last quarter of 2007, the dollar price of oil was set at an average 42.5 $/b, i.e. 43.9 percent lower than in reality.
- The dollar value of the rouble was fixed at 29.2 roubles per dollar, the average of the year 2001 for the same period, while the other currencies followed interest rate differentials.
- The central bank of Russia is assumed to have used a combined nominal GDP and inflation target like the Euro Area countries and Japan. The US central bank was assumed to use a Taylor rule.

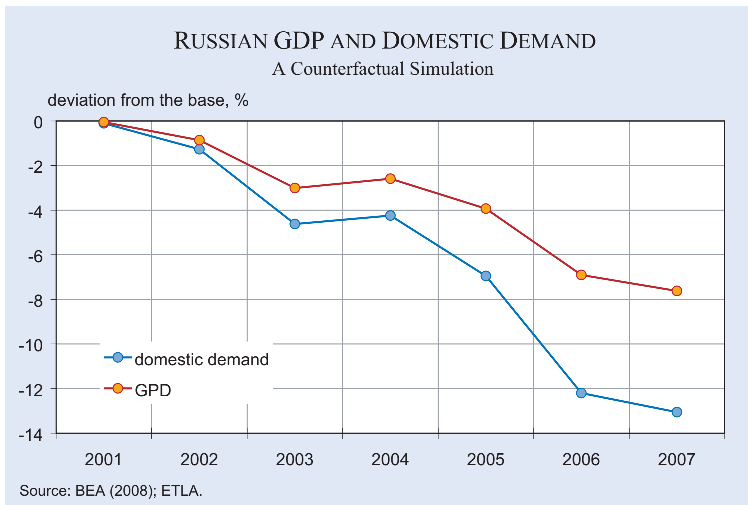
The oil price assumption is relatively close to the OPEC target set in March 2000, when OPEC agreed on a price band mechanism aimed at keeping the price of the OPEC basket between 22 and 28 $/b. On 30 January 2005, OPEC decided to suspend (temporarily) the price band mechanism as the prise had risen much higher (EIA 2006).

The first simulation was done by fixing the oil price and the exchange rate of the rouble *vis-à-vis* the USD as described above and otherwise utilising the standard assumptions of the model.

Lower oil prices in the counterfactual case have a positive effect on real GDP growth in oil-consuming countries as can be seen in the case of the Euro Area, the United States and Japan. The cumulative impact of lower oil prices for GDP growth in these countries vary around 1.5 percent in 2001–07. In the case of Russia the dominant role of oil in the economy makes the effects much larger and naturally negative. According to the results, the level of Russia's real GDP in 2007 would have been 7.6 percent lower if the oil prices had remained unchanged since 2001. This would have produced an average GDP growth rate of 5.3 percent in 2001–07 instead of the actual 6.6 percent (see Figure 5).

Domestic demand in Russia would have been hit harder than this, however, as seen in Figure 6. The

Figure 6



Source: BEA (2008); ETLA.

simulated real domestic demand is about 13 percent lower than in the actual baseline scenario. The average growth rate of domestic demand would have been 7.3 percent a year instead of 9.4 percent in reality. Government has succeeded to dampen part of the effect of the oil price rise by the use of the oil fund. Consequently the effects are lower also in the counterfactual case than in a previous simulation made in the end of 2006 (Suni 2007).

Both real GDP and domestic demand were marked by similar annual developments, although the changes were larger in the latter. During the first few years, the effect was minimal due to small changes in the oil price. As the oil price accelerated, the negative effects of the oil price would also have been increasingly larger. The rapidly diminishing levels are driven by weakening terms of trade and decreasing net foreign assets caused by lower oil prices.

The very strong positive external balance in the beginning of the decade deteriorated in both real world statistics and the counterfactual simulation. With the lower oil price, the current account would still show a large surplus in the counterfactual case albeit clearly lower than in the actual case. In 2007, it would be 6.4 percent of GDP instead of the actual 10.3 percent. Lower oil prices mean that nominal export revenues would be smaller, but, on the other hand, lower domestic demand would also translate into lower imports both in real and nominal terms. The latter partly compensates for the effect of lower oil prices on the current account. In terms of imports, the assumption of a fixed exchange rate is of course important, especially in the case of oil producers like Russia. Lower oil prices could justify a weaker rouble, but this would only translate into increasingly lower imports. Anyway the still existing current-account surplus suggests that the rouble would not need to be weaker than assumed.

Lower export revenues and weaker domestic demand lead to lower average consumer price inflation in our counterfactual scenario than in the actual case. This also means that the rouble would have appreciated less in real terms than in the actual case, which would have supported the trade and current account surpluses. Both lower inflation and GDP growth, on the other hand, lead to lower interest rates supporting economic growth.

To a large extent, GDP growth has been fuelled by the rise in export prices in Russia. We have only taken into account the price of oil here. As many other commodity prices have also risen, our results show a higher bound for the development without the price hikes. Taking into account the higher prices also in other commodities, a lower value of exports would have resulted in even larger negative effects for the Russian economy.

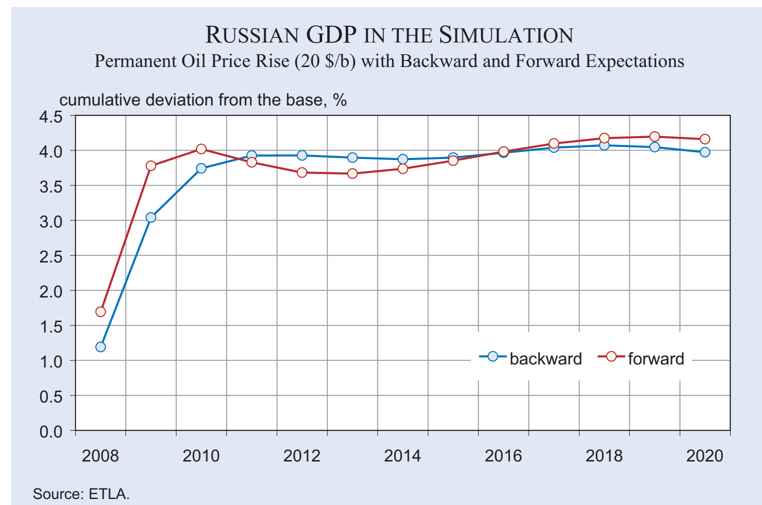
Naturally, the depreciation of the exchange rate could smooth drastically the results in case of a large shock. In the basic simulation, the rouble value of the USD was fixed. When the interest rate arbitrage was allowed to determine the exchange rate, the domestic demand reacted strongly leading to a rather large decrease in imports. As a result, the effect on GDP was milder than in the base case, as exports got some boost at the same time. The improbable case of fixed real exchange rates would have caused even more severe effects.

Looking forward

The counterfactual simulations show a strong dependence of the economy on the oil price, although the use of the oil fund has clearly decreased the dependency. The future of Russian economic development looks good in this respect if international energy and oil markets remain tight as generally expected. We simulated the effects of a rise of oil prices by 20 $/b.

The initial effects are large regardless of whether forward looking or backward-looking expectations on exchange rates, inflation, long-term interest rates and other variables are utilised (see NIESR). Using both type of expectations, most of the GDP effect will be felt for two years, followed by a rather stable development afterwards. GDP will rise permanently by about four percent. The effect of the oil price rise found in this study is, however, about half of Rautava's (2002) estimate, which does not take into account the effect of the oil fund.

Figure 7



Output in a commodity producing country is permanently affected by a permanent change in commodity prices, much as is the case for Russia in the simulations. The equilibrium level of unemployment will be reduced by higher commodity prices in such a country, and hence overall output will be higher. Real producer wages (nominal wages deflated by output prices) fall relative to real consumer wages (nominal wages deflated by consumer prices) because output is more heavily weighted by commodities than is consumption. The "wedge" between these two wage rates is an important determinant of the equilibrium level of unemployment as shown by Layard, Nickell and Jackman (1991). This decline in the wedge will raise equilibrium employment and hence the supply capacity of the economy. Although the impact of oil prices might be less than such an analysis indicates, other commodity production will become more labour intensive, and the overall direction of the effect on output is clear.

The effect of oil price changes on the Russian economy will be mostly driven by terms of trade changes, as the Russian supply of oil has stabilised and will obviously start declining soon, while its own demand is growing rapidly and international economic growth remains strong. In the future, the volume effect is, however, reinforced by rising gas and coal exports.

Russia will remain a key global energy producer

According to the counterfactual simulations, the role of oil has been a key driver of Russian economic development in the early years of this century. Given the short and insufficient Russian time series and, partly due to this reason, also rather underdeveloped models, the results contain a large amount of uncertainty. However, they provide one useful benchmark on the size of the effects of the energy price rise on the Russian economy.

So far, Russia has benefited from the higher price of oil by both exporting a larger volume in 2000–04 and the continuous rise in the oil price. Consequently, its domestic demand was boosted strongly. This development has initially been reinforced by the lagged but large effects of the 1998 Russian crisis, when the pronounced depreciation of the rouble drastically improved the international price competitiveness of Russian products. Depreciation strongly favoured domestic demand and exports at the expense of foreign products. These potentially visible lagged effects during the first simulation years have not been taken into account in the computations. According to the counterfactual simulations, the stabilisation of the oil price at the 2001 level would have had a significantly negative effect on Russian economic growth. Average GDP growth in 2001–07 would have been slightly below 5.5 percent, more than one percentage point lower than in the actual case. The strong effect is due to a large and rising price difference between the actual and counterfactual oil prices especially in the years 2003 to 2007, which would have meant pronouncedly smaller oil income than was actually achieved.

While the counterfactual simulations try to get a better grip on the past development from a very bad starting situation, the simulations of the future will reveal the model-based effects from the currently

very good economic situation. The effects of the permanent 20 USD price rise from the current level show an initial strong reaction to the rise with e.g. a solid boost to GDP growth and the current account. The effect would, however, quickly vanish after the rise (see Figure 7). In addition, the effects would not differ from one case to the other regardless of whether backward or forward-looking expectations are applied.

The temporary end of the current commodity boom would obviously cause serious difficulties for Russian economic development. The effects could be softened by the use of the oil fund as planned. The more robust growth would, however, necessitate drastic changes in the economic structure away from a resource-based economy.

There is a risk that, while energy effects dominate Russian economic development, the need to create fruitful circumstances for the growth of the non-oil sector is seriously underestimated, as the short-term gains from rapidly rising energy prices have been large. Here, more openness in the economy and the accumulation of the oil fund would serve as an important impetus to raise the productivity and the competitiveness of production outside the energy sector in the long run. The openness of the economy would provide the necessary competition to check the price structures and give correct price signals to the non-resource economy for its development.

WTO membership would be a good step in this direction. However, recent Russian policies to support the monopolistic nature of the energy sector as well as export duties raise the vulnerability of the economy to a decline in the prices of raw materials and energy in particular and may undermine the ability of the economy to move to a more balanced structure.

References

Bank of Finland Institute for Economies in Transition (BOFIT, 2008), *Russian Statistics*, http://www.bof.fi/bofit_en/seuranta/venajatilastot/index.htm.

Barrell, R and K. Magnussen (1996), *Counterfactual Analyses of Oil Price Shocks Using a World Model*, Statistics Norway Discussion Papers 177, Oslo.

Bebee, J. and B. Hunt (2007), "Rapidly Rising Energy Prices. Does the Driver of the Energy Market Imbalance Matter?", *National Institute Economic Review* 199, 114–125.

British Petroleum (2007), *BP Statistical Review of World Energy*, http://www.bp.com/statisticalreview

Bureau of Economic Analysis (BEA, 2008), *Russian Economic Trends (RET) Data*, Moscow.

Energy Information Administration (EIA, 2006), *International Energy Outlook*, http://www.eia.doe.gov/emeu/international/contents.html

International Energy Agency (IEA, 2008), *Oil Market Report: A Monthly Oil Market and Stocks Assessment*, April, Paris.

Juurikkala, T. and S.-E. Ollus (2006), "Russian Energy Sector – Prospects and Implications for Russian Growth, Economic Policy and Energy Supply", *BOFIT Online* 4, Helsinki: Bank of Finland.

Kaitila, V. (2007), *Free Trade between the EU and Russia: Sectoral Effects and Impact on North-west Russia*, ETLA Discussion Papers 1087, Helsinki.

Layard, R., S. Nickell and R. Jackman (1991), *Unemployment: Macroeconomic Performance and the Labour Market*, Oxford: Oxford University Press.

National Institute of Economic and Social Research (NIESR), *The NiGEM Model*, http://www.niesr.ac.uk/pdf/nigem2.pdf.

Rautava, J. (2002), *The Role of Oil Prices and the Real Exchange Rate in Russia's Economy*, Bank of Finland Discussion Papers 3/2002, Helsinki.

Suni, P. (2007), *Oil Prices and the Russian Economy: Some Simulation Studies with NiGEM*, ETLA Discussion Papers 1088, Helsinki.

An Assessment of Putin's Economic Policy

Anders Åslund*

Fate is not necessarily fair.[1] Some people are born with a silver-spoon in their mouth, and some just happen to be in the right place at the right time. Vladimir Putin should go down in history as one of the lucky ones who happened to be in the right place at the right time, as Talleyrand said about Lafayette, but accomplished little that was positive.

The cause usually precedes the effect, and that is all the more true of a monumental metamorphosis such as the change of an economic system. Putin's luck was that he was anointed president by President Boris Yeltsin in 2000, soon after Russia's transformation to a market economy had been sufficiently completed so that the country had reached high economic growth of 6.4 percent in 1999.

Russia was reformed in the 1990s

The 1990s formed Russia's heroic decade. Boris Yeltsin announced his market reforms in October 1991. Chief reformer Yegor Gaidar liberalized prices and trade, rendering Russia a normal market economy by 1994. Anatoly Chubais, Minister of Privatization, privatized so successfully that no less than 70 percent of GDP pertained to the private sector by 1997 (EBRD 2007).

Because of extraordinary political resistance by rent seekers, ranging from old state enterprise managers to novel oligarchs, Russia had an average budget deficit of 9 percent of GDP from 1993 until 1998. According to the World Bank, Russia's business subsidies amounted to no less than 16 percent of GDP in 1998, but they were of little or no social benefit. The lasting excessive budget deficit inevitably caused Russia's horrendous financial crash in August 1998 with both a default on treasury bills and a huge devaluation. Half of Russia's banks went out of business. Many foresaw the end of Russia's market experiment. In reality, however, Russia's financial crash completed the market transformation. It taught the Russian elite the importance of macroeconomic responsibility. Since 2000, Russia has had a sound budget surplus. The crash had multiple fortuitous effects.

First, the default forced vital fiscal reforms upon the country. As financing out of tax revenues was no longer available, the budget deficit had to be eliminated. From 1997 until 2000, the government slashed public expenditures by 14 percent of GDP. Russia's political inability to balance its budget disappeared because the only alternative was hyperinflation, which nobody wanted. All arguments about the impossibility of reducing public expenditures fell by the wayside. Now most subsidies were abolished, which also leveled the playing field for Russian business.

Second, the financial crash reinforced central state power and weakened the regional governors. The federal government could undertake a radical centralization by shifting revenues from the regions to the federal government. Federal revenues almost doubled as a share of GDP from 1998 to 2002, while total state revenues were close to constant. With the devaluation, foreign trade taxes, which were valued in foreign currency, increased sharply. The federal government could finally insist on cash payments, which eliminated barter.

Third, the government of Yevgeny Primakov continued the tax war on the oligarchs that the reformers had launched in 1997–98, and the newly strengthened state could beat the weakened oligarchs. The government started applying the tax laws to big enterprises, especially the oil and gas companies, which had previously enjoyed individually negotiated taxes. A new aggressive bankruptcy law imposed hard budget constraints on enterprises. As a result, arrears of pension and state wages dwindled, and the

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[1] An overall source to this article is Åslund (2007b).

monetization levelled the playing field. Consequently, many enterprises changed ownership, which revived them. Typically, old managers were forced to sell to young hungry entrepreneurs at rock-bottom prices.

The financial stabilization, monetization, and devaluation were the main catalysts behind Russia's high and steady growth of nearly 7 percent a year from 1999. All the main requirements of economic growth that Gaidar (1999, 210) had formulated were finally in place: "macroeconomic stability and low, predictable rates of inflation, an open economy plus access to promising markets, clear-cut guarantees of property rights and a respectable level of financial liability, high levels of individual savings and investments, and effective programs to aid the poor and to maintain political stability".

Putin's early reforms

At this moment an obscure official named Vladimir Putin entered the stage. He is often praised for these achievements, but the financial stabilization was undertaken in 1998–99 before he became prime minister, and Russia was already growing fast. Putin arrived at a laid table.

When Putin became president in 2000, he continued the "second generation" market reforms that had been formulated in 1996–97, and thanks to his newly-won parliamentary majority he could legislate them as Yeltsin never could. The three years from 2000 to 2002 were characterized by progressive economic reforms. Most impressive was the comprehensive, radical tax reform. The progressive personal income tax, peaking at 30 percent, was replaced with a flat income tax of 13 percent as of 2001. The corporate profit tax was reduced from 35 to 24 percent in 2001. Far more important was that most ordinary business costs became deductible, leveling the playing field. Social security contributions were cut from a flat rate of 39.5 percent of the payroll to an average rate of 26 percent. Tax collection was unified in one agency. Small-scale tax violations were decriminalized. The tax reforms reduced the threat to businessmen posed by tax inspection.

Russia finally woke up to its need for small and medium-sized enterprises. They had been depressed by a maddening array of red tape and bureaucratic harassment. In 2002, registration, licensing and standardization were simplified, and inspections were restricted. This broad effort at deregulation improved the situation, and the amelioration has proved sustainable. The number of officially registered enterprises has steadily increased by more than 7 percent a year, and by 2006 the total number of registered enterprises in Russia had reached almost 5 million, quite a respectable number. Still, the patriarchic surveillance system remains in place, and more radical deregulation is needed.

The privatization of agricultural land was the last ideological barrier to abolish. This was done when, on July 24, 2002, the Duma finally legalized the sale of agricultural land. It was a compromise, requiring each region to adopt a law to make the federal law effective. As a consequence, communist regions could withhold agricultural land from sale, while more liberal regions allowed the sale of land. In practice, private ownership of agricultural land developed only gradually, and good connections with regional governors were vital for land purchases. Yet, this last communist taboo was also broken. By 2002, Putin had established himself as a credible authoritarian reformer in the line of General Augusto Pinochet and Lee Kuan Yew.

Putin opts for re-nationalization and corruption

In 2003, however, Putin's economic policy changed track. He ousted his reformist Prime Minister, Mikhail Kasyanov, and chief of staff, Aleksandr Voloshin, relying ever more on his cronies from the St. Petersburg KGB. His reforms, which were only half-way done, came to a screeching halt. The signal event was the confiscation of the Yukos oil company. In 2003, Yukos was Russia's largest and most successful company, but Putin clamped down on it ruthlessly and lawlessly, engineering its confiscation. He did so for primarily two reasons. He wanted to emasculate its main owner, Mikhail Khodorkovsky, the most independent and outspoken of the big businessmen, and Putin's collaborators wanted to seize Yukos' lucrative assets cheaply. Repeatedly, Putin met with foreign portfolio investors to reassure them that Yukos would not be confiscated, expropriated or nationalized, after which he did exactly that.

The Yukos affair started a wave of re-nationalization. State enterprises have been buying big, successful private companies either at a high prices in vol-

untary deals, accompanied by rumors of sizable kickbacks, or the sales are forced and the prices are low. No economic rationale is evident in any single case. The most likely purpose of re-nationalization is corruption, while ideological motives are conspicuously absent. Two of the most aggressive predators, the oil company Rosneft and the bank VTB, sold their shares to private foreign investors in large international initial public offerings (IPOs) in London in 2006 and 2007, respectively.

The Russian re-nationalization has had a limited, but negative impact on the economy, which is most evident in the current stagnation of oil and gas production, but also in banking, and machine building. Fortunately, two-thirds of the Russian economy is still in private hands, including the metals, retail trade, and construction sectors. The aggregate indicator that has suffered the most is investment, with Russia's official investment ratio remaining rather low despite the economic boom. Liberal leader Boris Nemtsov (2007) commented upon the re-nationalization: it is offensive that under Putin the state has taken on the role of plunderer and racketeer with an appetite that grows with each successive conquest. But the greatest calamity is that nobody is allowed to utter a word in protest regarding all this. "Keep quiet", the authorities seem to say, "or things will go worse for you. This is none of your business".

In 2004, the international oil prices took off, filling the Russian state treasury and boosting its international reserves. Russian exports started skyrocketing, mainly because of the rising commodity prices. The consequence in Russia, however, was not a higher growth rate but aggravated repression, corruption, re-nationalization, and all economic reforms stalled. For Putin, the high international oil prices became a license to be as authoritarian and corrupt as he really wanted to be. During his last five years in office, President Putin has not undertaken any reform worth mentioning.

Putin has effectively condoned corruption among his friends, and it is hardly an exaggeration to say that everything is for sale in Russia. People pay bribes to enter university, to escape military service, to stay out of prison, and to land a good job. Until the late 1990s, the selling of top offices was not an issue, but by 2004 it had become endemic.

Until October 2007, Putin maintained impressive fiscal discipline with budget surpluses every year from 2000. Then, all of a sudden, he seems to have lost his nerve. In the midst of rising inflation, he abandoned that achievement as well, boosting public expenditures. By May, inflation had surged to 15 percent. The Russian government needs to return to its prior excellent fiscal policies to cool the economy down. In addition, the Central Bank needs to adopt inflation targeting, allowing the exchange rate to appreciate with the large currency inflows.

When Putin became president in 2000, he promised that Russia would join the World Trade Organization by 2003, but it is not likely to join even in 2008 because Putin has allowed various protectionist interests to override Russia's national interest. This stands out as one of his most spectacular failures.

No less than *Time* magazine praised Putin as their man of the year 2007 for the stability he had brought to the country, but what stability? Russia's murder rate has been higher under Putin than under Yeltsin and is currently four times higher than in the United States. The change is real but only in its presentation thanks to the ubiquitous censorship that Putin has imposed. What remains of Putin's economic legacy is only that he was lucky to reap the benefits of the arduous but productive reforms his predecessor instigated in the 1990s (Milov and Nemtsov 2008).

Russia: No longer normal

In 2004, *Foreign Affairs* published a seminal article by Andrei Shleifer and Daniel Treisman. They argued that Russia was a "normal country": "Russia was in 1990, and is today, a middle-income country with GDP per capita comparable to Argentina in 1991 and Mexico in 1999. Almost all democracies in this income range are rough around the edges: their governments suffer from corruption, their judiciaries are politicized, and their press is almost never entirely free. They have high income inequality, concentrated corporate ownership, and turbulent macroeconomic performance. In all these regards, Russia is quite normal". Steven Fish (2005, 130) noted that Russia was "just as corrupt as one would expect it to be, given the prominence of natural resources in its exports". The oil revenues are obviously a cause of Russia's authoritarianism and corruption, but both have become quite extraordinary.

Russia has gone through three major developments in the last eight years. First, Russia's GDP has grown by 27 percent a year measured in current US dollars. Second, the country has moved from being partially democratic to authoritarian rule by Freedom House (2007) standards. Third, it has stayed equally corrupt according to the measurements by the World Bank (2007), the European Bank for Reconstruction and Development (2007) and Transparency International (2007), while corruption has abated elsewhere (see also Anderson and Gray 2006). In these regards, Russia is no longer normal but extreme. Many draw parallels between Russia and China, but even today, after 30 years of high economic growth, China's GDP per capita at current exchange rates is merely one quarter of Russia's. Unlike Russia, China is still a developing country. It is more authoritarian than Russia, but according to Transparency International' assessment, it is less corrupt.

By the measures of the outstanding political sociologist Seymour Martin Lipset (1959), Russia is too rich, too educated, and too open to be so authoritarian. The faster Russia grows, the greater this contradiction becomes between an increasingly obsolete political system and a swiftly modernizing economy and society. This contradiction is likely to be untenable in the medium term. No modern society can function without reasonable information or checks and balances. A Russian president cannot make decisions of high quality about everything, after having abolished all feedback and concentrated so much decision making in his own hands. During President Vladimir Putin's reign, the Russian regime became too rigid and centralized to handle crises, which always occur. Therefore, this regime can hardly be very stable.

Russia has become an outlier. At present, Russia's GDP per capita measured in purchasing power parties, that is, standard of living, is a respectable one-third of that of the European Union. Only eight countries in the world are richer than Russia and still not democratic, namely Singapore and seven small oil states (World Bank 2007; Freedom House 2007). Authoritarian rule is usually a means of the rulers to hide and sustain their corruption. According to Transparency International (2007), the only country that is both richer and more corrupt than Russia is Equatorial Guinea. That is hardly a standard worthy of a great, historic European nation.

Russia has long distanced itself from the upper middle-income countries, Argentina and Mexico, with which Shleifer and Treisman (2004) associated it. Russia has grown faster, but it has become more authoritarian and corrupt. The conclusion is not that authoritarianism and corruption are good for development, but that Putin has been lucky. He has been drowned in oil money, so that he could make Russia as authoritarian and corrupt as he really wanted to. No large state with an educated population has managed to maintain authoritarian rule or stay so corrupt at Russia's level of economic development. Therefore, it seems natural for Russia's dictatorship to collapse in the near future, as happened even in countries with strong authoritarian traditions, such as Taiwan and South Korea.

The structural reasons to expect such a change in Russia in the near future are many. First, opinion polls show that Russians are as upset as any other nation about corruption and they have more of it. Information about corruption is abundant. Only fools do not believe that the government aims at the promotion of corruption. Second, the mismanagement of the large state corporations and apparent kickbacks of up to 50 percent on major infrastructure projects are outrageous. Russia's corruption might be the greatest in world history in terms of the absolute amount individuals receive and the relative share of the kickbacks. Claims that Putin and his close friends have stolen billions of dollars from the state or private businessmen abound, but so far Putin has never reacted, which is evidence that he approves of such activities (Milov and Nemtsov 2008). Third, incredibly but fortuitously, Putin decided to resign as president, although he stays as prime minister, which grants Russia an ambiguous dual power structure. But in Russia, power rests in the Kremlin, where the president sits. Not surprisingly, President Dmitri Medvedev has started his term by launching an anti-corruption campaign.

A state that is as corrupt as Russia is not strong but dysfunctional and thus weak. Corruption poses a systemic threat to the Russian state, notably the quality of education and health care. Is the Russian state able to carry out any major infrastructure project? The country suffers a desperate shortage of qualified labor because much of the education has been debased by corruption, and the government has made no attempt to clean it up. Russia can no longer afford this corruption that contributes to the current inflation crisis.

Russia needs to restart its reforms

It would only be fair to let President Putin himself make an assessment of Russia's current state of affairs. On February 8, 2008, one month before the end of his second term, he gave a speech to the State Council that appeared like an annual address to the nation, entitled: "On Russia's Strategy of Development until 2020".

The President bragged at length about "everything that was done during these eight years", but he seemed unaware that it boiled down to one single achievement – an economic growth of 7 percent a year, but that growth record puts Russia in twelfth place among 15 former Soviet republics since 1999 (Åslund 2007a; EBRD 2007), in spite of its abundant oil revenues, which is not very impressive. With imports increasing by 35–40 percent a year, and energy production stagnating, Russia's current account surplus is likely to disappear within two years, given that oil prices can hardly continue rising in the midst of a Western economic slowdown.

Putin's unproductive two-term presidency leaves a huge backlog of reforms that can no longer be ignored. Russia badly needs to restart serious market reforms. Putin's greatest failure is that male life expectancy has not reached more than 61 years of age, which he rightly called "a shame". Russian men are drinking themselves to death, and an effective anti-alcohol policy is the nation's greatest need, but Putin has not lifted a finger. All state systems are in crisis: health care, education, law enforcement, and the military. Russians are greatly upset over the miserable state of the ailing public health care system. Substantial reform plans were drawn up in 1996–97, but Putin has failed to implement them, only increasing funding somewhat. Such a wealthy country can no longer make do with a third-world health care system.

Russia suffers from a stark shortage of skilled labor, although its youth try to invest in own human capital. According to UNESCO's comparative statistics, two thirds of Russian youth attend higher education, more than in Europe, but the education they receive is largely of poor quality, because the public education system is malfunctioning. As in health care, corruption and vested interests of the bureaucracy cause these ills. Cures have been tested in limited experiments. Standardized national tests should be made compulsory and the only criteria for acceptance to higher education. All oral exams should be prohibited as sources of corruption. Both universities and hospitals need substantial financial independence being financed by the state for their services, not for their mere existence. They should become independent foundations, being accountable to a board of trustees. Finally, Russia's public infrastructure has been so neglected that Moscow's traffic has repeatedly come to a complete halt for six hours.

In his speech, Putin acknowledged that "the state apparatus is to a considerable extent a bureaucratized, corrupt system, which is not motivated to support positive changes or dynamic development". Indeed, to impede Russia's corruption requires democratization, which has reduced corruption in Ukraine (Transparency International 2007).

One of the hallmarks of Putin's second term has been the re-nationalization of big, healthy, successful private companies. Now even Putin, the main author of this policy, realizes that he has gone too far: "a private company, which is motivated by the results, if often better at management than a civil servant, who does not always have even a perception of what efficient management amounts to or what a result is". A grand task is to rein in re-nationalization and reverse it. Russia can neither be an efficient market economy nor a democracy as long as the state is dominated by a few state monopolies. These monopolies must be broken up, not consolidated. It should also prohibit Russian state corporations from borrowing funds in the West, which they use for harmful re-nationalization.

The proudest economic reform of Putin's first term was the tax reform, which decriminalized most tax violations and reduced the powers of the arbitrary tax authorities. Alas, through the Yukos affair Putin erased many of these achievements, and now anew he had to emphasize "the need for a simplification of the tax system to minimize the opportunities of arbitrary interpretation of the legislation". His call for a lower tax burden drew applause.

It is true that Russia's growth in the last nine years has been substantial and beneficial, but it is all the more striking for the many problems that have accumulated because of the near absence of structural reforms after 2002. President Dmitri Medvedev badly needs to re-launch Russia's reforms. The current global economic slowdown tests the quality of

economic policy throughout the world. Russia is likely to escape the first onslaught because of high energy prices, but when they moderate Russia will also be probed.

References

Anderson, J. H. and C. W. Gray (2006), *Anticorruption in Transition 3: Who Is Succeeding … and Why?,* Washington DC: World Bank.

Åslund, A. (2007a), *How Capitalism Was Built: The Transformation of Central and Eastern Europe, Russia, and Central Asia,* New York: Cambridge University Press.

Åslund, Anders (2007b), *Russia's Capitalist Revolution: Why Market Reform Succeeded and Democracy Failed,* Washington DC: Peterson Institute for International Economics.

European Bank for Reconstruction and Development (EBRD, 2006), *Transition Report 2006*, London: EBRD.

Fish, S. (2005), *Democracy Derailed in Russia: The Failure of Open Politics,* New York: Cambridge University Press.

Freedom House (2007), *Freedom in the World 2007: Selected Data from Freedom House's Annual Global Survey on Political Rights and Civil Liberties,* available at http://www.freedomhouse.org

Gaidar, Y. T. (1999), *Days of Defeat and Victory,* Seattle, WA: University of Washington Press.

Lipset, S. M. (1959), "Some Social Requisites of Democracy: Economic Development and Political Legitimacy", *The American Political Science Review* 53, 69–105.

Milov, V. and B. Nemtsov (2008), *Putin: Itogi (Putin: Results),* available at www.lenta.ru

Nemtsov, B. (2007), Putin Must Be the Luckiest Person on Earth, *Moscow Times,* July 19.

Putin, V. (2008), *Speech at Expanded Meeting of the State Council on Russia's Development Strategy through to 2020,* February 8, www.kremlin.ru (accessed on February 10, 2008).

Shleifer, A. and D. Treisman (2004), "A Normal Country", *Foreign Affairs* 83/2, 20–38.

Transparency International (2007), *Corruption Perceptions Index,* available at http://transparency.org

World Bank (2007), *World Development Indicators,* available at http://devdata.worldbank.org/dataonline (accessed on various dates).

Yeltsin, B. (2000), *Midnight Diaries,* New York: Public Affairs.

State-led, Oil-fuelled Development: Is That Good for Russia's Future?

Philip Hanson*

Russian economic policy-makers are taking an optimistic view of Russia's future. After nine years of GDP growth at an average rate of 7.0 percent per annum, this is understandable. My aim in this article is to offer an assessment of their vision of the future. The question to be addressed is whether a continuation of state-led and oil-fuelled growth, even if the official strategy is to diversify the economy, is likely to produce the strong growth that is anticipated.

Some recent Russian government forecasts

In recent months a number of economic projections and forecasts have emerged from the Russian government. They come from different parts of the executive branch and are not integrated into a single, agreed programme. Some are elaborated in detail but are so far drafts not yet approved by the government as a whole. These include Minpromenergo's draft "conception" of an energy strategy from 2005 to 2030 (Minpromenergo 2007) and the Ministry of Economic Development and Trade (MERT) draft programme of social and economic development to 2020 (for a discussion of which, see Mau 2008). Firmer in status is the Ministry of Finance's three-year rolling federal budget; this is already approved, but it could be revised, as the 2007 budget was. Then there are the figures, rather few of them, given by Prime Minister Putin in his address to parliament on 8 May 2008 ("Nastuplenie na bednost'," Rossiiskaya gazeta, 9 May 2008). These look precise but turn out at second glance to be of uncertain meaning. Thus expenditure on healthcare from the national and sub-national budgets combined will be close to two trillion roubles in 2010, about four times the 2004 level. Is this in current prices or, if in constant prices, of what year?

In short, the details of government projections are often hard to pin down.

At the same time, the general orientation is clear. Russia is to diversify its economy, pursuing an 'innovation' strategy. Its GDP growth is to exceed 6 percent a year up to 2020, with investment growing over that same period at more than 10 percent annually, while spending on research and development (R&D) is to rise from 1.8 to 4.0 percent of GDP, and therefore to grow at about 14 percent a year over 12 years.[1]

This is the preferred "innovation" scenario, but the current official Russian understanding of innovation is the opposite of Joseph Schumpeter's. Instead of creative destruction from below by entrepreneurs, R&D is supposed to be state-led, with the new state holding companies in the vanguard: Rostekhnologii, Rosnanotekh, Rosatom, United Shipbuilding Company, United Aircraft Company, etc.

At the same time Minpromenergo specialists are drawing up a revised energy strategy for the period 2005–30, replacing the existing 2000–20 strategy, finalised in 2003. The most striking feature of the early draft of the new strategy (Minpromenergo 2007) is the confidence with which downside risks are omitted, even in the less favourable ('conservative') of the two scenarios offered. It is explicitly assumed that the world as a whole will see only very slow growth in hydrocarbons production, while nominal oil prices stay in a historically high range. Against this background two scenarios are offered for Russia. Table 1 shows some key figures from them, alongside some GDP growth figures from the MERT socio-economic programme in its "innovation" variant – the variant that has been implicitly adopted by Prime Minister Putin.

* Chatham House, London.

[1] The 14 percent growth rate of R&D is my inference, not something given by MERT. It is a guesstimate. If the R&D/GDP percentages were calculated in projected current prices and the price deflator for R&D was expected to be different from the GDP deflator, the implied "real" R&D growth rate would be different.

Table 1

Some Russian government projections for 2005–30

	2005A*	2010	2015	2020	2025	2030
Minprom 1						
Urals oil price ($/b)	50.6	48	52	58	65	75
Oil output (mn t)	470	490	500	510	520	525
Gas output (bcm)	638	650	660	670	710	730
Minprom 2						
Urals oil price ($/b)	50.6	63–64	62	65	75	85
Oil output (mn t)	470	510	530	550	565	570
Gas output (bcm)	638	670	705	750	780	800
MERT innovation scenario						
GDP growth in % (over previous five years)	..	..	6.3	6.6	..	

Notes: A* denotes actual; other numbers are scenario projections; Minprom 1 is the Minpromenergo conservative scenario; Minprom 2 is the Minpromenergo favourable scenario; oil and gas output figures are annual rates in the year indicated; oil prices are actual or projected annual averages.

Sources: Minpromenergo (2007), Tables 3.1, 3.2, 3.6 and 3.7: MERT projections as reported in Mau (2008), Table 3.

The MERT and Minpromenergo projections have been developed semi-independently; where they overlap in coverage they do not always agree on precise numbers. Nor, of course, do they cover the same periods. Still, it seems legitimate to take them together as a source of insight into how Russian officials, at least when putting their forecasts on record, view the likely future. Considered against the background of recent policies, they support the following interpretation of Russian official views.

- The world nominal oil price may dip a little in the medium term but will be on an upward trend. The worst-case scenario is still pretty good for oil exporters.
- Russian output of oil and gas will not fall in any of the benchmark five-year periods.
- Russia's output of oil and gas will grow slowly (average annual growth rates of 0.8 and 0.9 percent in 2005–30 at most for oil and gas, respectively).
- Export earnings from hydrocarbons can be relied upon to grow strongly nonetheless.
- The economy will be diversified primarily by state-supported R&D funding and state-supported investment in education and in telecommunications, aerospace, and other "high-technology" industries.
- Public-private partnerships, particularly in infrastructure projects, and foreign participation will be part of the diversification process, but will be subordinate to state-directed strategy. This is implied by the coverage of the state holding companies listed above, and by the coverage of the law on foreign investment in strategic activities, signed on 5 May 2008. (On the latter, see *BOFIT Weekly,* 9 May 2008.)

The question is: how effective can such a strategy be? I will consider this in two stages: first, the influence of the hydrocarbons sector; second, concerns about growth and diversification more broadly.

Any answer to the question of effectiveness has to be a judgement of likelihood. It is possible that oil prices will remain in a historically high nominal range for a long time; it is possible that the Russian economy will continue to grow at something like recent past rates for a long time; it is possible that such growth will be accompanied by successful diversification so that by 2020 Russia has, as the MERT planners intend, become a competitive knowledge-based economy. My contention here is that the last of these possibilities is not likely while present policies are maintained.

Assessment (1): The role of the oil and gas sector

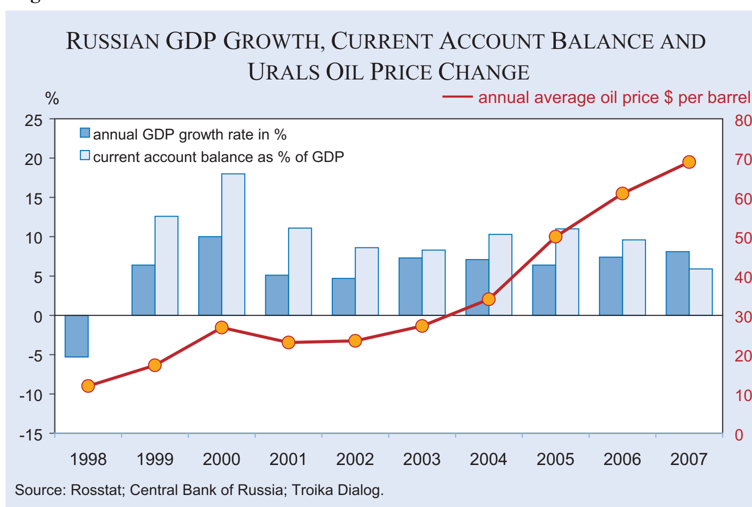
In this section I consider the role of energy in future Russian development. The relevant concerns are the oil price (affecting export earnings from oil products and gas as well as crude oil), production bottlenecks, and the so-called "resource curse". The first two considerations are to do with the short-to-medium term (say, up to five years). The third consideration is long-term.

To begin with, a sustained and substantial fall in the oil price would in the short to medium term tend to reduce Russian economic activity, other things equal. For example, one econometric study concludes that a sustained $10/barrel rise or fall in the oil price generates a 2 percent rise or fall in Russian GDP, when other influences are controlled for (Ollus 2007). This effect comes through the

change in the Russian terms of trade and the impact on revenues and hence on consumption, investment and government spending.

The Reserve Fund – formerly known as the Stabilization Fund – provides some insulation. It sterilises part of the currency inflow from hydrocarbons export earnings, to lessen the inflationary effect. It also gives some protection for the budget, since around half of federal budget revenue comes from oil and gas-related taxes; the Reserve Fund is a source of finance for expenditure commitments if those revenues fall sharply. However, public spending has increased strongly in 2007–08, and become more vulnerable to oil price declines than before. Previously the Ministry of Finance was able to get approval for federal budgets that would be in surplus at a Urals oil price above $30 a barrel; in 2008, before any upward spending revisions are made, the breakeven point is $60 (Sutela 2008).

Figure 1



RUSSIAN GDP GROWTH, CURRENT ACCOUNT BALANCE AND URALS OIL PRICE CHANGE

Source: Rosstat; Central Bank of Russia; Troika Dialog.

In general, a sharp fall in the oil price would be likely to disturb investor confidence in Russia. For good reasons, perceptions of Russian prospects and the likely future strength of the rouble are closely tied to the state of the oil market. In May 2008 Goldman Sachs, Merrill Lynch and Deutsche Bank were reportedly advising their clients that the rouble was a currency with a very high potential for appreciation (*Vedomosti*, 12 May 2008). That judgement would change if the oil market changed drastically.

How likely is such a development in oil prices? Not likely at all in the foreseeable future, according to most analysts. However, as Egor Gaidar has noted, it is precisely when everyone expects the oil price to stay high in the long term that it becomes worthwhile for businesspeople to invest in energy-saving technologies (Gaidar 2007). One could add that this is also precisely when it becomes attractive to develop high-cost energy sources, affecting the market on the supply side.

Gaidar (2007) also contends that a fall in the oil price contributed to the collapse of the Soviet Union, whose policy-makers had allowed the economy to become too dependent on oil export earnings – principally to buy food. He goes on to argue that contemporary Russia, albeit with some very important differences, is running the same risk.

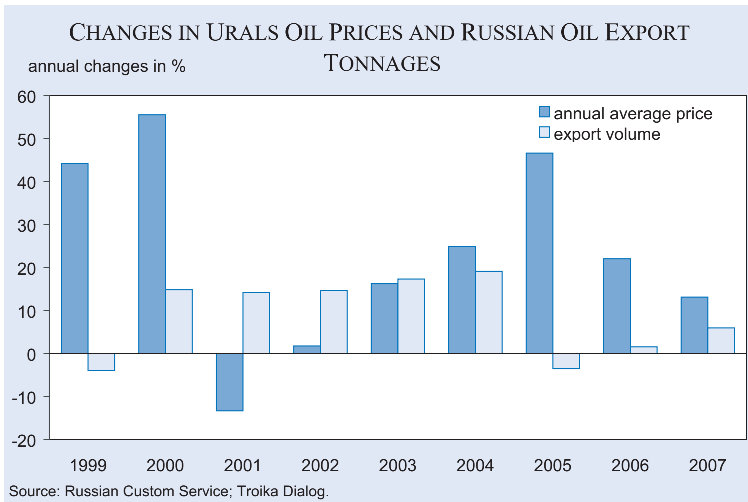
From 1999 until today Russia has benefited from mostly rising oil prices. Figure 1 illustrates this.

The second issue is Russian oil and gas production and export supply prospects. The official view, as we have seen, is that production will rise, albeit slowly, without any acknowledged interruptions, at any rate across bench-mark five-year periods.

This rosy view is open to doubt. In fact, Russian gas production decreased slightly in 2007, and oil output was down year on year in first-quarter 2008 (see Milov 2008; *BOFIT Weekly,* 25 April 2008). These might be only brief blips, but they occur against a background of rapidly decelerating oil output growth. That has been reflected in an equally marked deceleration of oil export volumes (crude plus products), as Figure 2 illustrates. Rising prices have continued to enlarge export earnings and thus stimulate the economy, but the earlier period of rapid petroleum output and export-volume growth between 1999 and 2004 has come to an end. Figure 2 illustrates the deceleration in oil export volumes.

The slowdown in oil production is often ascribed to the "end of easy oil" in Russia, as the limits to boosting output from established fields were reached. But it is striking that the preceding rapid output growth was generated by private companies, notably, Yukos,

Figure 2



Source: Russian Custom Service; Troika Dialog.

Sibneft and TNK. The owners of these companies were probably uncertain about the long-term security of their property rights, and that inhibited them from investing in new fields. As things turned out, at any rate for Yukos and Sibneft, those apprehensions proved to be well-founded. State ownership accounted for 11 percent of oil production in 2004 and 39 percent in 2007 (Milov 2008), and no Russian state hydrocarbons company has yet demonstrated an ability to grow its business except by acquisitions. The modest (2.3 percent) increase in oil production in 2007 is largely accounted for by foreign-led development projects on Sakhalin *(ibid)*.

The state has also restricted output by maintaining the state-controlled company Transneft's monopoly of export pipelines, and developing that network only slowly. And it has imposed a heavy tax burden on the oil industry. Now natural resource extraction tax rates for oil are to be reviewed with a view to reducing that burden (Sterkin 2008). That should help, but it may not be enough to prevent a plateauing or even decline in Russian oil output in the medium term.

Russian gas production, very largely controlled by the state in the form of Gazprom, has been sluggish throughout the post-Soviet period (and in the late Soviet period, too). One expert assessment is that annual investment of the order of $4–5 billion in the Yamal fields would be needed to prevent a decline in gas output in 2008–15, while the current actual rate is about $1 billion (Milov interview 2008).

The Russian state therefore faces problems in maintaining its export earnings from oil and gas over the next few years unless the oil price keeps on rising; an oil price that simply remains in a historically high nominal range may not be enough.

There are two sources of rescue from this problem, apart from a turnaround in the trend of extraction rates, and both are to do with gas. They are the import and re-export of growing quantities of Central Asian gas and a drastic curbing of domestic gas consumption. The former is already built into the draft energy strategy to 2030, so what is required on that front is that production in Turkmenistan and Kazakhstan (the main sources) does indeed grow as expected. The latter would most likely be secured by further rises in the domestic price of gas – at present centrally controlled for both business and household customers at levels latterly around one-third of the "European" price: the netback border price of gas delivered to Europe, exclusive of transport costs and export duties.[2] Domestic prices are being raised but the "equalization" of domestic and European prices, originally due in 2011 for industrial users, has been postponed. Even administered-price rises help, but the present domestic industrial-user price, at about one-third of the "European" price, is bound to encourage more wasteful domestic use of gas than a de-controlled price would do.

One hopeful sign is the re-emergence of big business as a source of open criticism of excessive state control of the energy sector. As chairman of the energy committee of the Russian Union of Industrialists and Entrepreneurs (RUIE), Vagit Alekperov voiced such criticism in April 2008 (*Interfax*, 21 April 2008). Alekperov is also the boss of Lukoil, so his views are hardly impartial. What is striking is that Alekperov also has a reputation for having close political contacts, and the RUIE has been extremely docile from the Yukos case (starting in 2003) until very recently.

The third concern is of a different order: the evidence that countries with a high ratio of natural-resource exports to GDP have tended, other things equal, to have sluggish growth in the long term

[2] Some "over-quota" gas is traded in a free market but that has not prevented some shutdowns of gas-fuelled power stations because of gas shortages.

(Sachs and Warner 2001). This observation is not well understood, and there can be no certainty that it will apply in all cases. However, Gaidar and other liberal Russian economists mostly take the view that oil and gas wealth, in a period of high and rising oil prices, has weakened incentives for reform and created problems for Russian competitiveness in non-natural resource tradable goods. Imports of manufactures have certainly risen faster than domestic production (Ollus and Barisitz 2007), though that is not conclusive evidence of Russia succumbing to the so-called Dutch Disease (from which the Dutch recovered pretty well).[3]

From this point of view, a collapse in the oil price would be good for Russia – but only in a long run of uncertain duration.

To sum up: Russian policymakers appear to be relying on a benign environment of high oil prices continuing. They could be right, but there are a number of downside risks in this reliance on energy that appear to be underplayed in current Moscow official thinking. And one of those risks, paradoxically, is that even a continuation of historically high oil prices may, if one can judge from historical evidence in other countries, have side-effects that hinder successful diversification.

Assessment (2): State-led modernisation

The shift towards state-led development in Russia begins with the Yukos case in 2003. I have discussed this at greater length elsewhere (Hanson 2007) and will only summarise here the main conclusions about these recent changes.

First, state control has been asserted primarily in the oil industry (gas was already state-controlled), in a milder form in banking and in an array of so-called "strategic" industries that are mostly defence-related but which are characteristically not run by the state in OECD countries: they include shipbuilding and aerospace, as well as nuclear energy, for example.

Second, the increase in state control has been achieved, in a great many cases, without due process and with often blatant manipulation of state administrative power: claims about unpaid back-taxes, about infringements of natural-resource extraction licence agreements and about environmental infringements, usually. These pressures have been deployed in the most extreme way against Yukos but have also been used against, among others, the Shell-led Sakhalin-2 project, TNK-BP (at least partly over control of the Kovykta gas-field), the VSMPO-Avisma titanium company and the Russneft oil company.

Third, it does not appear that a pre-planned, coherent economic strategy was involved. Senior policymakers in the ministries of finance and economic development, far from devising and supporting the shift to statism, have from time to time criticised it. The time-line of developments, and anomalies such as the failure to implement the planned merger of Gazprom and Rosneft, suggest a serendipitous process, perhaps originating in a desire to suppress a rich political critic *(Khodorkovskii)* and evolving into a series of state acquisitions: what might be termed learning by grabbing. Corruption has tended to increase during this period (Anderson and Gray 2006). The common Russian view that it is all about asset-grabbing is not refutable, even though it may not be the whole story.

Fourth, it is not clear that there is a definite strategy of continually increasing state control, but there does appear to be an element of nativism – of suspicion of foreign ownership – and a concern that the Russian business elite should be – if not necessarily holders of public office chairing state-controlled companies – at any rate demonstrably loyal to the Russian state.

By limiting competition (and finance and technology transfer) from foreign firms and competition from non-crony entrepreneurs and by weakening the rule of law, which was not strong to begin with, these policies look almost designed to do the opposite of what the Russian leadership undoubtedly wants: to make Russia a diversified, modern economy.

The distance that has to be travelled, as well as the way of getting there, looks to be misjudged by Russian officials. In 2007, on preliminary figures, Russia accounted for 0.3 percent of international patent filings (http://www.wipo.int/pressroom/en/articles/2008/article_0006.html, accessed 15 May 2008). That compares with 3.5 percent for China, 1.9 percent for Italy, and 1.3 percent for Finland. Despite having a relatively large R&D workforce for a middle-income

[3] To be fair, Ollus and Barisitz (2007) claim only that their evidence is suggestive, not conclusive.

country, Russia has a science base that is strikingly unproductive on most indicators. Yet in the MERT plan this base is to grow very rapidly to a point where R&D spending is higher relative to GDP than it currently is in highly developed countries.

This, combined with the structure of state holding companies described earlier, suggests there is a strong possibility of a distorted and wasteful state diversification programme that may well fall short of its objectives.

To be fair, one should also note that there are some indications of flexibility within this top-down strategy. The approach to foreign participation could well be more pragmatic than at present looks likely. Exceptions to the restrictions on foreign participation in "strategic" industries and natural-resource developments might prove to be made quite readily. Within the state-led programmes there can be room for *ad hoc* foreign involvement. The aerospace strategy, for example, sets involvement in international projects with Boeing and other leading producers as a target, for learning purposes, and indeed VSMPO-Avisma, the titanium producer that now comes under Rostekhnologii, duly has a 50-50 joint venture with Boeing (Hanson 2007).

The overall approach, nonetheless, is not promising.

Conclusions

State-led, oil-fuelled development is problematic for Russia, as it would be in any country. It looks as though, nonetheless, official Russian policy has been seduced by nine years of strong economic growth into adopting this approach. Apart from anything else, it fits well with the political leadership's evident fear of anything resembling pluralism and political competition.

The approach, however, is not guaranteed to last indefinitely. Most Russia-watchers, it is true, do not at the time of writing expect significant policy shifts to result from the Putin-Medvedev succession. But the novel new leadership arrangement may open the way for more open divisions within the elite to emerge – and perhaps introduce some competition into policy-making. There is a business constituency that is unhappy with the present policy line. In an early-2008 survey of business opinion, the question was asked: "What government activity does Russia need urgently?" Respondents could choose any two out of seven answers. More than 60 percent chose "Formation of legal environment for business activity," the most popular answer. Only about 20 percent chose "Financial support of selective priority enterprises and industries", and less than 20 percent chose "Direct regulation of the most important economic sectors" (All-Russian Center for the Study of Public Opinion, as cited in Troika Dialog 2008, 14).

At the same time, there is a substantial part of the Russian economy that is beneath the Kremlin's radar: most services and part of manufacturing. The state-led, "Putinist" system in general allows for much more flexibility than the old Soviet system did. If the economy runs into difficulties, for whatever reason, a leadership and a policy approach that are currently "legitimised" by rising prosperity may face challenges.

References

Anderson, J. H. and C. W. Gray (2006), *Anti-corruption in Transition 3: Who is Succeeding … and Why?* Washington, DC: The World Bank.

Gaidar, E. (2007), *Collapse of an Empire. Lessons for Modern Russia,* Washington, DC: The Brookings Institution.

Hanson, P. (2007), "The Russian Economic Puzzle: Going Forwards, Backwards or Sideways?", *International Affairs* 83, 869–889.

Mau, V. (2008), "Ekonomicheskaya politika 2007: uspekhi i riski", *Voprosy ekonomiki* 2, 1–26.

Milov, V. (2008), *Itogi 2007 goda dlya energetiki Rossii,* http://www.energypolicy.ru/files/Milov%20Feb-2008.ppt#371 (accessed 17 March 2008).

Milov interview (2008), "Temnaya energiya", *Vedomosti*, 17 March 2008.

Minpromenergo (2007), *Kontseptsiya energeticheskoi strategii Rossii na period do 2030 g.(proekt),* Minpromenergo, Moscow.

Ollus, S.-E. (2007), "Natural Resources – A Blessing or a Curse?", in: Lainela, S. et al., *New Conditions for Growth in Russia, BOFIT Online* 7, Helsinki: Bank of Finland.

Ollus, S.-E. and S. Barisitz (2007), "The Russian Non-fuel Sector: Signs of Dutch Disease? Evidence from EU-25 Import Competition", *BOFIT Online* 2, Helsinki: Bank of Finland.

Sachs, J. D. and A. Warner (2001), "The Curse of Natural Resources", *European Economic Review* 45, 827–838.

Sterkin, F. (2008), "Nalogovyi otdykh", *Vedomosti*, 15 May 2008.

Sutela, P. (2008), "Economic Growth Remains Surprisingly High", *Russian Analytical Digest* 38, 2–6.

Troika Dialog (2008), *Russian Economic Monthly*, February.

Economic Policy in the Presence of Globalisation: Report on Hans-Werner Sinn's 60th Birthday Conference

Heidemarie C. Sherman*

"Economic Policy in the Presence of Globalisation" was the title of a conference held on April 25, 2008 in Munich to honour Professor Hans-Werner Sinn, President of the Ifo Institute, on his 60th birthday. The programme, organized by Professors Monika Schnitzer, University of Munich and Assaf Razin, Tel Aviv University, encompassed the Welfare State, Tax Competition, European Integration, Climate Change, and Skills and Schools and assembled speakers and discussants of great distinction. Every speaker, many guests and representatives of the State of Bavaria and the University of Munich congratulated Hans-Werner Sinn on his birthday and commended him on his many contributions to economic theory and policy.

Hans-Werner Sinn, Monika Schnitzer and Assaf Razin

Panel 1: Can the Welfare State Survive?

Alan J. Auerbach

In his introductory presentation *Alan J. Auerbach*, University of California, Berkeley, started out with the state of play, noting that while it is not clear how to define the "welfare state", most governments provide substantial public spending on such welfare items as health, public pensions, unemployment compensation, and poverty alleviation. According to the OECD, social spending as a percentage of GDP is highest in Germany and France, at close to 30 percent. Among the challenges we face, he stressed the demographic change, i.e. low birthrates and greater longevity, with rapidly rising old-age dependency ratios, fastest in Italy and Germany. The change in population structure also implies changing public spending patterns. He showed projections of public pensions and public health care spending as a share of GDP. The latter has always been higher for the United States, where it is estimated to rise to 50 percent of GDP by 2082. He pointed out that there may be offsetting changes: education spending is predicted to decline as a share of GDP, given the older population; unemployment compensation is predicted to decline as well, with a larger fraction of the population no longer in the work force. But for the EU15 the increases in pension and health spending (about 4 percent of GDP from 2004 to 2050) will greatly exceed these potential gains which are expected to be less than 1 percent. In sum, between now and 2050, major European countries need about 3 percent of GDP to maintain their social welfare systems. Unfortunately there are some serious complicating factors. He mentioned four:

- *Progressivity* – Advanced economies rely on high-income individuals and capital for a significant share of government revenues and, as winners from globalization, these are potential sources of additional revenues. However, increased integra-

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tion and mobility make these factors more difficult to tax without increased coordination.
- *Productivity* – The ability to fund the welfare state depends in part on economic growth. Unfortunately recent productivity growth in Europe has been disappointing; the gap to US total factor productivity has widened.
- *Perceptions* – Our methods of fiscal accounting treat predictable problems as residing in the future. Furthermore, standard measures of government debt and deficits ignore implicit liabilities and hence mask the need for action. Generational imbalances are especially high in Japan, Italy, Germany and France.
- *Politics* – With old-age dependency ratios approaching 50 percent, the median voter will be increasingly hard to convince to reduce spending on the elderly.

What are possible solutions? Immigration is not the answer, as the young get old and the poor are net recipients of transfers. The net fiscal impact is unclear. Can labor market institutions of Continental Europe help explain higher unemployment rates and lower productivity growth? The general view is that more flexibility is needed to allow absorption and reallocation of workers. But how best to do so while providing some form of social insurance for workers? Some have suggested that high European tax rates have slowed employment growth. Although the extent to which is controversial, high marginal tax rates certainly make raising further revenue more difficult. Tax rates can be reduced only by shrinking government, making tax system less progressive, and shifting the tax base to activities that are less responsive to taxation. Finally there is pension reform. Although there are many factors at work to explain the low labor force participation of aging workers in Europe, there is considerable evidence that pension system incentives play a role.

Can the welfare state survive? Yes, but not in its current form. Many types of reform are necessary: pension reform, labor market reform, tax reform, and so on. But the clock is ticking, as problems and the age of the median voter are growing.

Discussion

Sir Tony Atkinson, Oxford University, took issue with the question posed. Can THE welfare state survive? What kind of a welfare state are we talking about? First, countries differ and so do their definitions of a welfare state. Second, the welfare state is not fixed, but in evolution. For example, the United Kingdom went from social assistance to social insurance, which has since been scaled back to means-tested. Third, how do we survive if the welfare state does not? In the United Kingdom, state welfare payments are much lower than on the European Continent. Therefore, there is more reliance on private provision for old-age pensions and health insurance. Finally he asked about the functions of the welfare state. What should be its scale? What is the best mechanism, the best balance between private and public provision?

Robin Boadway, Queens University Canada, referred to Sinn's notion of the welfare state as the patient and the economist as the doctor. Thus, the examination of the unwell welfare state found the following symptoms: widening inequality, unemployment of the low skilled, malfunctioning labour markets, competitive pressures, high levels of public indebtedness, adverse demographic trends, escalating health and disability costs. The ailments are country-specific, for example: (1) low-skilled unemployment, labour market rigidity and generous transfers (EU), (2) persons below the poverty line (various countries), (3) unfunded government liabilities (Japan, EU and US), (4) demographic pressures (everywhere), (5) health care coverage (US), and (6) strains on solidarity, especially for migrants (EU and US). Here are his prescriptions, first the easier ones: better work incentives, lower marginal tax rates, participation incentives like earnings subsidy, workfare, better targeting of policies like improved tagging of needy groups, monitoring for voluntary unemployment and the need to ensure that the needy get higher transfers relative to the less needy. More difficult to apply are the following prescriptions: fix deteriorating generational accounts, knowing that intergenerational redistribution is difficult, and deal with demographics (the role of immigration, incentives for fertility, later retirement). Boadway concluded by pointing to the intellectual challenge for public economics. Are political outcomes deterministic, as political economy models suppose? Or is there room for political free will? Can we follow Hans-Werner Sinn's optimism that policy makers are open to persuasion? He finished on the note that optimism must extend to societal consensus for solidarity and the welfare state in the face of the ideological conflict between self-reliance and rewards of hard work vs. luck and social insurance.

Panel 2: Tax Competition

Peter Birch Sørensen, University of Copenhagen, first presented the mainstream view that is held by many in European organizations: (1) if competition in the private marketplace is good, fiscal competition between governments must be good too; (2) fiscal competition to attract mobile factors and activities keeps governments on their toes and helps to weed out public sector inefficiencies; and (3) Europe must embrace tax competition as an integral part of the Lisbon agenda. He then presented Sinn's "selection principle" as an alternative view: if governments step in where markets fail, reintroducing markets through the backdoor of systems competition will again result in market failure. According to Sinn, the trouble with tax competition under conditions of mobile capital is that there is no efficiency problem, but a *distributional* problem, since labour is subsidising capital. Harmonising the capital tax at the supranational level would not be a satisfactory solution, because national governments would then compete to attract capital by offering excessive levels of infrastructure. Sinn's solution is to impose a self-financing constraint requiring national governments to levy a capital tax sufficient to cover the cost of infrastructure provision. The outcome would be the same (efficient) allocation of resources but no redistribution from labour to capital.

Sørensen went on to criticise the Leviathan literature and presented a model on political equilibrium with tax competition that he developed together with Wolfgang Eggert. It is a probabilistic voting model where politicians create rents to public sector employees as part of a political strategy to maximise the expected number of votes. He found that tax competition has the potential to wipe out all rents, but at the same time it will cause an underprovision of public goods. Tax competition is welfare-improving up to a point, but excessive tax base mobility reduces welfare. Hence there is an optimal intensity of tax competition. Starting from a tax competition equilibrium where all rents have been destroyed, some amount of tax coordination will always increase social welfare. It may even be welfare-improving to carry tax coordination beyond the point where rents to public sector workers start to emerge.

Peter Birch Sørensen

Discussion

Michael Keen, International Monetary Fund, argued that reflection on the tax competition literature helps us to think about models, ideas and instruments like tax holidays, free-trade zones, and European R&D subsidies. The IMF is campaigning against these special industry and related incentives. Since capital mobility is different in different countries, the standard treatment advocated by the Institute of International Finance (IIF) may not be correct. Because of asymmetries, there are always winners and losers. Some groups of countries may be coordinated, however, e.g. regional trading blocks may coordinate among themselves. Keen then addressed some of Sinn's papers on direct vs. indirect taxes and presented recent thinking on the issue at the IMF.

John Wilson, Michigan State University, noted that many models assume that markets are efficient and that the only source of inefficiencies is tax competition itself. This stacks the results against tax competition. He agreed with Sinn's selection principle and his warning against unfettered systems competition. But he wanted to introduce some additional considerations and some qualifications. To play the devil's advocate, he referred to the theory of the second-best, which says that if there is market failure, then competition among governments might be welfare-improving if it addresses (at least partially) the initial market failure. First he picked an example from the new geography literature, i.e. monopolistic competition with trade costs. Without taxes, because of home-market effects, the larger of two countries has more than the proportionate number of mobile firms, the number being inefficiently large. If you allow countries to compete by giving subsidies to firms, then for some parameter values tax competition improves welfare. The larger country will subsidize capital at lower rates than the small country, thus reducing the number of firms locating there. Second, he stressed that tax competition may be welfare improving if the failure is not private but caused by governments. His example was presented by Eckhard Janeba

addressing strategic trade policy. Countries have an incentive to compete in export subsidies, but this competition is wasteful. If you introduce mobility of firms and allow countries to compete for firms, this may eliminate these wasteful subisidies as governments do not want to attract firms if they have to subsidize their output. Hence governments will "overcut" each others' output subsidies, until subsidies are eliminated. Tax competition for firms essentially changes the incentives facing governments. Third, tax competition may be a cure for tax exporting. Governments have the incentive to tax heavily income earned by foreigners and tax competition can offset these incentives. In other words, tax competition can be welfare-improving in economies with lots of foreign ownership. Fourth he mentioned the literature on tax competition as a solution to commitment problems. Governments possess incentives to raise taxes on firms that have already sunk their investments, which, in turn, discourages investment. If firms can move their taxable income between regions after investments have been made, then governments may compete to bring taxes down to levels where initial investments become profitable. Fifth, tax competition may tame "Leviathan" governments. The total size of government would be excessive in the absence of this competition, since government officials benefit from increasing the size of the public sector. Tax competition is beneficial because it reduces this excessive size. He concluded by saying that tax competition can be beneficial – if we start with an economy that is subject to distortions, either in the private sector or generated by the public sector. But, if tax competition is bad, the cure may be worse than the disease.

Sir James Mirrlees, University of Cambridge, stressed that Sinn's selection principle is an important contribution. Sinn tends to be inclined to the benevolent government view. But there are other features of government policy like the CAP. He noted that what one country does, does affect the other country. They may then discuss coordination. But it is difficult to see how they would do that. Since capital is highly mobile, it is better to have equal tax rates for capital but not for labour. Sinn has stated that it is important to have labour mobility in the EU, and that it is desirable to have labour move from low-wage to high-wage countries. Theoretically, one should maximize the sum of consumption equivalents. But what is the right welfare function for each country? How should foreigners' welfare count? What is a plausible welfare function for a group of nations? Should we use a constraint of no transfers between nations? Or fixed transfers?

Luncheon Speech

Kai A. Konrad, Social Science Research Center, Berlin, emphasized the two distinct roles of Hans-Werner Sinn. On the one hand, Sinn is known as an academic, who has had a major influence on the scientific development in a number of fields. On the other hand, Sinn is a key player in German economic policy. He is vigorously fighting for a welfare state that is sustainable.

From the times he became Hans-Werner's Ph.D. student, Konrad has known that Sinn does have deep moral sentiments for redistribution. And he stressed that Sinn has contributed to giving the welfare state a normative underpinning within the framework of mainstream welfare economics. Konrad mentioned that in Munich he was exposed to a whole new world of ideas. Three of the major ideas he was exposed to by Sinn are closely related, namely: (1) the redistribution paradox, (2) why market insurance cannot fully replace governmental redistribution, and (3) what globalization does to this.

Concerning the redistribution paradox, the central idea is that people are willing and able to take risks because there is a welfare state that provides some kind of insurance against the consequences of failure. Sinn showed that redistribution in a welfare state may induce both, income growth and more risk taking. So much more, that the distribution of net incomes after redistribution has a higher mean, and is even more uneven than it is in the absence of the safety net of a welfare state. A further implication is that risk taking acts as an engine of growth. And this turned out to be not only a theoretical possibility. Edward Bird, for instance, found (in 2001) that "all else equal, in-

Kai A. Konrad

come risk seems to be higher in countries with larger shares of social spending in GDP". And Julie Cullen and Roger Gordon confirmed more recently: "overall we forecast that a uniform cut in personal tax rates by five percentage points leads to a 40 percent fall in entrepreneurial risk taking". The redistribution paradox establishes the first central component of this theory: the welfare state can boost income, but more welfare may cause a more uneven income distribution.

The second idea was implicitly criticised by some people in the mid-eighties who argued that if there is a complete private market for risk, the government cannot improve upon it. However, Sinn countered this argument with a simple but striking observation: insurance markets become available too late in life. In fact, even if the parents could sign the contracts on behalf of their kids this would not help. Some children are born to become kings in the near or distant future, some are born with special talents that are highly regarded in our society, and some are born with clever and caring parents. But others are born with physical or mental handicaps, or with incompetent, inexperienced parents, or with parents who simply do not care. This, he thought, was a good foundation for the welfare state.

Here is where the third issue comes into the picture, and which brought Konrad to the main topic of the conference: globalization. Globalization has deep implications for the welfares state. First, countries have *more need* for a governmental insurance policy and second, countries have *less scope* for raising revenues that can be redistributed. Sinn, he said, concludes that globalization and the competition among nation states reintroduces the market failures which the government was supposed to cure. This is his "selection principle". Essentially, it may make redistribution unfeasible. But this has two implications. Without systems competition, the nation state could tax the super-successful and give to those who failed. This would make super-success feasible and unleash growth. Without a behavioural change, that is, with unchanged risk taking, the income distribution would widen dramatically. However, individuals would stop taking these high risks and would rather revert to safe, but low-value alternatives.

Konrad continued that, like in his work on German unification, labour market policy, capital income taxation, environmental policy etc., there is an extremely close link between Sinn's own research insights and the policy proposals which he pushes forward in the public debate. As regards social policy or the welfare state, Sinn can be seen as continuing the line of economists who shaped social policy in Germany in the past. Sinn, he stressed, fights for the welfare state, not against it, as is often claimed in the media.

Panel 3: European Integration

According to *Otmar Issing*, University of Frankfurt, economic integration in Europe is a success story without parallel anywhere in the world. Nowhere has this been more apparent than in the attraction exerted first by the European Economic Community (EEC) and then the EU, with candidates queuing up, then as now, to gain admission. The prosperity of European countries is due in large measure to the dismantling of trade barriers and the opening-up of markets. Issing stressed that the shared success of economic integration has yielded benefits to Europe that go beyond the economy. It cannot be denied that the Community has also helped to secure peace. The preparations for EMU in the 1990s gave strong momentum to integration in Western Europe, particularly in the areas that are subject to the Maastricht criteria and the Stability and Growth Pact. These criteria relate to price stability, the governments' fiscal position, participation in the exchange rate mechanism and convergence of long-term interest rates.

Issing continued that after a painful process of transition from central planning and political dictatorship to democracy and a market system, preparation for and access to EU has extended European integration eastwards, creating the largest economic area in the world. This enlargement of "Europe" has the potential of enormous economic and political advantages for old and new member states. But, there are also risks for conflicts and problems of all kinds, which cannot be addressed here.

Otmar Issing

Issing then turned to the topic of European Monetary Un-

ion. The introduction of a single currency, the euro, and the establishment of a supranational central bank, the ECB, can be considered the final step of economic integration. And he emphasised that the euro is probably the most successful "innovation" in the history of currencies. Although this result is in stark contrast to many sceptical voices before its start, after more than nine years it is taken more or less as self-evident that the euro had to become a success.

Finally, he pointed out that EMU is still work in progress, an experiment which is exposed to risks. He stressed that the risks are not coming from the ECB and its monetary policy, but rather stem from the failure of the body politic to deliver on its responsibilities and promises. As a result, the ability of economies to adapt quickly is still limited. Substantial progress has been made, but a lot still needs to be done, including greater flexibility of markets and sound fiscal policies. As sovereignty over fiscal policies in principle remains at the national level, the EU member countries decided to introduce fiscal rules to help to prevent imprudent fiscal policies and their adverse effects on inflation and expectations. These rules are enshrined in the Maastricht Treaty and operationalised in the Stability and Growth Pact. In his opinion, the Lisbon Agenda, the "pro-employment and growth blueprint" for Europe, sets the right priorities. However, it must be implemented more forcefully.

But, what about the unfinished house of European integration, what about Political Union? Issing has no doubts that with the introduction of the single currency and the establishment of the ECB as a supranational institution, the process of European integration has transgressed the border of economic integration. The ECB is an element of European statehood but it does not make a state. He does not see Political Union around the corner. So, the question is: "can monetary union survive without political union?" Issing's short answer was an unequivocal yes! He would even claim that all attempts of stronger political integration in the direction of complementing monetary union by a kind of "European Social Union" are undermining the success of the single monetary policy. "Harmonising" or "Europeanising" social rights implying rigid labour market rules would go in the opposite direction of the need for greater flexibility of markets. Such a social union would also be associated with higher intra-community transfers and a rising burden of taxes and social contributions.

Issing ended his remarks by noting that the public debate on a constitution for Europe concentrates on issues which are outside the sphere of monetary union. A common foreign policy or a European army have nothing to do with EMU. And he was rather sceptical regarding the euro as a kind of pacemaker for such political projects by fostering a kind of European identification.

Discussion

Paul de Grauwe, University of Leuven, reiterated that the EU with its common currency has avoided exchange crises, has become a symbol of European integration and price stability. But he noted that challenges remain. Economic divergences have not been reduced, there is a boom in Spain and a recession in Italy, and greater wage and price stability in Germany than elsewhere. Why is this so? Greater integration also means greater specialisation. The European Central Bank is responsible for a common monetary policy, but taxation and wage policy remain in the hands of national governments. What can be done? He mentioned the following three areas:

- With monetary and exchange rate policies no longer available to national governments, greater flexibility of markets is needed.
- Fiscal discipline is essential, but in his view the Stability and Growth Pact was ill conceived. What is needed instead is a control system where the actors are truly held responsible.
- Some form of political union is needed to maintain a stable economic and monetary union and solidarity with the other countries.

Rick van der Ploeg, Oxford University, asked why so many people rejected the EU constitution. Obviously the European project is not seen as positive. Although EMU is a success, many people are against it. And although integration is a success, many people are critical of the EU and its institutions. And in foreign policy the EU is not present at all. European integration has obvious benefits, such as peace, economic convergence, and low and stable inflation. Why the criticism? Regarding EMU, in his opinion the euro is strong because the dollar is weak. Further, the policies of the ECB are too much geared to price stability. He also claimed that the Stability and Growth Pact was sold to prevent a weak euro and to get government deficits down, but

that confidence has been lacking. People love to blame Europe, which is seen as a neo-liberal project (flexibility, Lisbon Agenda).

Panel 4: Global Climate Change

Remarks on the Stern Review

Eytan Sheshinski, The Hebrew University of Jerusalem, commented on the Stern Review "Optimal Policy to Mitigate Greenhouse Effects". He noted that the main criticism of the Stern Review was on the choice of various parameters. Based on these parameters and people's attitudes, Stern's policy recommendations are very drastic. He considers the spending of 1 percent of global GDP on mitigating the greenhouse effects as justified. Sheshinski first sketched the background of the greenhouse effects: (1) current level of CO_2 are 380 ppm compared to 280 ppm before the industrial revolution, (2) the level could reach 550 ppm by 2035, (3) this level would imply a two degrees centigrade rise in temperature, and (4) "business as usual" would treble the level of CO_2 by the end of the century, with a 50 percent chance of exceeding a rise of five degrees centigrade.

The implications on agriculture, low-income countries, reversal of the Gulf stream and other catastrophes are well known. The question is: "are the benefits from reducing climate change worth the costs?" He made two comments: (1) emissions are practically irreversible, and (2) because the scale of the problem is global, policies must be global, too. Cost-benefit analysis must allow for uncertainty and risk aversion and for a comparison of future outcomes with the present. The Ramsey-type solution is:

Eytan Sheshinski and Hans-Werner Sinn

$$r = \rho + g\eta$$

for each $t \geq 0$

where r = rate of return; ρ = time preference; g = rate of growth of consumption and η = risk aversion. The Stern Review chose: $\rho = .001$ and $\eta = 1$ *(logarithmic utility)*; $g = .013$. Many criticized the low levels of ρ and η.

The Review presents (for the first time) a range of probabilities for market and non-market damages (health and ecological effects). In the "High-climate scenario", i.e. if nothing is done, then because of CO_2 alone, the losses of global GDP by the year 2200 have an expected value of 13.8 percent (of what it would be otherwise). With $\eta = 2$, the global GDP loss would amount to 20 percent. At any time preference of $\rho \leq 8.5$ percent, it would be worth while to invest 1 percent of global GDP on greenhouse mitigating effects.

The Green Paradox

Hans-Werner Sinn, University of Munich, agreed with the size of the problem as presented by the Stern Review, i.e. a 5 percent increase in temperature by 2100. It will be even more if every fossil fuel is taken out of the ground and burnt. He also posed the question of what to do to mitigate the amount of greenhouse gases. The Stern Review is in line with the general answer and policy prescription i.e. to reduce the *demand* for fossil fuels by switching to bio-fuels, pellets, wind power, solar panels, hybrid cars, nuclear power. But a fall in demand by some countries, leading to lower prices of fossil fuels, will just increase the demand by other countries. He stressed that the oil sheiks will not care about our demand decisions. This is a trivial but important point. Obviously it cannot be the solution. We must look at the *supply* side!

A lower price for fossil fuels will be translated into a fall in extraction only to the extent that market supply shrinks after a price decline. For this reason, Sinn stressed, proper policies to fight global warming require an analysis of the *supply* side. The supply reaction is based on intertemporal supply decisions of the resource owners. It is not only current prices but also expected future prices that influence the rate of extraction of non-renewable resources. The supply reactions that do occur will depend on the whole future time path of prices. The decision

problem of the resource owners can be characterised as one where they choose between (1) extracting the resource now and investing the proceeds in financial markets to earn a future financial return, and (2) keeping the stock in the ground and benefiting from future price rises as the resources become scarcer.

If we announce a green policy only for ten years, i.e. today's demand restrictions are not expected to continue in the future, then suppliers will defer extraction. If we announce a green policy that will drastically reduce demand in 30 years' time, suppliers will have an incentive to extract more now. As global warming increases, the calls for measures to address climate change will likely grow louder, resulting in increasingly stricter demand-reduction policies in the future. As resource owners anticipate such developments, they will intensify extraction today. This is what Sinn calls the *green paradox*.

So everything depends on the time path of the green policy. Sinn suggests a strategy that is price neutral. We know that because of increasing scarcity the price of fossil fuels will rise over time (the so-called Hotelling rule). So if we depress the price, it will be relative to what it would have been and not relative to what it is today. According to Sinn, if there are no extraction costs, the price-neutral strategy is a proportional decline of prices that could be achieved with a constant *ad valorem* tax. Such a tax is a cash-flow tax which is intertemporally neutral. With extraction costs, however, the neutrality condition becomes more complicated. The discounted value of the absolute price wedge must be constant. In terms of *ad valorem* taxes, the rate of increase of the *ad valorem* tax rate (or the proportional decline of prices) must be greater than the rate of interest times the cost share in revenue. If the tax rate increases faster, i.e. if the policy becomes greener over time, extraction will be sped up and global warming will accelerate.

Unfortunately, in reality, the support for green policies will grow, which means the oil countries will extract more and global warming will increase. What can we do? We could impose quantitative constraints. We could introduce a "Super-Kyoto" that issues rationing coupons for energy. In that case we would need a worldwide coupon system for oil consumption. But that would amount to communism, only a central planning solution for the whole world would do. Alternatively we could pump the released CO_2 back into the ground. But there is not enough space, as 1 m^3 of coal taken out of the ground and burnt produces 5.6 m^3 of CO_2 and if there were space, people would not want to live close by because the CO_2 would be stored under pressure and if it escaped, everyone would die. Sinn could only shrug his shoulders and say: yes, economics is a dismal science.

Concluding Presentation: Skills, Schools, Synapses

James J. Heckman, University of Chicago, gave an interesting presentation on education. In particular, he asked: "why invest in disadvantaged children?" Even ignoring arguments of fairness and social justice, he noted the benefits for society at large like a reduction in crime and the promotion of integration of persons into society, improvement in the efficiency of schools, increase in the productivity of workers. On productivity enhancement grounds alone, the case for early intervention for disadvantaged children is strong, he stressed. Early childhood programs targeted at disadvantaged children promote economic efficiency and reduce poverty. For such programs there is no "equity-efficiency" trade-off.

The accident of birth is a major source of inequality in society. The early years exert a powerful influence over the rest of the life of a child. We are talking about the years 0 to 3 as well as the later preschool years 4 to 5. Children raised in disadvantaged environments are much less likely to succeed in schools and in economic and social life and are much less likely to be healthy adults. The good news for policy makers is that there is strong evidence that early environments can be enriched and that we can off-

Sir James Mirrlees, Hans-Werner Sinn and James J. Heckman

set, in part, the powerful consequences of the accident of birth.

According to Heckman, many major economic and social problems such as crime, teenage pregnancy, dropping out of high school and adverse health conditions can be traced to low levels of skill and ability in society. We need to recognize the multiplicity of abilities. Current public policy discussions focus on promoting and measuring cognitive ability through IQ and achievement tests. Cognitive abilities are important determinants of socioeconomic success. So are socio-emotional skills, physical and mental health, perseverance, attention, motivation, and self confidence. They contribute to performance in society at large and even help determine scores on the tests that are used to monitor cognitive achievement.

According to Heckman, ability gaps between the advantaged and disadvantaged open up early in the lives of children. Family environments of young children are major predictors of cognitive and socio-emotional abilities, as well as crime, health and obesity. If society intervenes early enough, it can raise cognitive and socio-emotional abilities and the health of disadvantaged children. These interventions are estimated to have high benefit-cost ratios and rates of return. And early interventions have much higher economic returns than later interventions such as reduced pupil-teacher ratios, active labour market programs, convict rehabilitation programs, adult literacy programs, tuition subsidies or expenditure on police.

He stressed that life cycle skill formation is dynamic in nature. Skill begets skill; motivation begets motivation. If a child is not motivated and stimulated to learn and engage early on in life, the more likely it is that when the child becomes an adult, it will fail in social and economic life. Gaps in the abilities that play such important roles in determining diverse adult labour market and health outcomes open up early across socio-economic groups. Schooling after the second grade plays only a minor role in alleviating these gaps. Measures of school quality (teacher/pupil ratios and teacher salaries) that receive so much attention in public forums play only a minor role in creating or eliminating the gaps after the first few years of schooling. Early intervention lowers the cost of later investment.

A Concept for a New Budget Rule for Germany

Elke Baumann, Elmar Dönnebrink and Christian Kastrop*

With Germany having finally overcome its long economic stagnation in 2006, its public finance has also become much more favourable, showing a fiscal surplus in 2007 for the first time since German reunification. Additionally, the debt ratio was reduced to 65 percent after having reached almost 68 percent in 2005. Nevertheless, neither the Federation *(Bund)* nor a large number of *Länder* (states) had managed to comply with the respective – and quite generous – limits of net borrowing laid down in the constitutions in the years before. The deficit had been in excess of the 3 percent deficit ceiling of the European Stability and Growth Pact (SGP) from 2002 for four years in a row. Annual interest payments have reached around 15 percent of the expenditures of the federal budget in recent years. Having such a high public indebtedness narrows the scope for manoeuvre of fiscal policy and poses a heavy burden to future generations, especially under the conditions of an ageing society and implicit debt.

As the current budget rule in the Federal Constitution has not been able to prevent the accumulation of debt – which increasingly confines the government's capacity to act – the political discussion has recently focused on the introduction of a new budget rule. The first "practical" task started in the Federal Ministry of Finance in late spring 2006. This work has led to a central goal of the "Stage 2" of the Federalism Reform in Germany, carried out by the Committee on the Modernisation of the Financial Relations between the Federation and the states. The central goal is to enact a more effective budget rule than the current one. Since then the Federal Ministry of Finance has been involved in the conceptual task aimed at developing a new budget rule, and presented – in the name of the federal government – a proposal for a new budget rule to the aforementioned Committee at the end of February 2008 (Kommission zur Modernisierung der Bund-Länder Finanzbeziehungen 2008). The proposal has been approved and its economic and political aspects have been tested against the competing models such as the net-investment model of the Council of Economic Experts (CEE). At present, there is a lively discussion both inside the parties of the Grand Coalition and in the states, since a new budget rule enjoys – besides the development of an early warning system in order to prevent a budgetary crisis – the highest priority on the agenda of the Committee.[1] A draft bill should be finalised by the end of 2008.

In this article we will firstly deal with the *status quo* of the existing budget rule and the resulting problems. In the next section the two main concepts of how a new budget rule can be designed are discussed, followed by our own proposal for a reform. The final section concludes.

Status quo and problems of the existing budget rule

The current budget rule was implemented at the end of 1960s – the heyday of Germany's Keynesian fiscal policy fine-tuning. According to Article 15 of the German Constitution net borrowing in the proposed budget is limited to the amount of (gross) public investment. Exceptions to this rule are only allowed in the case of an emerging "disturbance of the macroeconomic equilibrium". Art. 109 II of the German Constitution has another similarly imprecise obligation stating that the Federation and the states must take the macroeconomic equilibrium into consideration when approving their budgets.

The economic and general institutional framework has changed, however, since the implementation of the current budget rule, which makes the rule obso-

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[1] For an overview of competing proposals and their key characteristics, see Groneck and Plachta (2008).

lete in some aspects. Globalisation has reduced the power of the instrument that once was seen as a global controlling mechanism. Secular decline of potential growth rates accompanied by demographic changes has led to conflicts in the social security system regarding the intergenerational distribution of financial burden. Last but not least, besides the Federal Constitution (and the respective state constitutions) the guidelines introduced by the European Stability and Growth Pact (SGP) must now also be adhered to.

On the other hand, such changed general environments may also have contributed to the increase in public debt at the federal level. As the constitutions of many states have similar – in some cases even the same – rules as the Federation does, this may also be true on the state and municipality levels since 1970, particularly exacerbated in the years after German reunification when the public debt increased much more strongly than GDP.

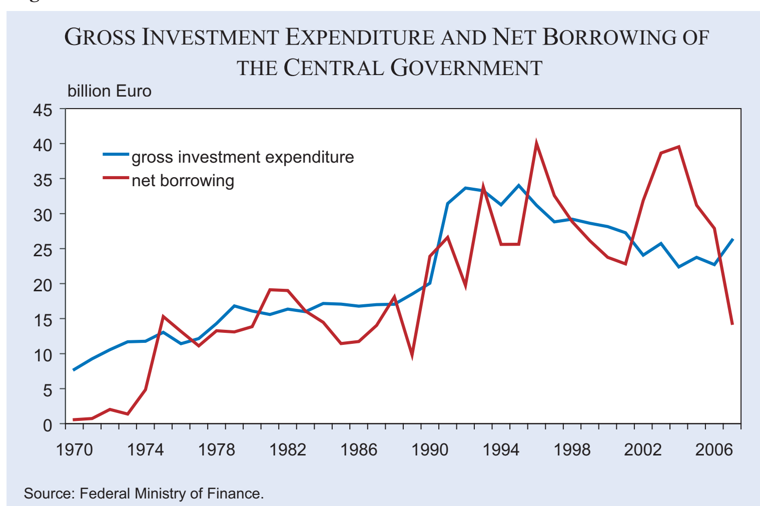
One of the major problems of the existing budget rule is that it reacts asymmetrically over the business cycle. In situations of a disturbance of the macroeconomic equilibrium, net borrowing is not limited at all. But there is no corresponding rule for the opposite case: there is no obligation to reduce net borrowing (or to create a surplus) if economy is in "good" shape with a positive output gap. For instance, in the past, public expenditures rose and revenues decreased in bad economic years, while there was no comparable (opposite) development recorded in those favourable periods.

Second, the exception clause, i.e. the disturbance of the macroeconomic equilibrium, is not clear enough and therefore it has always been difficult to decide, before applying this rule, whether the macroeconomic equilibrium is really disturbed or not. There have been two judgements by the Federal Constitutional Court regarding this matter: one in April 1989 about the budget in 1981 and the other in July 2007 on the budget in 2004. In 1989, for example, the Federal Constitutional Court did not make a precise definition of the exception but stated that the legislator had a scope for judgemental evaluation in this question. The only obligation was that the assessment of the situation had to be based on economic data and backed by statements of the legitimated, financial and economic advisory institutions (e.g. Financial Planning Council, Business Cycle Council, CEE and *Bundesbank*). In addition, the assessment had to be traceable and justified by the perceptions of economic theory and public economics. Ultimately, in case of a dispute, it is the Federal Constitutional Court itself that must examine and evaluate the question of whether the assessment of the legislator was traceable and justifiable.

In general such an exception rule also made it relatively easy to face political or economic pressure by increasing structural debt behind the veil of "macroeconomic equilibrium" and "intergenerational burden sharing". In recent decades, for example, this rule was repeatedly used to "finance" German unification, without fully recognising major negative (mid- to long-term) impacts of a growing debt on the economy. But also at the beginning of this century, this track has not been abandoned.

In the proposed budgets of the Federation from 2002 to 2004 and even that for 2006, net borrowing exceeded the limit defined by the investment expenditures, and this was also true for some states in recent years. In 2002 and 2003, net borrowing of the Federation exceeded investment expenditure only in the "supplementary" budget, while the excess took place already in the "original" budget for the year 2004. In all cases such an excess was officially justified by a disturbed macroeconomic equilibrium. The opposition parties at the time – CDU/CSU and FDP – reasoned that there was no disturbance of the macro-

Figure 1



Source: Federal Ministry of Finance.

economic equilibrium, and filed an action against the 2004 budget law at the Federal Constitutional Court. In 2005 the federal government, which did not have to prepare a supplementary budget, protected the net borrowing excess again in terms of a disturbed macroeconomic equilibrium, because it still had credit authorisations from former years that had not been utilised. Finally, in 2006 the government again justified the excess in the same manner, although there had already been some signals that the economy was recovering. But also in the years before 2002, the exception rule was used without having a clear-cut knowledge about whether the macroeconomic equilibrium was really disturbed or not. In almost half of the investigated period since 1970, net borrowing of the central government was higher than its gross investment (Figure 1). Moreover, a clear correlation between the budget rule (as a type of golden rule) and investment could not be observed.

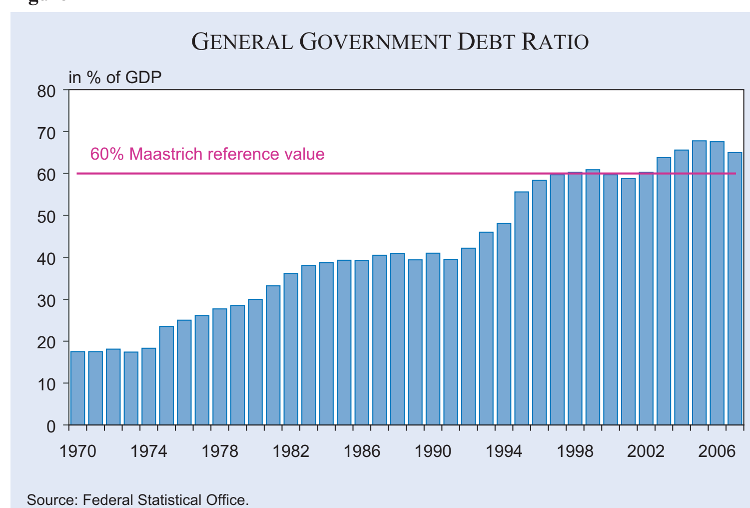
The marked increase in the general government's indebtedness from 17.5 percent relative to GDP in 1970 to 65.0 percent in 2007 could not be prevented (Figure 2). The increase above the Maastricht reference value of 60 percent of GDP was interrupted only by small and non-sustainable decreases in the years around 2002. Furthermore, the rapid growth of interest payments reduced the fiscal policy scope dramatically.

Besides, Article 115 of the German Constitution turned out to be incompatible with the SGP, although the deficit was below the 3 percent criterion in 2006 and therefore well in line with the rules prescribed in the SGP. Yet net borrowing still exceeded gross investment that year. Beyond this, the existing budget rule accompanied by rising public debt is not in line with the budgetary objective of long-term sustainability. Another problem is that the so-called "investment concept" relates to gross investment expenditure as the limiting factor. By neglecting depreciation of the public capital stock, the limit for net borrowing is therefore set too high, without any significant economic implication.

On July 9, 2007, the Federal Constitutional Court again dismissed action against a budget violating constitutional principles – this time for the year 2004. The Court acknowledged that the reasons and actions of the former federal government had been traceable and justifiable. But the Court also stressed that the existing budget rule was in need of reform, without mentioning any details about what a reformed rule should look like. In contrast to the decision made in 1989, the Court gave neither any further guidelines nor set any time scope required for the reform.

As a consequence of the growing public debt and the non-conformity with the SGP, the increased consciousness about the necessary consolidation that should (and could) not be postponed any more, as well as the judgment of the Federal Constitutional Court, a vivid discussion started in public about a reform of the existing budget rule. As already mentioned above, the formulation of a new budget rule was chosen as one of the prior goals of the Committee on the Modernisation of the Financial Relations between the Federation and the states, established by the Presidents of the *Bundestag* and the *Bundesrat* in March 2007. Given the economic and fiscal situation of Germany and the current majority in Parliament, chances for a binding decision for a reform – which requires a constitutional change – together with a fixed date of implementation are favourable. The current economic upswing has led to a cyclical improvement of the fiscal stance and consequently to compliance with the existing budget rules (German Constitution and SGP). This also appears to have led to a structural improvement of revenues in the medium term by substituting one-off measures (e.g. privatisation gains) with tax revenues. Such favourable conditions additionally provide broad acceptance of a new budget rule by the public.

Figure 2



Source: Federal Statistical Office.

Concepts of a new budget rule: Golden rule versus balanced budget in the medium term

Firstly some suggest that the chance for reforming the current budget rule could also be used to change the target orientation from a deficit level to an expenditure path (see Horn et al. 2008; Vesper 2008). Yet in the case of such a system transfer, there would be no enforcement mechanism that works in the direction of sustainable public finance. More precisely, the option with an expenditure path would not solve the problem of increasing deficits. Since there is no any correction mechanism for those policy measures that are not (or insufficiently) financed by revenues, it would not offer an adjustment mechanism to different revenue paths in the future, and it would certainly increase incentives to circumvent the expenditure path via "creative" measures on the revenue side, e.g. via tax expenditures or tax allowances.

If one keeps to the principle of a budget rule aiming at maintaining a certain deficit level, two different concepts basically exist. The idea of the golden rule of fiscal policy is to limit public net borrowing to the amount of *net* public investment. In contrast, the SGP approach aims at a balanced budget which mandates that net borrowing be (close to) zero in the medium term but permits the so-called automatic stabilisers in the short term (see below).

The idea behind the golden rule is classical and based on the following economic assumption: public investment is accompanied by an asset accumulation which is also of use for future generations. For this reason it is justified that the future generations also bear a share in the costs arising in the financing. The underlying rationale is that productive public investment raises potential output per capita in the future. While Germany follows a "modified" type of golden rule where gross public investment is the restraining factor, the United Kingdom, Australia and New Zealand apply a golden rule oriented to net public investment. Other countries like Belgium, the Netherlands and Sweden, which introduced the golden rule in the 1950s and 1960s, gave up the system in the course of time. Another difference between Germany and, for example, the United Kingdom is that, while the limit of the budget has to be observed every year in Germany, the rule in the United Kingdom has to be followed over the medium-term financial planning only. In order to ensure sustainable public finance, a so-called sustainable investment rule exists in the United Kingdom in addition to the rule stating that the public debt ratio must be kept below 40 percent of GDP.

Theoretically, a golden rule can be optimal for several reasons. It can be optimal (1) if – compared to a regime where public debt is prohibited – public investment is below the social optimum level, and (2) if there are – in the presence of political or institutional restrictions – incentives to cut productive public investment. Another argument often used for the golden rule is that intergenerational redistribution should favour today's generations and at the expense of future generations. Without really knowing what the social optimum level of public investment is, Figure 1 shows a clear downward trend of gross public investment expenditure since German reunification despite the existence of a golden rule. One of the reasons is that this type of public expenditure is the easiest to cut. Even worse, the reduction of public investment was accompanied by an increase of public debt, punishing future generations.

The golden rule is criticised not only because of this experience. One of the major problems associated with such a rule is the problem of how to define investment. In practice, it turns out to be technically difficult to determine the precise depreciation rate. In addition the determination could be subject to manipulation, as there is an incentive to underestimate these rates. In Germany, an additional problem emerges because government's investment grants for the private sector or transfers for other countries are also recorded as investments. In both cases, however, a (direct) net wealth increase does not take place at the government level. Moreover, some types of public expenditures are presently classified as "consumptive" but have investment characteristics, e.g. expenditures for R&D or education. A golden rule that fails to include these kinds of expenditures as investment would provide incentives to reduce them to a level below the socially optimal one.

Since education in Germany is a matter of the states, this question is not of much relevance for a budget rule on the Federation level. But counting all education expenditures as investment would widen the deficit limit for the states considerably. On the level of the Federation this would amount largely to the non-investitve transfers of funds to the states aimed at supporting research institutions of the so-called Blue List (Scientific Community Gottfried Wilhelm Leibniz, an association of German research insti-

tutes of different specialisations) as well as stimulating R&D activities of private firms within the public innovation promotion policy.

The difficulty arising with the inclusion of education expenditure is that in order to calculate net investment correctly, one has to be able to compute the depreciation of human capital. This is an extremely difficult task. The research that has attempted to tackle this problem suggests a rather high depreciation rate (see examples given in Sachverständigenrat 2007, 130). Together with the extremely low correlation with the outcome resulting from educational expenditures,[2] this fact suggests that inclusion of the education expenditure into the public investment concept and thereby increasing the tolerable level of net borrowing can occur only in a very restrictive manner. These and other difficulties led the Advisory Council to the Federal Ministry of Finance (1980) as well as the Federal Constitutional Court in its judgement about Article 115 of the German Constitution (1989) to decide against such an inclusion.

An imminent danger – which again creates a political incentive to spend for "good reasons" – involved with the question of the correct definition of the investment term is that it might open the floodgates to a discussion of including other non-investment public expenditures in the health sector, for childcare or for security reasons, as they could be interpreted as investment in the future and preconditions for economic growth. Another problem with the golden rule is that – though it follows the principle of intertemporal equivalence – it is accompanied by a growing sustainability gap in the face of demographic changes witnessed in many industrial countries including Germany. In this respect, a golden rule does not adhere to sustainability principles in an ageing society.

All these aspects that argue against a golden rule have to be seen together with the robust result of economic theory that holds that deficit financing of public expenditure – no matter whether this is used for consumption or investment – burdens future generations and leads to lower growth. This is true at least for the plausible case in the long run when the interest rate is greater than the secular shrinking of the potential growth rate. Desired redistribution effects to the detriment of future generations are then the only justification for public expenditures financed by the long-term debt. These effects, however, are counteracted in an ageing society by the burden that future generations have to bear in the face of the demographic change – especially in a social security system that is based solely on a pay-as-you-go principle.

Aside from the intergenerational problem, a golden rule neglects the productivity of private investment as a substitute to public investment. Though public investment may encourage private investment and increase its productivity, the opposite effect is possible as well, depending on the kind of investment and the existing capital stock. In this case the waiving of public investment, together with less debt and less future tax burden, may lead to more productive private investment. Finally, the analogy to the private sector concerning return on investment is limited. While the economic profitability of an investment project of a private enterprise has to show up at least in the long run in financial returns, public investment does not have to.

In the face of all these problems with the golden rule, there are a number of arguments in favour of a structurally balanced budget in order to guarantee sustainable public finance and to limit net borrowing. While a golden rule allows net borrowing at the amount of public investment, according to a structurally balanced budget rule net borrowing is allowed only for cyclical reasons (automatic stabilisers) and there must be additional saving efforts in the case of a cyclical upswing. The consequence is a reduction of public debt in relation to GDP. Even a budget rule that is less restrictive but still in accordance with the SGP – e.g. the "close to balance"-rule which prescribes for Germany a minimal structural deficit of 0.5 percent of GDP – would be much more advantageous than the current rule. Finally, the quality of public finance is also guaranteed in a structurally balanced budget rule. It may be even superior to the golden rule, as it does not have a bias towards "physical" capital formation. This rule would prescribe the legislator to shift the expenditures to those of "high quality types (education and R&D)" that are viable for the future, regardless of whether they are classified as investment or consumption expenditures. Here the new deficit regime meets or is even part of the "Quality of Public Finance" agenda, now being developed at the EU level and its members, including Germany.

[2] Empirical studies find no or at best a very weak relationship between the amounts invested for education and the outcome (see the zero or even negative correlations between the PISA results and education expenditure in Sachverständigenrat 2004 and Hanushek 2002).

Criteria and proposal for a new budget rule

Regardless of its design, a budget rule has to fulfil certain indispensable criteria. First, there should be an effective limit for (structural) net borrowing. Second, the rule should lead to stabilisation over the business cycle and guarantee sustainability of public finance in the long run. Moreover, the budget rule must be compatible with the SGP. Additionally, it must have an enforcement mechanism requiring not only *ex ante* control, i.e. with the establishment of the budget, but also after execution of the budget. Finally, the viability of the rule has to be guaranteed by an exception clause in case of emergencies. These essential criteria must be embedded in a budget rule that is technically and legally feasible. As a special problem of Germany's federalism, federal aspects also have to be considered.

As shown in the previous section, there are a number of arguments against a budget rule that relies on the golden rule concept. This holds especially for the case of Germany where a necessary new definition of the investment concept involves serious problems. This is one of the main differences to the proposal of the German Council of Economic Experts (CEE) published in its Spring 2007 expertise commissioned by the Federal Minister of Economics and Technology. Entitled "Limiting Government Debt Effectively" (Sachverständigenrat 2007) it defends the (net) investment concept. A prominent supporter of deviating from the golden rule is the Advisory Council to the Federal Ministry of Finance, which advocated its position in a letter to the Federal Minister of Finance in July 2007 (Wissenschaftlicher Beirat beim Bundesministerium der Finanzen 2007). Besides relying on the investment concept, the CEE also introduced in its proposal a component for cyclical adjustment close to the so-called debt brake in Switzerland, which was proposed in 2000 (Schweizerischer Bundesrat 2000) and realised in 2002.

In our view, a new budget rule should be compatible with the "close to balance or in surplus" approach of the SGP, which also shows some similarities with the Swiss debt brake. The following principles must be followed. First and as the main principle, the budget must be balanced in general in terms of revenues and expenditures without net borrowing. Second, the new rule should play a stabilising role for budget policy over the business cycle. Allowing automatic stabilisers to work assures that the budget rule reacts symmetrically over the business cycle. Therefore, in case of divergences from potential output, cyclical adjustments in net borrowing should be allowed. A cyclically induced increase in net borrowing (or a lower surplus) should be possible with a negative output gap, while net borrowing ought to be reduced by cyclically caused excess revenues or reduced expenditures (or a fiscal surplus has to be realised) in a situation with a positive output gap. This symmetry over the business cycle provides additional room for net borrowing in bad times, which leads to a systematic increase in public debt in the long run. The symmetrical consideration of the business cycle was also demanded by the Federal Constitutional Court: "it is necessary to develop mechanisms that guarantee the necessary balance of the budget over several fiscal years. The choice and institutionalisation of rules that counteract conveniently the incentive to postpone balancing burdens on future legislations is the task of the legislator, who is able to change the Constitution" (Bundesverfassungsgericht 2007).

Cyclical adjustment has already been used in the application of the SGP, which aims at controlling and evaluating (1) the medium-term objectives (MTO) of the budget, (2) the adjustment steps leading to the MTO, and (3) the recommendations of the European Council to the Member States made for correcting excessive deficits and the required time span.

While in the concept of the CEE, as in the Swiss model, the cyclical component is calculated with the Hodrick-Prescott filter, we propose following the SGP and applying the production function approach in order to estimate potential output. This is the reference method agreed by the European Council on 12 July 2002.[3] However, as potential output is an unobservable variable, there is neither a single correct estimation approach nor a clear result. The Hodrick-Prescott-filter method is a purely statistical one, while the production function approach is based more strongly on economic theory. In general these and other computation methods lead to similar results, although the output gaps may differ even in sign in certain periods. All methods also have the problem that values for former periods are usually revised, which may eventually change even the sign (+ or –) of the output gap.

Cyclical adjustment is applied as follows. The cyclical component of the fiscal balance is calculated as the

[3] Cyclical adjustment is stipulated by law in Council Regulation (EC) No 1467/97 (OJ 1467/97, OJ 1056/2005) on speeding up and clarifying the implementation of the excessive deficit procedure.

product of the budgetary sensitivity and the output gap. Budgetary sensitivities, i.e. the elasticities of the budget deficit on a change in the output gap, have been derived for the European Commission by the OECD in a sophisticated approach (André and Girouard 2005). Cyclical components of the budget according to the SGP are tax revenues, social security contributions and labour market expenditures. The result for Germany has been evaluated also in a separate work by the Ifo Institute (Büttner et al. 2005), which confirmed a general government budgetary sensitivity for Germany of 0.5 as obtained by the OECD. This empirical analysis also showed that about 50 percent of the cyclical component can be attributed to the federal budget and the rest to the budgets of the social security system, the states and municipalities. Subtracting the cyclical component from the fiscal balance leads to the cyclically adjusted fiscal balance, which means, for example, that an output gap of – 1 percent generally results in a cyclical component of the budget deficit of 0.5 percent of GDP.

Third, the medium-term objective of the SGP has to be observed. Therefore, net borrowing must be limited to the medium-term objective of the SGP ("close to balance or in surplus") which tolerates a maximum structural deficit of 0.5 percent of GDP for the general government. In addition, in order to be compatible with the Maastricht definition, this amount should be corrected for net financial transactions (mainly privatisation gains). This aims at guaranteeing durably sustainable public budgets and therefore full compliance with the Code of Conduct of the revised SGP, which states: "Member States should achieve a more symmetrical approach to fiscal policy over the cycle through enhanced budgetary discipline in periods of economic recovery, with the objective to avoid pro-cyclical policies and to gradually reach their medium-term objective, thus creating the necessary room to accommodate economic downturns and reduce government debt at a satisfactory pace, thereby contributing to the long-term sustainability of public finance. The presumption is to use unexpected extra revenues for deficit and debt reduction".[4]

Since the Federation takes nearly 70 percent of the total public debt, we propose an interjurisdictional distribution of a net borrowing share of 70 and 30 percent between the Federation and the states. This would mean 0.35 percent of GDP for the Federation, i.e. a tolerated Maastricht deficit of about € 8½ bn at present. Subsequently the allowed net borrowing ceiling (or the required minimum fiscal surplus) amounts to the cyclical component of the budget subtracted by the sum of 0.35 percent of GDP and net financial transactions.

Because in the long run public debt as a share of GDP is expected to be reduced to far below 60 percent, our approach – as well as that of the CEE – takes intergenerational justice and future viability into consideration. Debt reduction can be used to cover implicit liabilities, which, in turn, makes an important contribution to long-term sustainability of public finance. A decreasing public debt ratio also opens room for manoeuvre so that expenditures can be shifted towards tasks relevant to the future. This improves the quality of public finance. An exception clause to the general rule should be formulated only for specific emergency cases. In order to overcome an extreme crisis, e.g. a natural disaster coupled with a severe economic downturn, a two-thirds majority or an even higher quorum of the *Bundestag* may provide extra scope for net borrowing.

In terms of enforcement, there is a need for monitoring and setting incentives not only for the establishment but also for the execution of the budget. Deviations from the allowed expenditure ceiling (or the minimum fiscal surplus) defined by this budget rule will be put on a special account, the so-called control fund, which acts as "memory and buffer" if non-compliance with the rule is established *ex post*.

Deviations of the actual from the minimum fiscal balance are accumulated over the years in the control fund. However, the minimum fiscal balance may change over the course of the fiscal year compared to that forecasted at the time of the budget approval due to different unforeseen economic, i.e. cyclical developments. This will be taken into account in a pragmatic approach by correcting the cyclical component by the deviation of the actual growth rate of GDP from the forecasted one. A similar approach is chosen in the assessment of the excessive deficit procedure for Germany. This would mean, for example, that with a forecasted real GDP growth of 2 percent, but a realisation of only 1 percent, the one percentage difference between these two rates would be multiplied by the budgetary sensitivity and the share

[4] See European Commission (2006), Specifications on the Implementation of the Stability and Growth Pact and Guidelines on the Format and Content of Stability and Convergence Programmes, 2006, ec.europa.eu/economy_finance/about/activities/sgp/codeofconduct_en.pdf.

of the Federation. The same is true for the opposite case if the forecasted GDP growth is more pessimistic than the realisation. This so-called *ex post* additional cyclical component will then be added to the *ex ante* cyclical component and either reduces or increases the minimum fiscal balance that is not relevant for the control fund. The target-performance comparison will be made as soon as there are preliminary results for the budget and GDP growth of the fiscal year.

Nonetheless, in cases when the debit side is in excess of a defined threshold level possible policy measures have to be introduced as soon as an excess is observed. Consolidation measures have to be implemented in a way that the debit side falls below the threshold level again within a specified time scope. The threshold amount could be set at above 1 percent of GDP, for example. A backward simulation of this rule to the years 2000 until 2007 shows that this level would never have been exceeded on the debit side. This simulation was done under the assumptions that the allowed net borrowing is bailed out *ex ante*, i.e. at the time of budget approval. Deviations between targeted and actual net borrowing equal the actual deviations in the past (taking net financial transactions into account).

As pointed out above, the opportunity to introduce a new budget rule should be exploited now. And as the general government budget will be balanced in 2011 according to the current budget plan, it seems unnecessary to consider an adjustment path until the new budget rule can work. The new rule would become effective when the budget is balanced. As the SGP demands budget discipline for the general government and the Federation takes the responsibility vis-à-vis the EU, it might be politically desirable to have a budget rule that covers not only the central governmental level but also the state level. (In principle all municipalities should have a balanced budget.) Basically there is no technical problem to translate the budget rule to all levels of government, though there is no need for fiscal policy to do so. As tax revenues among the states are equalised to a large extent by the fiscal equalisation scheme between the federal government and the states, there is no close relation between regional GDP and regional tax revenue. The cyclical component therefore could be divided according to the distribution of tax revenues after fiscal equalisation, which corresponds to the split made based on the share of the population.

But a translation of the proposed budget rule to the states could cause some problems, since the starting conditions and, consequently, the time path to a structurally balanced budget differ from one state to another. While some of them have a balanced budget or are even in surplus, others have a distressed budget: the eastern German states, for example, additionally receive special equalisation payments from the federal government. The main task of the states is merely to introduce a preventive measure in order to avoid financial distress of the individual states, which was also demanded by the Federal Court of Justice. This could be, for example, an early warning system. In this context a stability council sets a time path for those states lacking a balanced budget, formulates a concept of financial restructuring for a state in distress, controls the state's adherence to it, and decides on possible sanctions if the consolidation program fails.

Conclusion

A reform of the existing budget rule is inevitable in Germany. Economic and fiscal conditions as well as the political environment of a grand coalition are favourable for a reform and such an opportunity should be fully exploited. The reform of a budget rule is one of the main topics of the Committee on the Modernisation of the Financial Relations between the Federation and the states at present – a task additionally triggered by the Federal Constitutional Court.

Although the need for a new budget rule appears to be clear, the question, however, about its format remains. The link of the budgetary process to the business cycle is not new. What is new is the application of econometric methods in budget policy making. Another innovation would be the introduction of a link between the establishment and the execution of the budget in the form of the control fund. The Swiss experience shows that this is technically and politically feasible.

Beyond the necessary political commitment, there are, of course, some questions about the technical realisation to be solved if the budget rule is reformed in the sense outlined above. A particular concern is about the design of the control fund and how it should work. The formulation for the Constitution also poses a challenge. But we think that all these are manageable. The gain of a credible commitment to sustainable public finance should by far outweigh its costs.

Last but not least, all this has to be realised in a manageable way for the daily work of preparing, executing and controlling the budget. Parliamentarians of all parties now seem to accept that Germany needs a new stricter deficit rule which will also diminish or self-restrict ministers' and minister presidents' power to spend on the federal and the state level, respectively. Moreover, it is a paradigm change, more "economic" than the old rule to which everybody is accustomed. So it will take time to overcome the existing scepticism related to implementing a new system. Nevertheless, we are convinced that this new model will gain political and public acceptance due to its positive impact on public finance, and, consequently on growth and sustainability of German economy.

References

André, Ch. and N. Girouard (2005), *Measuring Cyclically-adjusted Budget Balances for OECD Countries*, OECD Economics Department Working Paper 434.

Bundesverfassungsgericht (1989), "Kreditobergrenzen gem. Art. 115 I GG", *BVerfGE* 79, 311.

Bundesverfassungsgericht (2007), *Leitsätze zum Urteil des Zweiten Senats vom 9. Juli 2007*, 2 BvF 1/04 vom 9.7.2007, Absatz-Nr. (1-220), http://www.bverfg.de/entscheidungen/fs20070709_2bvf000104.html.

Büttner, T., A. Dehne, G. Flaig, O. Hülsewig and P. Winker (2005), *Berechnung der BIP-Elastizitäten öffentlicher Ausgaben und Einnahmen zu Prognosezwecken und Diskussion ihrer Volatilität*, Expertise on behalf of the Federal Ministry of Finance, Project No. 06/05, Ifo Institute for Economic Research, Munich.

European Commission (2006), *Specifications on the Implementation of the Stability and Growth Pact and Guidelines on the Format and Content of Stability and Convergence Programmes*, ec.europa.eu/economy_finance/about/activities/sgp/codeofconduct_en.pdf.

Groneck, M. and R. C. Plachta (2008), "Teilentschuldung nur mit sanktionsbewehrter Regel", *ifo Schnelldienst* 60/9, 10–14.

Hanushek, E. A. (2002), *The Failure of Input-based Schooling Policies*, NBER Working Paper 9040.

Horn, G. A., T. Niechoj, A. Truger, D. Vesper und R. Zwiener (2008), *Zu den Wirkungen der BMF-Schuldenbremse*, IMK Policy Brief, May 2008, Düsseldorf.

Kommission zur Modernisierung der Bund-Länder-Finanzbeziehungen (2008), *Modell einer neuen Schuldenregel – Ausarbeitung des Bundesministeriums der Finanzen*, Kommissionsdrucksache 096, Berlin.

Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung (2004), *Erfolge im Ausland – Herausforderungen im Inland, Annual Report 2004/2005*, Berlin.

Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung (2007), *Staatsverschuldung wirksam begrenzen*, Expertise on behalf of the Minister of Economics and Technology, March 2007, Berlin.

Schweizerischer Bundesrat (2000), *Botschaft zur Schuldenbremse*, Bern.

Vesper, D. (2008), *Defizitziel versus Ausgabenpfad: Plädoyer für eine berechenbare Haushaltspolitik*, WISO Diskurs, March 2008, Bonn.

Wissenschaftlicher Beirat beim Bundesministerium der Finanzen (1980), *6. Gutachten zum Begriff der öffentlichen Investitionen – Abgrenzungen und Folgerungen im Hinblick auf Art. 115 Grundgesetz*, Schriftenreihe des Bundesministeriums der Finanzen 29, Berlin.

Wissenschaftlicher Beirat beim Bundesministerium der Finanzen (2007), *Schuldenbremse für Bund und Länder – Für eine Neufassung der Verschuldungsgrenzen im Grundgesetz*, Letter of the Advisory Council to the Federal Ministry of Finance as of 10 February 2007, Berlin.

Harmonizing Corporate Income Taxes in the US and the EU: Legislative, Judicial, Soft Law and Cooperative Approaches

Charles E. McLure, Jr.*

The existence of 27 national corporate tax systems based on separate accounting and the arm's length standard (SA/ALS) poses serious obstacles to the creation of a single market within the European Union (EU). These include complexity, manifested especially – but not only – in the need to document and monitor transfer prices, the possibility of double taxation, and the general inability to offset losses incurred in one Member State against income earned in another. Moreover, income can be shifted from Member States where it would be taxed relatively heavily to others, where it would be taxed more lightly (see Commission of the European Communities 2002 and McLure 2008b). In addition, the European Court of Justice (ECJ) has found that, *as implemented by some Member States*, certain common features of Member State tax systems, including some often associated with SA/ALS (e.g., thin capitalization rules, imputation systems and exit taxes) are inconsistent with a single market.

To overcome these obstacles, the European Commission (2001b) has suggested that EU Member States consider adopting a Common Consolidated Corporate Tax Base (CCCTB). Under the CCCTB, a group of related companies could opt to use a formula to divide the group's consolidated income among the Member States where the group operates, in proportion to the fraction of the group's economic activity occurring there. Taxable income, the consolidated group, and the apportionment formula would be defined uniformly throughout the EU. Tax harmonization is not intended to encompass harmonization of statutory tax rates. (On the basic features the CCCTB might exhibit, see Agúndez-García 2006; McLure 2008b, and documents of the CCCT Working Group available on the website of the Taxation and Customs Directorate-General of the European Commission.) Jurisdiction to tax is generally not addressed in discussions of the CCCTB, it apparently being assumed, usually implicitly, that it would continue to be based on the existence of a permanent establishment.

It is widely assumed that it would be impossible to achieve the unanimous vote of all Member State representatives to the Council of the European Union ("the Council") required to adopt the CCCTB. Thus the Commission (2001a) has suggested that a subset of Member States might adopt the CCCTB through "enhanced cooperation," which allows as few as eight Member States – nine, if and when the Lisbon Treaty becomes effective – to agree formally to "go faster." Some may wonder whether "soft law" approaches, which underlie some recent Commission tax initiatives, might be employed to achieve harmonization. The first part of this article examines the possibility of employing legislative, judicial, and soft-law approaches or enhanced cooperation to harmonize corporate income taxes in the EU.

In the United States, as in Canada, taxation of most corporate income has long been based on formula apportionment. The EU has thus looked to US experience for lessons regarding how to structure the CCCTB. Hellerstein and McLure (2004a and 2004b) and Weiner (2006) describe some such lessons, many of them negative. The feature of US state corporate income taxes that perhaps most surprises European observers – one not to be emulated – is the extent to which these taxes are not harmonized. The second part of this article describes whether and how legislative, judicial, and cooperative approaches have – or have not – been employed to harmonize state corporate income taxes.

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Corporate tax harmonization in the EU[1]

Potential means of harmonization

Legislation: Under Article 94 of the EC Treaty, the Council could, in theory, adopt directives that would harmonize the corporate income taxes of Member States. But, because that article requires unanimous agreement on tax provisions to be applied throughout the EU and a number of Member States (notably Ireland and the United Kingdom, but also Cyprus, Latvia, Lithuania, Malta and Slovakia) have expressed opposition to the CCCTB, there is little hope that the Council would enact a directive mandating CCCTB.

Judicial decisions: While the ECJ has achieved a degree of proscriptive harmonization, by outlawing certain tax practices, proscription can never create a truly harmonized system, as that would require the Court to legislate on the myriad details that comprise a tax code. Moreover, the ECJ reacts passively to cases brought before it; does not take the initiative in harmonization. Thus the Commission has suggested resort to enhanced cooperation.

Soft law: Before turning to enhanced cooperation, it will be convenient to dispose of soft law, usefully defined as "rules of conduct that are laid down in instruments which have not been attributed legally binding force as such, but nevertheless may have certain (indirect) legal effects, and that are aimed at and may produce practical effects" (Senden 2004, 112). The best-known example of soft law in the tax field, the Code of Conduct on Business Taxation, involves proscriptive harmonization: agreement of Member States not to engage in tax practices identified as harmful. Soft law could not produce the detail and legal certainty required for the CCCTB, and Member States that oppose the CCCTB are unlikely to participate in a soft law initiative to introduce it. Enhanced cooperation thus seems to offer the best – and perhaps the only – hope for introducing the CCCTB.

Enhanced cooperation: The Commission has promised to produce a proposal for the CCCTB by the end of 2008, but presumably does not expect the proposal to gain unanimous support. Thus, once the Council has rejected the proposal, the Commission will presumably propose that enhanced cooperation be used to start the CCCTB ball rolling – provided it is asked by at least eight Member States to do so and believes that it can muster the qualified majority required to approve the exercise of enhanced cooperation. The Commission has created the CCCTB Working Group, composed of tax experts from Member States, to assist it in ironing out the many details of the CCCTB, including the crucial administrative details that economists seldom consider, and perhaps to build support for the CCCTB among Member States. The Commission envisages use of the comitology procedure to deal with many details, especially of procedure (see McLure 2008a).

The role of the Commission in tax policy: Under the EC Treaty, the Commission has sole responsibility for forwarding legislative proposals, including those for enhanced cooperation, to the Council (or, regarding most non-tax issues, to the Council and the European Parliament). As "guardian of the Treaties, it initiates infringement cases before the ECJ and may support the position of other (Member State or private) litigants. (It may argue that certain tax provisions violate the EC Treaty or that they constitute state aids.) The Commission has sometimes used this power to gain Member State support for initiatives or to induce harmonized solutions.

Prospects for enhanced cooperation

It is unclear whether eight or more Member States will favor adopting the CCCTB via enhanced cooperation and whether the required qualified majority of Member States will vote to allow it. After all, enhanced cooperation does not produce soft law that lacks binding legal effect; for Member States choosing to participate, laws enacted under enhanced cooperation are binding, in the same way as directives, and they will cast a long shadow. Support may depend, inter alia, on the strength of business support for CCCTB and the effects on revenues, output, and welfare the various Member States expect to experience. These are likely to depend, in turn, on details such as the apportionment formula chosen and especially on whether corporate participation in the CCCTB is mandatory or voluntary, as mandatory participation would limit opportunities for tax planning.

Business support: A recent survey of tax officials of 403 large corporations doing business in more than one EU Member State suggests substantial business support for the CCCTB. Although details of the

[1] This discussion is based on McLure (2008a). See also Martín (1999).

scheme have not been made public, 78 percent of respondents favored its adoption. Even in Ireland, whose government is adamantly opposed to CCCTB, half or respondents favored adoption. Only 15 percent of interviewees thought harmonization would never occur, 66 percent thought CCCTB would be in place by 2015, and 85 expected to see it by 2020 (see KPMG 2007). Of course, it is one thing to view positively a pig in a poke and another actually to buy it. Once the Commission has introduced its proposal, business support may either increase or decrease.

Revenue and other effects: Several attempts have been made to estimate the revenue effects of replacing the present system with the CCCTB. Unfortunately, while results of these studies show some qualitative similarity, quantitative estimates of revenue losses vary widely, because of differences in methodologies, assumptions, and data. Moreover, for the most part, they attempt to estimate the revenue effects for each Member State and in the aggregate, assuming that all 27 Member States participate in CCCTB. It would be more useful to know the revenue effects for a limited number of Member States if only they were to adopt CCCTB via enhanced cooperation.

Using data on outbound FDI for German firms, employing an apportionment formula that accords equal weight to payroll, profits, and sales, and assuming mandatory corporate participation, Fuest, Hemmelgarn and Ramb (2007) estimate, for the 15 pre-2004 EU Member States, a 20 percent aggregate loss of corporate tax base of the multinational companies in their sample. Belgium, Ireland and the Netherlands are big losers, presumably because CCCTB would limit income shifting. Other Member States are estimated to lose substantial amounts of revenue primarily because of the ability under the CCCTB to offset cross-border losses.

Devereux and Loretz (2008), based on analysis of data from a sample of more than 400,000 EU companies, reach quite different conclusions. They find that aggregate revenues in 22 of the 25 pre-2007 Member States would fall by 2.5 percent if corporate participation is voluntary and would increase by about 1 percent if participation is mandatory. (If, as proposed, corporate participation is optional, Member States will almost certainly experience revenue losses.) Using a similar methodology, Oestreicher and Koch (2007) estimate a fall in aggregate revenues of 4.45 percent in 23 of the pre-2007 Member States if participation is compulsory and 4.57 percent if it is optional.

Estimates of effects on aggregate revenue are relatively insensitive to the choice of apportionment factors, but the estimated distribution of revenue changes among Member States is not, the inclusion of the number of employees in the apportionment formula being particularly important. Moreover, the estimated effects on the revenues of particular Member States, most notably Ireland and the Netherlands, depend crucially on whether corporate participation is voluntary or mandatory.

Under mandatory corporate participation, profits shifted to those Member States under SA/ALS would be apportioned among all Member States. Corporations that currently shift large amounts of profits to avoid taxes presumably would not participate in CCCTB if it were voluntary. But making corporate participation optional, while perhaps being necessary for political reasons, would substantially reduce its benefits, especially the reduction of income shifting.

Brøchner, Jensen, Svensson and Sørensen (2007) employ a sophisticated computable general equilibrium model to estimate for the 25 pre-2007 Member States the effects on GDP, welfare, and revenues of tax base coordination, with and without harmonization of tax rates, at either the weighted or unweighted average. They find that, in the aggregate, harmonization increases GDP and welfare, but, depending on the alternative examined, it has a relatively small negative or insignificant effect on revenues. Of more relevance for present purposes, effects on GDP and welfare and on revenues of individual Member States move in opposite directions, suggesting that it may be difficult for "winners" (however defined) to compensate "losers." Unfortunately, these estimates are based on separate accounting and do not include the effects of consolidation, including cross-border loss offset, or of formula apportionment. They thus may not be comparable to the other estimates reported here and may not accurately and fully indicate effects to be expected from adoption of CCCTB. While cross-border loss-offset may cause revenues to be affected more negatively than estimated, the prevention of profit-shifting inherent in consolidation may reduce (or reverse) revenue losses, except in Member States that benefit from profit-shifting. Loss offsetting may also contribute to eco-

nomic efficiency and thus to GDP and welfare. As the authors note, coordination would reduce costs of compliance and administration, adding further to GDP and welfare; these costs savings, which they (like the other authors) do not attempt to estimate, would be greater under consolidation.

Since CCCTB is unlikely to be adopted unanimously, especially in a compulsory form, the relevant question is whether eight or more Member States are likely to want to participate in enhanced cooperation. (A subsidiary issue that could be crucial, because of its precedental importance, is whether those pioneering Member States would make corporate participation mandatory.) That probably depends in part on the revenue effects those Member States could expect to experience, if only they were participating. It is difficult to infer much about this from the results mentioned above. It also seems senseless to analyze the revenue effects of all possible combinations of eight or more Member States. The most promising approach might be to analyze the revenue effects for eight Member States with relatively similar economies (especially corporate profitability, compared to payroll, profits, and sales) and tax systems (in terms of tax rates, existing provisions for cross-border loss offset, and absence of preferential regimes), taking due account of public announcements regarding CCCTB – especially opposition to it – by political leaders.

Devereux and Loretz (2008) examine the revenue effects in the six original members of the EC, plus Denmark and Austria, "two countries that already allow for international loss consolidation", if only those eight Member States were to engage in enhanced cooperation. With voluntary participation there is a 1.5 percent reduction in aggregate revenues. By comparison, there is a slight aggregate gain in revenue if participation is mandatory. But in that case the Netherlands would experience a substantial loss in revenue. It seems unlikely, of course, that the Netherlands would engage in enhanced cooperation with mandatory corporate participation.

Brøchner, Jensen, Svensson and Sørensen (2007) estimate the effects of tax harmonization on GDP, welfare and revenues under enhanced cooperation among the euro group (and for the 15 pre-2004 Member States of "old Europe"). The dispersion of effects across Member States for the euro zone is somewhat smaller than for EU25.

The dynamics of enhanced cooperation: The possibility of using enhanced cooperation to initiate harmonization creates an interesting dynamic. Bordignon and Brusco (2006) present a theoretical analysis of the dynamics of enhanced cooperation. Member States that oppose harmonization may not be able to prevent its being initiated via enhanced cooperation. But corporate tax harmonization begun in this way would almost certainly form the basis for future harmonization. Thus even Member States that oppose the CCCTB have an incentive to participate in the CCCTB Working Group, if only to prevent inclusion of provisions (especially compulsory corporate participation) that they would find objectionable, either now or if they decide later to participate in CCCTB. Consistent with this conjecture, representatives of all 27 Member States have been participating in deliberations of the Working Group.

Corporate tax harmonization in the United States

State corporate income taxes in the United States resemble in broad outline the type of system that would make sense for the EU, but differ from it in important respects (see McLure 2007 and 2008a). Moreover, reliance on legislative, judicial, and cooperative approaches in the two unions differs substantially, sometimes only in theory but sometimes also in practice.

Substantive issues[2]

Definition of income: The existence of the federal income tax and the federal Internal Revenue Service (IRS) is an important force for tax harmonization in the United States. Conformity of state corporate income taxes to the federal tax code contributes to uniformity, thereby reducing compliance costs and the possibility that there will be gaps and overlaps in the tax bases of the various states. State reliance on the IRS to take the "first cut" at tax administration contributes further to uniformity and cost reduction.

State adoption of the federal definition as their starting point in defining taxable income was the result of pressure from the business community, which decried the complexity of dealing with diverse definitions. Continued conformity is threatened by the tendency of the federal government to modify its

[2] See Hellerstein and Hellerstein (1998) for more detail on these issues.

definition of taxable income significantly from time to time, without consulting the states, which may "decouple" for revenue reasons.

Consolidation: Although some states require groups of corporations involved in a unitary business to file a combined report – the state equivalent of consolidation – many do not. (Some states provide for elective "consolidation", which generally follows the federal consolidation rules, which define a group wholly by reference to ownership. On the distinction between mandatory combination based on the unitary business principle and elective consolidation (see Hellerstein and Hellerstein 1998). Moreover, the US Supreme Court has ruled that there is no single definition of what constitutes a unitary business. There is thus little uniformity – and a substantial amount of litigation – regarding this aspect of state taxation.

Apportionment: The formulas employed by the states to apportion business income are not uniform. Whereas in 1978 all but one state employed a three-factor formula that placed equal weight on payroll, property, and sales, almost 80 percent of states that tax corporate income now assign at least one half the weight to sales, nine states use only sales to apportion income, and an additional six states will phase in sales-only apportionment. Moreover, states do not treat sales other than those of tangible products consistently.

Jurisdiction to tax: A federal law, Public Law (P.L.) 86–272, prohibits states from taxing the income of potential taxpayers whose only activity in the state is solicitation for sales of tangible products to be delivered from outside the state. Of course, much of modern commerce does not involve tangible products. Since there are no federal or judicial guidelines for jurisdiction to tax in this crucial area, state practice exhibits substantial diversity. (The US Supreme Court refused to hear a case where a decision would have provided guidance.)

Means of coordination

Legislation: The Commerce Clause of the US Constitution gives the US Congress plenary power to regulate interstate commerce (see Hellerstein 2007). Although states have no power to veto (or even have a direct say in) federal legislation affecting state taxation, they can attempt by political means to prevent or modify such legislation. In fact, Congress has only once enacted legislation (P.L. 86–272) that seriously restricts state corporate taxation.

Judicial decisions: Although the US Constitution does not contain provisions equivalent to the "freedoms" (of movement of people, goods, and capital and of establishment) found in the EC Treaty, the US Supreme Court's interpretation of the Commerce Clause creates essentially the same effect. While the Court has outlawed many specific details of state taxation, it has generally given the states considerable latitude regarding "big picture" issues such as the definition of income, consolidation, and formula apportionment. In particular, it has not required uniformity, which would be tantamount to legislating.

Soft law: Soft law, as that concept is understood in the EU, does not exist in the United States; law that is not "hard" (that is, legally binding, being enshrined in legislation or court decisions) is not law. Even so, interstate cooperation sometimes takes on attributes of soft law, as defined above.

Interstate cooperation: The US Constitution does not provide for anything resembling enhanced cooperation. The Compact Clause authorizes states to enter into compacts of any kind with the consent of Congress, and states can join compacts, even without Congressional consent, as long as doing so does not expand their powers at the expense of federal powers. The states have rarely engaged voluntarily or successfully in cooperative efforts to harmonize their corporate income taxes. They have generally acted only when faced with the prospect of federal legislation that would restrict their taxing powers. The state initially showed little interest in the most important such effort, the Uniform Division of Income for Tax Purposes Act (UDITPA), a model law drafted in 1957. When federal legislation was introduced in the mid-1960s that would have regulated state taxation of corporate income, the states quickly created the Multistate Tax Compact, which incorporates UDITPA, and the Multistate Tax Commission. Among the stated purposes of the Compact is to "promote uniformity or compatibility in significant components of tax systems" (see Hellerstein and Hellerstein 1998; McLure 2008c and references cited there).

UDITPA is not hard law; it is a model law that states can adopt or not – or repeal – as they wish. Although most income-tax states have adopted

statutes that incorporate UDITPA or are patterned after it, many deviate from that model law in significant ways. A key element of UDITPA, the equally-weighted three-factor apportionment formula, has been seriously eroded by the increased (or exclusive) weight many states, including members of the Multistate Tax Compact, now place on sales. Moreover, as its name indicates, UDITPA deals only with the division of income. It does not address the definition of the income to be divided or the issues of jurisdiction to tax or combination. An effort to revise and modernize UDITPA has recently been launched. It seems likely, however, that, because of business opposition and the states' apparent lack of interest in uniformity, not much progress will be made on the big picture harmonization issues of jurisdiction to tax, combination, and the apportionment formula.

No "guardian of the Constitution": In the United States no organization is the "guardian of the Constitution" as the European Commission is the "guardian of the Treaty" in the EU. That is, no US governmental institution is charged with formulating and advocating legislation that is consistent with an internal market.

Summary comparison and commentary

Whereas the Commission has urged EU Member States to replace their diverse corporate tax systems, which are based on SA/ALS, with a uniform system based on consolidation and formula apportionment, the US states have long had apportionment-based systems, albeit systems that are defective and far from uniform in many important respects. The US Congress has the constitutional power to legislate uniformity, but has not, in part because of the political opposition of both the states and business. While the EC Treaty confers similar legislative powers on the Council, any Member State can veto the exercise of those powers. Enhanced cooperation, by as few as eight Member States, is the most likely mechanism for initiating the CCCTB.

The US Supreme Court has accorded the states wide latitude in the exercise of fiscal sovereignty over big issues in corporate taxation, while proscribing many specific practices that discriminate against interstate commerce. By comparison, the ECJ has issued decisions that render certain tax practices off limits; of course, it has had no occasion to rule on the CCCTB. Enactment of the CCCTB by directive would make the Court's job relatively straightforward. (Its role would change dramatically, from a quasi-Constitutional Court interpreting the freedoms to a Supreme Court making sure that Directives are interpreted in a uniform manner throughout the EU.) By comparison, initiation of CCCTB via enhanced cooperation could raise thorny questions of compatibility with the EC Treaty, for example, because activities in participating and non-participating Member States would not be treated in the same way.

While interstate cooperation can and does occur in the United States, there is no concept in US law similar to enhanced cooperation, which creates hard law that is binding on EU Member States that participate in it. Moreover, in the United States no institution plays a role analogous to that of the European Commission as "guardian of the Treaty". Of potentially great importance, the Commission champions CCCTB. These two differences – plus the increasing cost reliance on SA/ALS will impose on the economies of the EU as economic integration proceeds – seem conducive to, but do not guarantee, enactment of the CCCTB, if only by a subset of Member States. It seems likely that, if once created via enhanced cooperation, the "CCCTB club" would gradually expand to produce a system that exhibits more uniformity than state corporate income taxes in the United States.

References

Agúndez-García, A. (2006), *The Delineation and Apportionment of an EU Consolidated Tax Base for Multi-jurisdictional Corporate Income Taxation: A Review of Issues and Options*, European Commission, Directorate-General Taxation & Customs Union, Taxation Papers, Working Paper 9.

Bordignon, M. and S. Brusco (2006), "On Enhanced Cooperation", *Journal of Public Economics* 90, 2063–2090.

Brøchner, J., J. Jensen, P. Svensson and P. B. Sørensen (2007), "The Dilemmas of Tax Coordination in the Enlarged European Union", *CESifo Economic Studies* 53, 561–595.

Commission of the European Communities (2001a), *Tax Policy in the European Union – Priorities for the Years Ahead*, A Communication from the Commission to the Council, the European Parliament and the Economic and Social Committee, COM(2001) 260 final, Brussels.

Commission of the European Communities (2001b), *Towards an Internal Market without Tax Obstacles: A Strategy for Providing Companies with a Consolidated Corporate Tax Base for Their EU-wide Activities*, A Communication from the Commission to the Council, the European Parliament, and the Economic and Social Committee, COM(2001) 582 final, Brussels.

Commission of the European Communities (2002), *Company Taxation in the Internal Market*, Commission Staff Working Paper, Luxembourg: Office for Official Publications of the European Communities.

Devereux, M. and S. Loretz (2008), *The Effects of EU Formula Apportionment on Corporate Tax Revenues*, Oxford University Centre for Business Taxation, Working paper 07/06, revised 31 January 2008.

Fuest, C., T. Hemmelgarn and F. Ramb (2007), "How Would the Introduction of an EU-wide Formula Apportionment Affect the Distribution and Size of the Corporate Tax Base? An Analysis Based on German Multinationals", *International Tax and Public Finance* 14, 605–626.

Hellerstein, W. (2007), "The U.S. Supreme Court's State Tax Jurisprudence: A Template for Comparison", in: Avi-Yonah, R. S., J. R. Hines and M. Lang (eds.), *Comparative Fiscal Federalism: Comparing the European Court of Justice and the U.S. Supreme Court's Tax Jurisprudence*, Deventer: Kluwer Law International, 67–118.

Hellerstein, J. R. and W. Hellerstein (1998), *State Taxation*, 3rd edition, Boston: Warren, Gorham and Lamont.

Hellerstein, W. and C. E. McLure, Jr. (2004a), "The European Commission's Report on Company Income Taxation: What the EU Can Learn from the Experience of the US States", *International Tax and Public Finance* 11, 199–220.

Hellerstein, W. and C. E. McLure, Jr. (2004b), "Lost in Translation: Contextual Considerations in Evaluating the Relevance of US Experience for the European Commission's Company Taxation Proposals", *Bulletin for International Fiscal Documentation* 58, 86–98.

KPMG (2007), *EU Business Wants Single, Pan-European Tax System, Says KPMG International Study*, available at http://www.kpmg.com/Press/09.25.2007.htm.

Martín Jimenez, A. J. (1999), *Towards Corporate Tax Harmonization in the European Community: An Institutional and Procedural Analysis*, The Hague: Kluwer.

McLure, C. E. Jr. (2007), "The Long Shadow of History: Sovereignty, Tax Assignment, Legislation, and Judicial Decisions on Corporate Income Taxes in the US and the EU", in: Avi-Yonah, R. S., J. R. Hines and M. Lang (eds.), *Comparative Fiscal Federalism: Comparing the European Court of Justice and the U.S. Supreme Court's Tax Jurisprudence*, Deventer: Kluwer Law International, 119–190.

McLure, C. E. Jr. (2008a), "Legislative, Judicial, Soft Law, and Cooperative Approaches to Harmonizing Corporate Income Taxes in the US and the EU," Paper presented at a conference on "National Fiscal Sovereignty: Integration and Decentralization," held in Ravenna, Italy, October 13–14, 2006; forthcoming in the *Columbia Journal of European Law* 14.

McLure, C. E. Jr. (2008b), "Harmonizing Corporate Income Taxes in the European Community: Rationale and Implications", in: Poterba, J. (ed.), *Tax Policy and the Economy*, Chicago: University of Chicago Press, 151–195.

McLure, C. E. Jr. (2008c), "Understanding Uniformity and Diversity in State Corporate Income Taxes", *National Tax Journal* 61, 141–159.

Oestreicher, A. and R. Koch (2007), *The Revenue Consequences of Using CCCTB to Determine Taxable Income in EU Member States, Finance*, Accounting and Taxation Research Unit Revised Working Paper 07-001, Georg-August-Universität Göttingen.

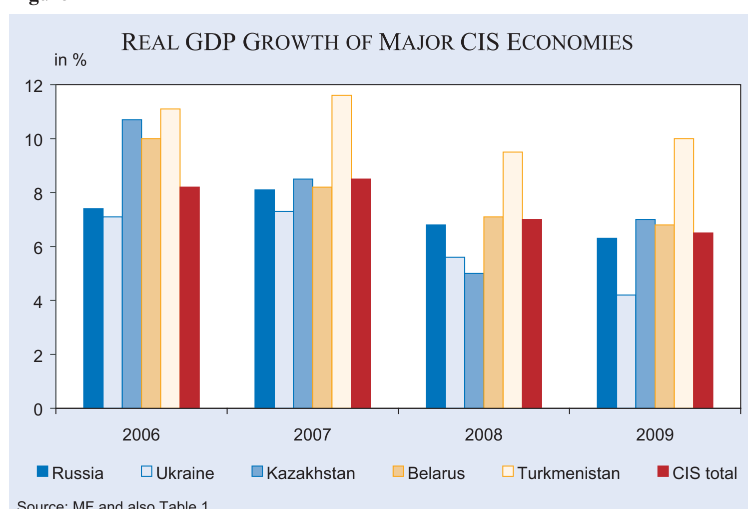
Senden, L. (2004), *Soft Law in European Community Law*, Oxford: Hart Publishing Co.

Weiner, J. M. (2006), *Company Tax Reform in the European Union: Guidance from the United States and Canada on Implementing Formulary Apportionment in the EU*, New York: Springer Business + Media.

Economic Prospects of Commonwealth of Independent States

According to the latest IMF World Economic Outlook, real GDP growth amounted to 8.5 percent in the Commonwealth of Independent States (CIS) in 2007, accompanied by high commodity prices, expansionary macroeconomic policies, strong capital inflows, rapid credit growth and rising asset prices stimulating domestic demand growth.[1] Yet, due to rapidly increasing imports, the contribution of external sector performance to economic growth was negative and current account balances weakened (see Table 1 and Figure 1).

Figure 1



Source: MF and also Table 1.

The strong economic growth of recent years has led to the elimination of spare capacity in most CIS economies, while wage growth has continuously risen. Also triggered by accelerating food prices, this has resulted in a sharp increase in inflation across the region very recently. In Russia inflation rose to almost 12 percent in December 2007, while its annual average rate is anticipated to reach around 20 percent in Azerbaijan, Kazakhstan, the Kyrgyz Republic, Tajikistan and Ukraine in 2008.

The instability in global financial markets has begun to affect most CIS economies, particularly since bank and portfolio inflows have recently become the major source of external financing there. In Russia and Ukraine, where banks have borrowed heavily in international markets to finance rapid growth in domestic lending, spreads on external debt have widened remarkably. In Kazakhstan, its impact has been even worse, with external financing drying up, credit growth slowing, and reserves initially declining as the central bank intervened in the foreign exchange market to support the exchange rate.

High oil and commodity prices should continue to provide support for economic growth of CIS, but a

[1] International Monetary Fund (IMF), World Economic Outlook, April 2008, Washington DC, Chapter 2.

Table 1

Real GDP Growth and Development of Consumer Prices and Current Account Balance in CIS Economies (Annual percent changes unless noted otherwise)

	Real GDP				Consumer prices				Current account balance*			
	2006	2007	2008	2009	2006	2007	2008	2009	2006	2007	2008	2009
Russia	7.4	8.1	6.8	6.3	9.7	9.0	11.4	8.4	9.5	5.9	5.8	2.9
Ukraine	7.1	7.3	5.6	4.2	9.0	12.8	21.9	15.7	– 1.5	– 4.2	– 7.6	– 9.7
Kazakhstan	10.7	8.5	5.0	7.0	8.6	10.8	17.1	8.3	– 2.2	– 6.6	– 1.7	– 1.0
Belarus	10.0	8.2	7.1	6.8	7.0	8.4	11.2	8.8	– 4.1	– 6.6	– 7.5	– 7.7
Turkmenistan	11.1	11.6	9.5	10.0	8.2	6.4	12.0	12.0	15.3	16.8	23.6	28.1
Armenia	13.3	13.8	10.0	8.0	2.9	4.4	6.8	4.5	– 1.8	– 6.5	– 6.8	– 5.0
Azerbaijan	30.5	23.4	18.6	15.6	8.4	16.6	19.6	20.5	17.7	28.8	39.5	39.2
Georgia	9.4	12.4	9.0	9.0	9.2	9.2	9.6	6.4	– 15.9	– 19.7	– 16.6	– 13.2
Kyrgyz Republic	3.1	8.2	7.0	6.5	5.6	10.2	18.8	10.2	– 6.6	– 6.5	– 8.3	– 7.4
Moldova	4.0	5.0	7.0	8.0	12.7	12.6	11.4	7.9	– 12.0	– 9.7	– 10.3	– 10.6
Tajikistan	7.0	7.8	4.1	7.0	10.0	13.2	18.5	10.5	– 3.0	– 9.5	– 8.3	– 7.1
Uzbekistan	7.3	9.5	8.0	7.5	14.2	12.3	11.8	10.9	18.8	23.8	24.6	20.8
CIS total	8.2	8.5	7.0	6.5	9.5	9.7	13.1	9.5	7.5	4.5	4.8	2.4

* Percent of GDP.

Source: IMF.

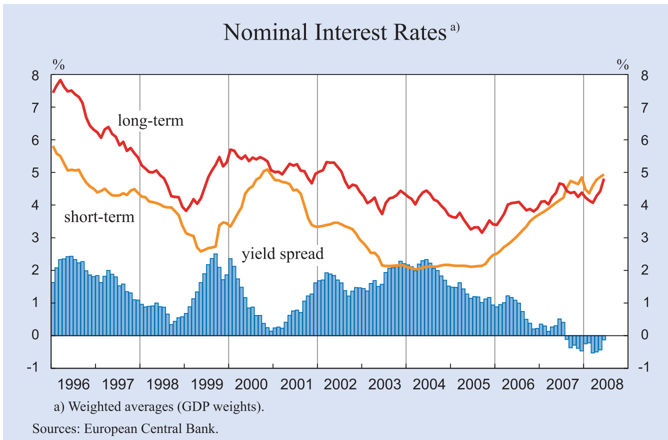
weaker global economy (which would likely lead to a decline in oil and commodity prices) and slower credit growth could dampen the expansion pace. As a consequence, real GDP growth of CIS is expected to ease to 7 percent in 2008 and 6.5 percent in 2009. For Russia the IMF projects a real GDP growth rate of 6.8 percent in 2008 and 6.3 percent in 2009, compared to that of 5.6 percent (2008) and 4.2 percent (2009) for Ukraine (see also Figure 1). On the other hand, strong growth appears set to continue in some low-income CIS countries like Azerbaijan, Armenia, Moldova and Uzbekistan (see Table 1).

The most immediate policy challenge in the region is to control high inflation. In spite of the expected slowdown in overall economic growth and food price increase, inflation is likely to remain "uncomfortably" high in the short term, unless restrictive macroeconomic and monetary policies are swiftly implemented. For example, fiscal policy has excessively added to demand pressure in Russia, Ukraine, Azerbaijan and Georgia. In addition income policies should be geared toward achieving wage outcomes consistent with "single-digit" inflation, given underlying trends in productivity. Tighter monetary policy combined with greater exchange rate appreciation will also be needed in Russia and Georgia, whereas monetary conditions were tightened in Ukraine beginning in the second half of 2007. As already mentioned above, such monetary policy tightening took place in Kazakhstan in December 2007, as inflation increased and the exchange rate came under strong downward pressure.

In the long run, CIS economies should diversify their production base away from the current strong reliance on commodities. Moreover, with only 22 percent of GDP in 2007, investment in the region remains rather low and is mainly concentrated in extractive industries and construction. Some intensive efforts seem to be additionally necessary in order to stimulate private sector investment, which include improvement of business climate, continuation of trade reforms, development of more diversified domestic financial systems, etc.

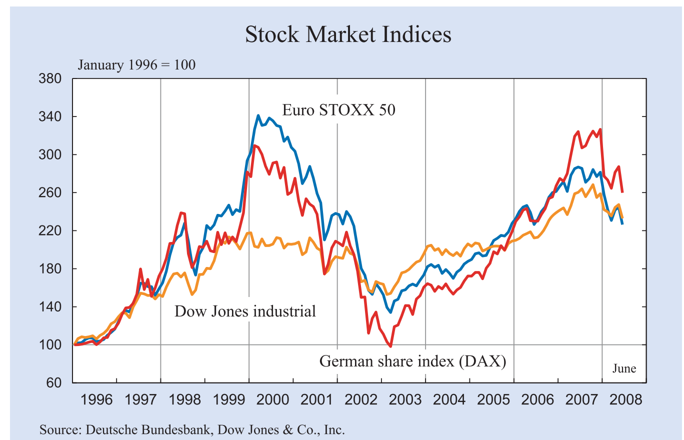
NCW

Financial conditions in the euro area



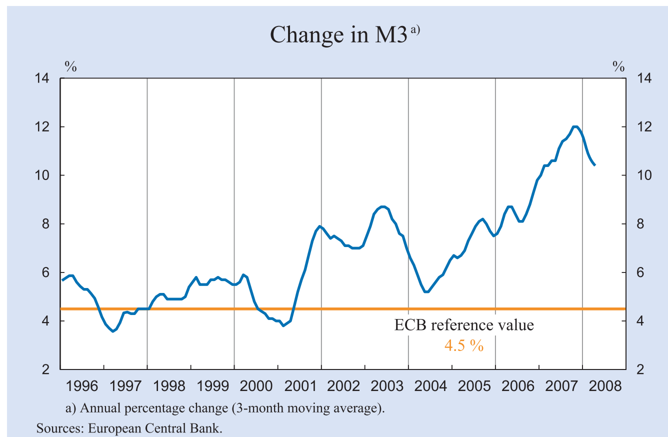
a) Weighted averages (GDP weights).
Sources: European Central Bank.

In the three-month period from April to June 2008 short-term interest rates rose. The three-month EURIBOR rate increased from an average 4.78% in April to 4.94% in June. The ten-year bond yields also increased from 4.28% in April to 4.81% in June. In the same period of time the yield spread grew from – 0.50% (April) to – 0.13% (June).



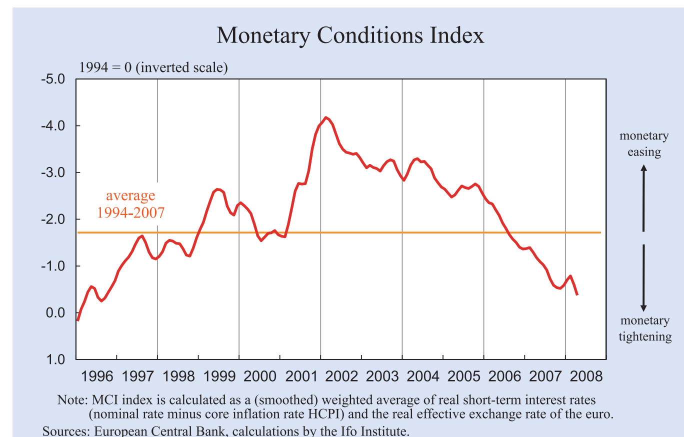
Source: Deutsche Bundesbank, Dow Jones & Co., Inc.

The German stock index DAX declined in June 2008, averaging 6,418 points compared to 6,949 points in April and 7,097 points in May. The Euro STOXX also fell from 3,768 in April to 3,528 in June. The Dow Jones International also declined, averaging 12,057 points in June compared to 12,657 points in January and 12,812 points in May.



a) Annual percentage change (3-month moving average).
Sources: European Central Bank.

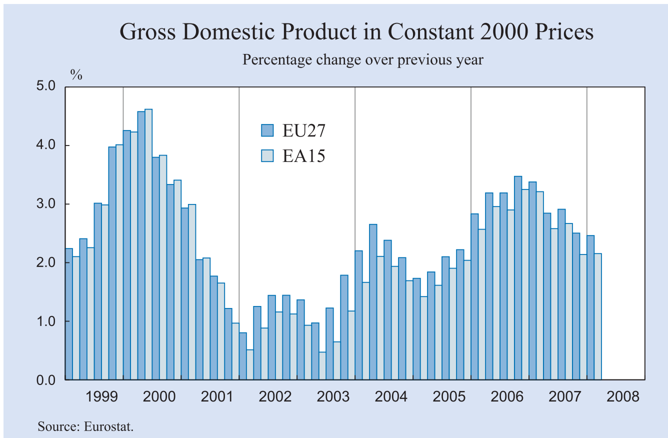
The annual rate of growth of M3 stood at 10.5% in May 2008, unchanged from April. The three-month average of the annual growth rate of M3 over the period from March to May 2008 declined to 10.4%, from 10.6% in the period February to April 2008.



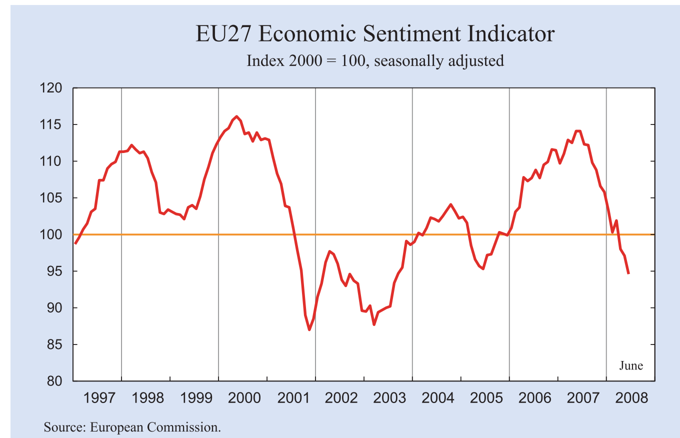
Note: MCI index is calculated as a (smoothed) weighted average of real short-term interest rates (nominal rate minus core inflation rate HCPI) and the real effective exchange rate of the euro.
Sources: European Central Bank, calculations by the Ifo Institute.

In April 2008 the monetary conditions index continued its general decline that had started in late 2001, signalling greater monetary tightening. This is the result of rising real short-term interest rates and a rising real effective exchange rate of the euro.

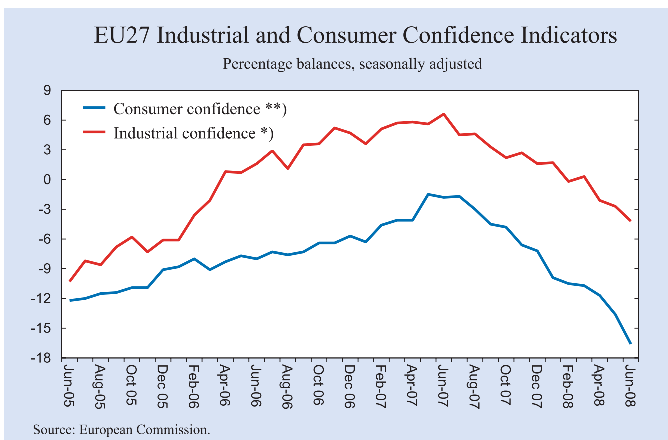
EU survey results



According to the first Eurostat estimates, euro area (EU15) and EU27 GDP grew by 0.8% in the first quarter of 2008 compared to the previous quarter. In the fourth quarter of 2007 the growth rate had amounted to 0.3% for the euro area and 0.5% for the EU27. Compared to the first quarter of 2007, i.e. year over year, seasonally adjusted GDP rose by 2.2% in the euro area and by 2.5% in the EU27.

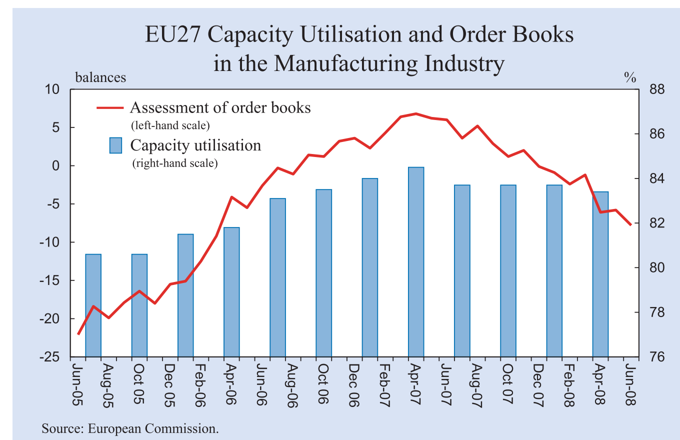


In June 2008, the EU Economic Sentiment Indicator (ESI) fell by 2.5 points in the EU27 and decreased by 2.7 points in the euro area, to 94.6 and 94.9 respectively. In both regions the ESI remains below its long-term average. Spain registered a significant drop (– 6.2), while declines were moderate in France (– 2.7), Germany (– 1.5) and Italy (– 0.1). Overall economic confidence improved in the UK (+ 2.1).



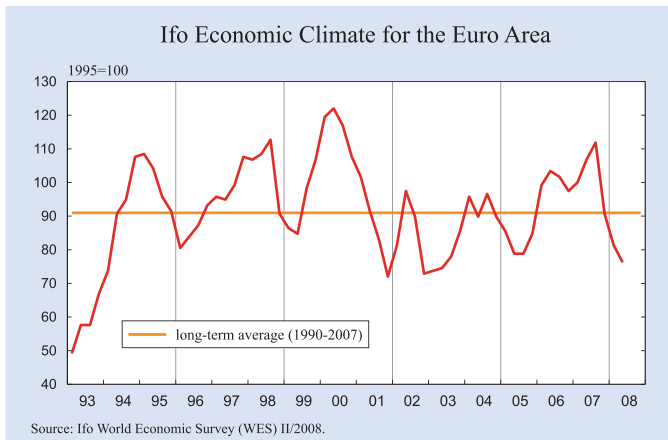
* The industrial confidence indicator is an average of responses (balances) to the questions on production expectations, order-books and stocks (the latter with inverted sign).
** New consumer confidence indicators, calculated as an arithmetic average of the following questions: financial and general economic situation (over the next 12 months), unemployment expectations (over the next 12 months) and savings (over the next 12 months). Seasonally adjusted data.

In June 2008, the *industrial confidence indicator* fell in both the EU27 and the euro area. The decline was more marked in the euro area than in the EU27. Despite the downward trend observed since mid-2007, the level of the indicator still stands above its long-term average. *Consumer confidence* also declined in the EU27 and the euro area in June 2008. The indicator has been on a downward path since its peak in May 2007 and currently stands below its long-term average in both areas.

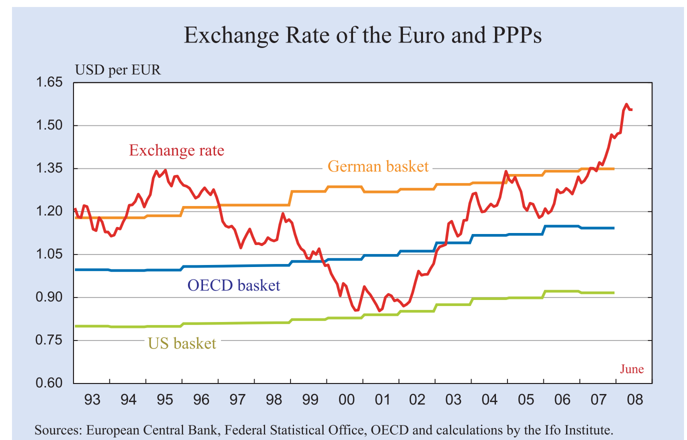


Managers' assessment of *order books* deteriorated from – 6.1 in April to – 7.8 in June 2008. In March the indicator had reached – 1.2. *Capacity utilisation* slightly declined to 83.4 in the second quarter of 2008 from 83.7 in the previous quarter.

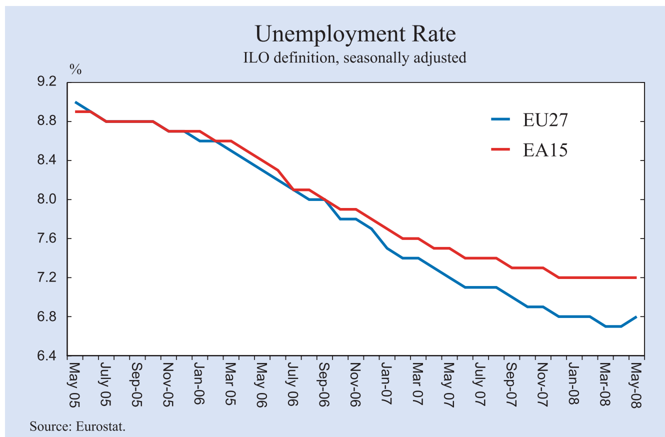
EURO AREA INDICATORS



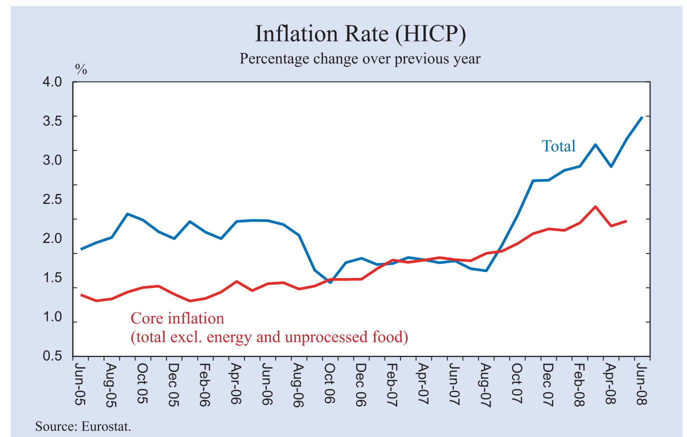
The Ifo indicator of the economic climate in the euro area (EU15) has worsened again in the second quarter of 2008 for the third time in succession, falling to its lowest level in five years. Its decline is the sole result of less positive assessments of the current economic situation. The economic expectations for the coming six months, although still in negative territory, have not worsened further.



The exchange rate of the euro against the US dollar averaged 1.56 $/€ in June 2008, a slight decrease from 1.57 $/€ in April. (In March the rate had amounted to 1.55 $/€.)



Euro area (EU15) unemployment (seasonally adjusted) stood at 7.2% in May 2008, unchanged from April. EU27 unemployment amounted to 6.4% in May 2008 compared to 6.7% in April. This is quite a decline from the 7.2% of a year earlier. Among the EU Member States the lowest rates were registered in Denmark (2.7%) and the Netherlands (2.9%). Unemployment rates were highest in Slovakia (10.5%) and Spain (9.9%).



Euro area annual inflation (HICP) was 3.7% in May 2008 after 3.3% in April. This is quite an increase from a year earlier, when the rate had been 1.9%. The EU27 annual inflation rate reached 3.9% in May. An EU-wide HICP comparison shows that in May 2008 the lowest annual rates were observed in the Netherlands (1.7%), Portugal (2.8%) and Germany (3.1%), and the highest rates in Latvia (17.7%), Bulgaria (10.9%) and Estonia (9.3%). Year-on-year EU15 core inflation (excluding energy and unprocessed foods) rose to 2.47% in May, from 2.40% in April.

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