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Russia: Crisis, Exit and Reform

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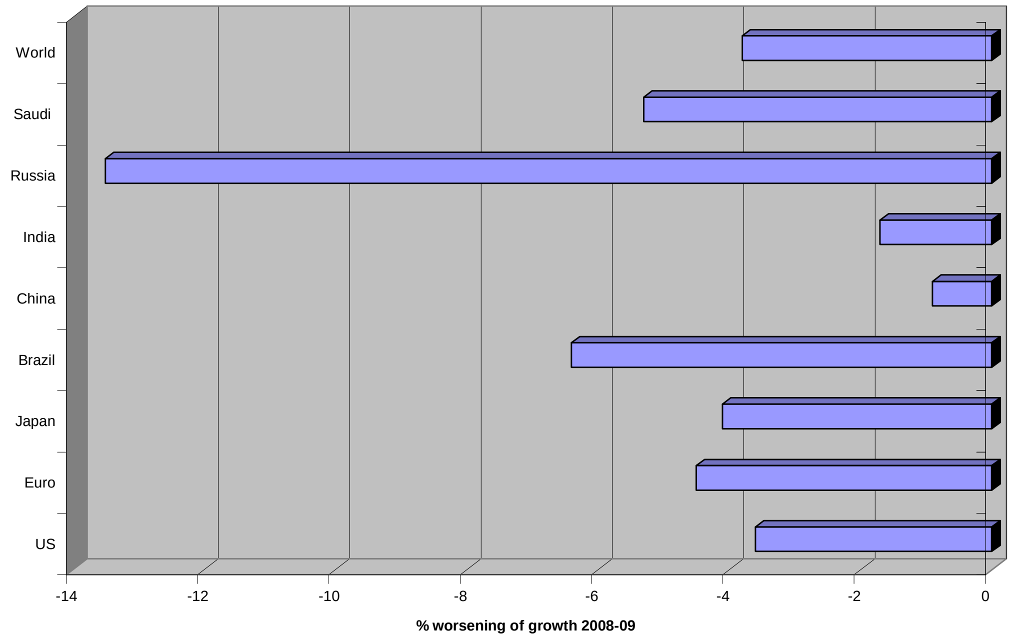
RUSSIA: CRISIS, EXIT AND…REFORM?

Philip Hanson

Abstract. Russia's experience of the economic crisis and its future economic prospects are examined. Evidence is provided that the sharp fall in GDP in 2008-09 was the result of the business world's perceptions of risk, conditioned by institutional weaknesses; it cannot be blamed simply on the fall in oil prices. Sources-of-growth analysis is used to assess likely development of Russian GDP in 2010-20, and policy and reform options are reviewed. Growth is likely to be slower than in 1998-2008; radical economic and political reform is unlikely; partial economic reform may be capable of generating some improvements in performance.

Russia did not have a good crisis. According to Rosstat estimates in May 2010, Russian economic activity fell for four successive quarters from mid-2008.[1] From the IMF's World Economic Outlook database it can be seen that Russian GDP fell in 2009 by more than that of any other G-20 country. There were smaller countries that fared worse, including all the Baltic states; but among large developed or emerging economies Russia's deterioration stands out. Russian economic performance worsened by considerably more, between 2008 and 2009, than that of the other BRICs, the Eurozone, the US, Japan or Saudi Arabia. The experience of the last of these, and of the Middle East as a whole, suggests that the steep deterioration in the Russian economy is not to be accounted for by its dependence on oil and gas. Other leading exporters of hydrocarbons experienced only a mild worsening of their economic conditions. Chart 1 illustrates the remarkable scale of Russia's economic reversal.

Chart 1. The worsening of Russian economic performance between 2008 and 2009 in comparative perspective (differences between 2008 recorded year-on-year change and the same for 2009, % p.a., Russia and selected countries and regions)



Sources: IMF World Economic Outlook database (see fn 2) and, for Russia in 2009, Rosstat (*ibid*.)

Russia's GDP growth before 2009 had been impressive, averaging about 7% a year over the inter-crisis decade 1998-2008. Macro-economic policy had been largely prudent. The government ran fiscal surpluses from 2000 on and built up a budgetary Reserve Fund that was around 10% of GDP by 2009; sovereign debt was paid off. Even by the end of 2009, Russian sovereign external debt was only 3.6% of GDP.[2]

In early 2010 the signs were that Russia was emerging from the crisis. It was doing so without the looming state debt problems that faced several European countries. Two questions arise: should we expect Russia simply to return to its pre-crisis rate of growth? And what are the prospects of the systemic reform that critics of Putinism[3] have been calling for?

In this paper I will offer tentative answers to these questions. It will be useful first to probe more deeply into Russia's remarkable 2009 downturn. This helps to identify some underlying, long-term weaknesses that may also affect future growth. Then I shall consider how far the conditions that favoured Russia's rapid inter-crisis growth might be expected to hold in the next decade.

Why such a sharp downturn?

The most obvious triggers for the decline in Russia's economic activity in 2008-09 were the fall in world oil prices and the world-wide flight from risk on capital markets.

The monthly average price of Urals oil was $130.8 in July 2008 and $38.1 by December: a dramatic warning signal. According to Central Bank of Russia statistics, the net outflow of private capital from Russia was $133bn in 2008 and $52bn in 2009. A net inflow had begun in 2005, and the reversal of that flow began before the collapse of Lehman Brothers in September 2008.[4]

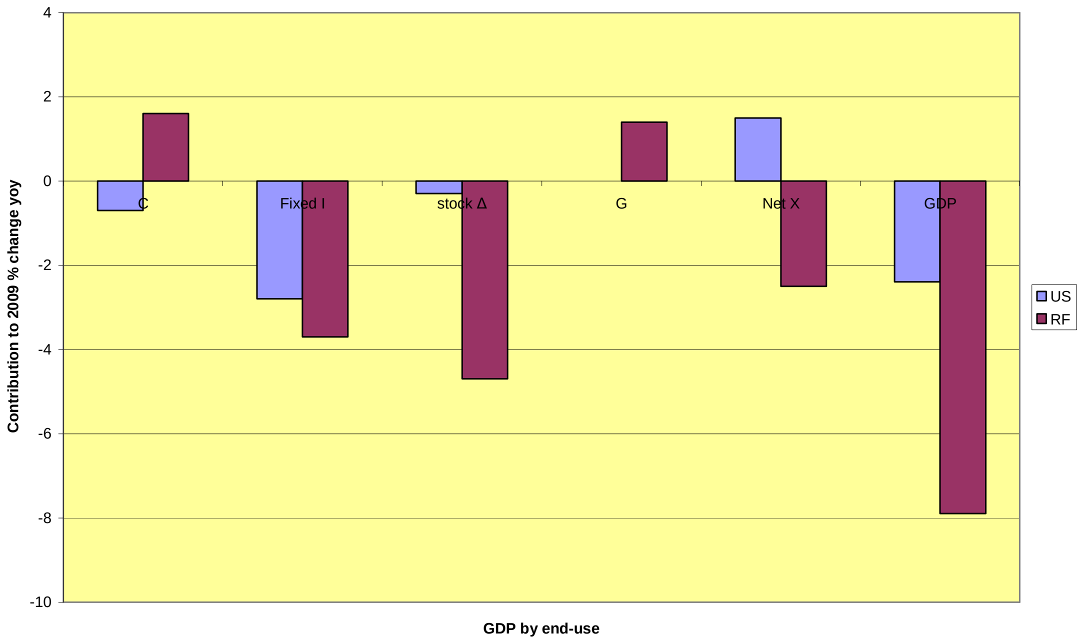
Neither the fall in oil prices nor the flight from risk can be enough, even together, to account for the plunge in Russian economic activity. The flight from risk, at least as a general tendency, affected all emerging economies. The fall in oil prices hit all oil exporters. Yet no large emerging economy and no major oil exporter suffered so severely. Mexico, it is true, came close: its GDP reduction in 2009 was the 19th greatest in the G-20. But there was an obvious additional factor so far as Mexico was concerned: its close dependence on the US economy.

It was not the case that the Ministry of Finance and the Central Bank of Russia managed the crisis poorly. The strong reserves position enabled policy-makers to arrange a net fiscal stimulus package of around 2.8% of GDP in 2009 without endangering sovereign credit ratings.[5] Accusations of a lack of transparency in the anti-crisis measures and a propensity to prop up Soviet-era relics like AvtoVAZ have some merit; but dodgy car plants were propped up almost everywhere.

So why was the Russian decline so sharp? One striking feature is the powerful role of changes in inventories of goods. Changes in inventories (in stocks, in the non-stock-market sense) are a minor ingredient in gross domestic final expenditure and in GDP. In most countries in most years, including in Russia, they are dwarfed by fixed investment, private consumption, government spending and net exports. Changes in those changes in stocks usually play a correspondingly tiny part in year-on-year changes in GDP. When recession hits and when an upturn begins after a recession, their role is usually magnified. Producers and distributors react to a downturn first by running down stocks of goods; when demand recovers, stocks are built up again. But the weight in GDP of stock-change is so small to begin with, that changes in it usually do not loom very large even at cyclical turning-points.

In Russia in 2008-09 they did. Chart 2 illustrates this, comparing the US with Russia with respect to the contributions to GDP decline of the different demand end-uses. The run-down in stocks has its expected, perceptible negative role in the US case, but that role is still modest. In Russia it is the largest single source of the fall in aggregate demand, exceeding even the effect of the fall in fixed investment.

Chart 2. The curious role of inventory declines in the Russian crisis: US and Russia GDP by end-use in 2009 (% change year-on-year)



Notes: C = private consumption; Fixed I = gross fixed capital formation; Stock Δ = change in inventories of goods; G = government spending; Net X = net exports of goods and services. The columns represent the contribution of each end-use to the overall change in GDP. (The direct net effect of changes in government spending in the US was, surprisingly, negligibly small.)

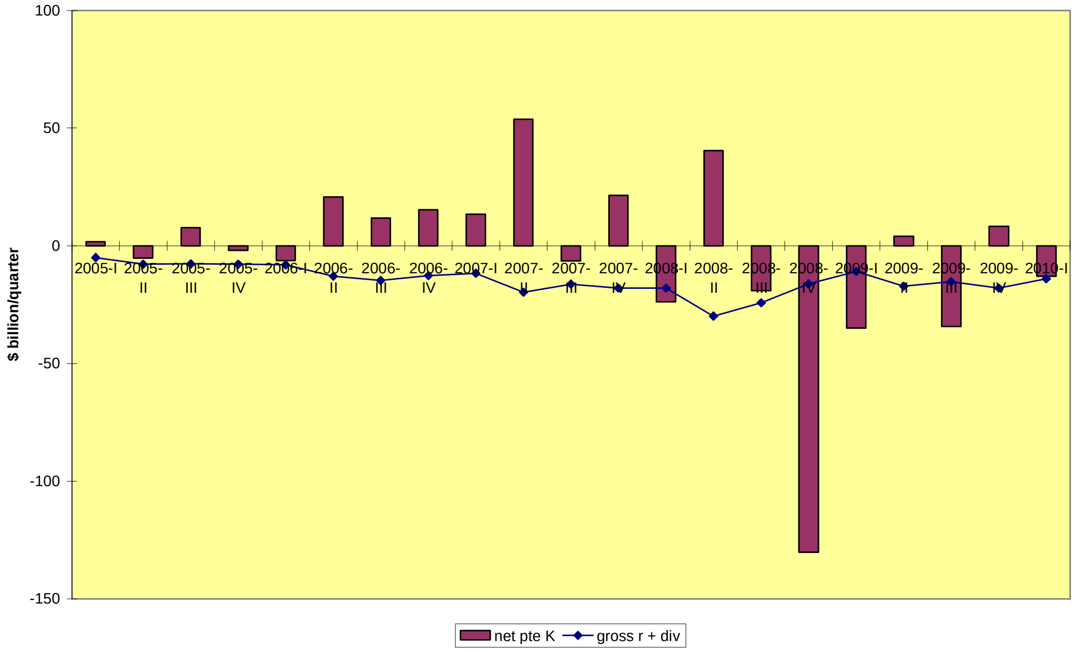
Sources: US Dept. of Commerce Bureau of Economic Analysis; Rosstat, data as at January or February 2010.

Why should this be? Evidently businesspeople observed falling oil prices and worried about the management of corporate foreign debt in the face of a weakening rouble. They therefore saw reasons to move funds out of Russia. But, given the size of the country's reserves and its strong sovereign credit rating, not to mention the preceding decade of rapid growth and the modest domestic debt of households and companies, why run down inventories so precipitously? The prominence of inventory changes has been noted by Russian commentators,[6] but the only explanation I have seen offered by them is that the Russian business community lacks experience of cyclical changes, and first over-stocked and then rather hectically de-stocked.

My conjecture is that the behaviour of Russian and foreign business in Russia reflects, not ignorance of cycles, but an all-too-acute apprehension about the behaviour in adversity of the Russian state. It is generally understood that property rights are precarious and the rules of the game about state intervention are fluid. The general flight from risk in emerging markets was in the Russian case a high-speed stampede for the exits, and for good reason. This was not solely, and perhaps not primarily, a stampede of foreigners. Russian big business, which uses offshore holding companies to collect profits for the main owners, has its own exits, and apparently made for them.

In other words, the oil price and the capital market panic sent signals that were, in Russia's case, as amplified as a performance by Black Sabbath. This shows up in the balance of payments, especially in 2008. Chart 3 shows two developments in 2008: the dramatic net capital outflow in the fourth quarter and, less dramatically but intriguingly, the earlier peak in interest and dividends paid abroad by Russian banks and companies.

Chart 3. Russian private sector in the balance of payments: net private capital flows in or out and gross bank +company payments of interest and dividends, 2005-10 Q1, quarterly ($bn).



Notes: Net private capital flows are the net changes in assets and liabilities of banks and companies, including state-controlled concerns, plus net errors and omissions but not including the CBR estimate of capital flight; the measure of interest and dividends paid abroad by Russian banks and companies is the gross payment abroad, *i.e.*, is not net of equivalent payments into Russia. 2009-IV data are preliminary estimates.

Source: Author's calculations from Central Bank of Russia data (www.cbr.ru).

The outflow of funds may have been so large as to squeeze working capital and enforce inventory cuts over and above what would otherwise have been observed.

Nikita Krichevskii has argued from an analysis of company accounts that in 2008-09 many large Russian firms paid dividends abroad to their owners' holding companies that were close in size, or even exceeded, the available profits.[7]

If this conjecture is on the right lines, we have a link between the otherwise puzzling scale of Russia's recession and the notoriously poor Russian business environment. (In the World Bank's Ease of Doing Business rankings covering 2008-09, Russia comes 120th out of 183 countries.[8])

I suggest there is an asymmetric assessment of country risk involved. The general unpredictability of the Russian business environment is perfectly well known even in good times. However, when the economy has been growing fast and the benefits of growth have been shared between workers, entrepreneurs and corrupt office-holders, the business community makes its profits and takes the risk in stride. When a downturn begins, the unpredictability of the state looms larger in everybody's perceptions; fears of expropriation soar. Foreign portfolio investors and lenders do their best to get out of the country and Russian businesspeople do the same – in the form of capital flight and dividend flows to offshore holding companies. For Russia, unlike many other economies, the issue in 2008-2010 has been not de-leveraging so much as relocation.

The corollary, however, is encouraging: all concerned will presumably return to business as usual once a recovery is under way. But that is not necessarily a recipe for a resumption of rapid growth. It seems reasonable to say that if the business environment were stronger, economic performance would be better, in good and bad times alike. Will conditions after the crisis be such that business as usual will once again allow growth at 7% or so?

Russia's development after the output fall of 2008-09 depends in part, obviously, on what happens in the rest of the world. For a start, exports of goods and services accounted for 30% of GDP before the crisis, making the country more trade-dependent than Brazil or India though less trade-dependent than China.[9] And foreign debt is at least a short-term problem. The state had minimal foreign debt, but the development of leading Russian corporations had depended quite strongly on cheap loans denominated in foreign currencies.[10]

If the rest of the world in general, and Europe in particular (accounting for more than half of Russian exports) revive only slowly and 'de-leveraging' remains a powerful influence, those external stimuli will be reduced.

As long as short-term corporate debt can be managed, and the successful Rusal share issue in Hong Kong suggests it can, the immediate turnaround should look quite healthy. If recovery really did begin in late 2009 and early 2010, year-on-year growth in 2010 could be quite robust: there will be a combination of re-stocking, some recovery in fixed investment and the arithmetical effect of the low base in 2009. This prospect looks likely to justify the Ministry of Economic Development's (MinEkon's) 2010 GDP forecast of +3.1%, or the EBRD's 2010 projection of 3.5-4.0%.[11] In fact, anything up to 5% looked plausible in early 2010. The real test of the effects of more favourable global conditions would come in 2011 and beyond.

Let us assume for the purpose of argument that over the next 5-10 years the flow of foreign lending to Russian companies will be less than in 2005-08; that oil prices will not – brief fluctuations apart – surge again towards $150 a barrel and above[12]; and that the growth of Russia's main market, Europe, will be slower than before. How readily can Russia adjust to this modified environment? Can it move to more self-propelled growth without a radical reform of institutions?

The answer depends chiefly on what the supply-side conditions for Russian growth will be in the absence of major reform. The first step is to assess Russia's medium-term growth potential with unchanged institutions. That provides an indication of the likely strength of pressures towards reform.

Russian economic prospects: the supply side

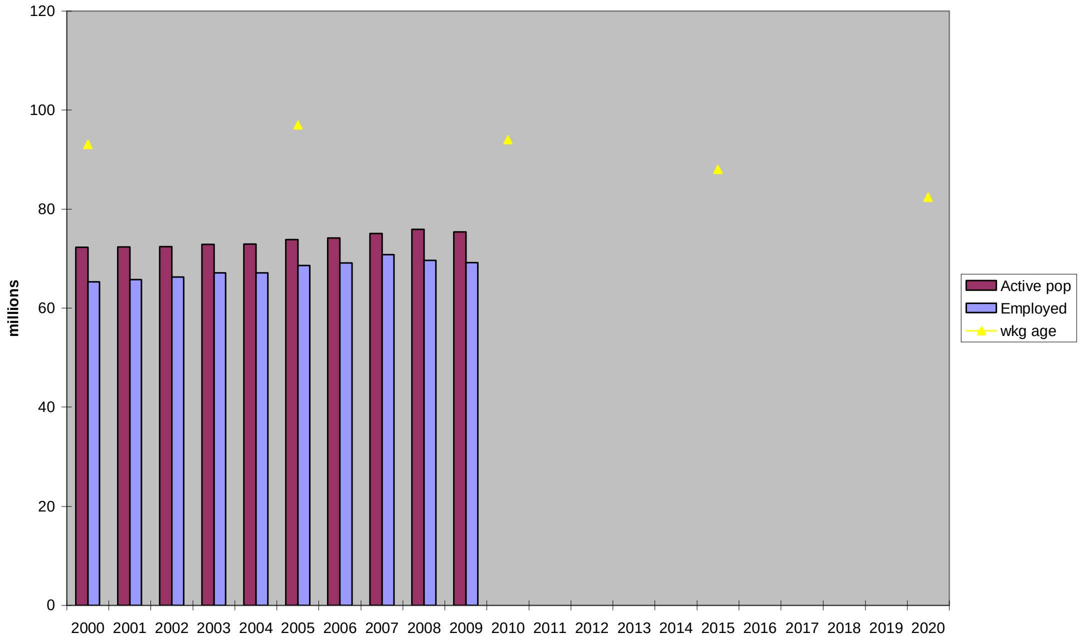
I have presented data elsewhere on the supply-side influences facilitating Russian growth between 1998 and 2008.[13] That boom was made possible by a growing labour force; an initially large margin of unemployed workers; an initially large margin of under-used capacity; considerable scope for the re-allocation of labour and capital from less to more productive uses; and some new investment . In short, there were growing inputs available (capital in use by about 4% a year and employment by about 1% a year), along with the possibility of increased productivity through quite large re-allocations of those growing inputs.

A simple growth accounting exercise suggests that the 7% trend rate of growth that Russia achieved cannot be explained away by the mere growth of capital and labour in use. Perhaps three-quarters of Russia's inter-crisis output growth can be ascribed to some combination of resource reallocation between different lines of production, improved labour and management skills in given lines of production and technological progress in (again) given lines of production.[14]

Will the situation on the supply side be equally favourable in 2010-20? Some uptake of under-used labour and capital will occur again in the recovery from the current crisis, but it will not be on anything like the scale that was possible after 1998. Then output was not much more than half the 1989 level. There is no reason to expect the growth of capital stock after 2010 to be more than the 3% annual average of the inter-crisis period.[15]

The labour force is likely to be falling, not growing. In 1998-2008 the working-age population, and not just the numbers employed, grew even while the total population was declining. According to Rosstat the working-age population started to decline in 2007. The numbers of young people who will enter the labour force (migration apart) between 2010 and 2020 are already known to a high degree of precision. They will fall like a stone. Overall the working-age population will decline, according to UN estimates, by about 1.2% a year. Chart 4 illustrates the prospect.

Chart 4. Russia: working-age population, economically active population and employment, 2000-2020 projected (millions)



Notes: Working-age population is the population aged between 15 and 60; the economically active population consists of those (including pensioners) who are either employed or actively seeking work, as estimated from labour force surveys, usually in November.

Sources: For working-age population, UN Economic and Social Affairs Population Division (http://esa.un.org/unpp); for economically active and employed, Rosstat (www.gks.ru).

The numbers employed are not rigidly determined by demographics. Changes in pension age (at present still 55 for women and 60 for men), changes in the propensity of pensioners to seek paid employment, net immigration of job-seekers, changes in the unemployment rate – all could have an influence. The chart therefore shows projected numbers only for the variable we can be pretty sure of: working-age population on present legislation. They strongly suggest that the economically-active population and the numbers actually in employment, cyclical effects aside, will tend to decrease.

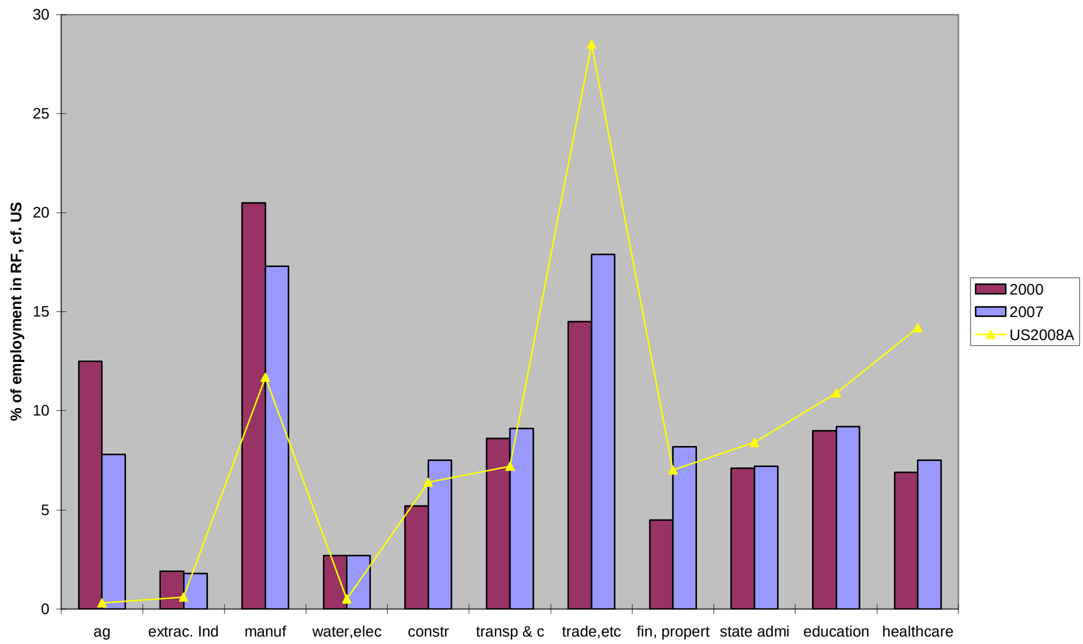
An increase in the age at which the state pension becomes available could help with labour supplies. On the other hand, it would be unpopular, and quite a high proportion of pension-age people work anyway. In June 2010 the finance minister, Aleksei Kudrin, said that raising the pension was necessary and should be discussed, but was not currently on the government's agenda.[16] The substantial boost to state pensions from 1 December 2009 and again in 2010 both adds to the fiscal burden during the recovery and reduces the incentive for pensioners to work. The Finance Ministry expects the deficit in the Pension Fund in 2011 (which has to be made up from the federal budget) to be almost R1 trillion in 2011, and rising.[17] Any significant increase in numbers of immigrants, if it were achievable, would be politically sensitive.

It is safe to say that numbers employed are likely to decline, perhaps by about 0.5% a year, in 2011-20. In addition the reduction in numbers of young entrants to the labour force reduces the size of the cohort that is most amenable to training and, in general, to improving the skills of the workforce. It is therefore likely that the rate of improvement in so-called human capital will slow. The dearth of young labour-force entrants will also tend to slow the re-allocation of labour from less to more productive activities, since labour-force entrants are typically more footloose, as well as more trainable.

How much scope is there for further re-allocation of labour and capital between lines of production? There is unquestionably quite a lot: too many Soviet-era engineering and other concerns have poor prospects but still employ people. But it can be argued that the scope for easy reallocation of labour will from 2010 be considerably less than it was in the immediate aftermath of the 1998 crisis.

Chart 5 compares the proportion of employment in 11 different sectors three ways: between Russia in 2000 and 2007 and between the two Russian distributions of labour and that for the US in 2008.[18]

Chart 5. Allocation of employment between industries: Russia 2000 and 2007; US 2008 (% of total employment)



Sources: Rosstat; US Bureau of Labor Statistics.

The shape of the US economy could not of course be held up as a necessary or desirable destination for Russia. But it can serve as a rough-and-ready indicator of the shape of a populous, advanced economy. The shares of labour in different sectors in Russia moved between 2000 and 2007 towards the US shares. Russia still has significantly larger proportions of the workforce in agriculture and in manufacturing, and significantly smaller ones in trade and distribution and in health care. But 2007 Russian shares were not very different from 2008 American shares in construction, in transport and communications, in financial and property services, in state administration and in education. Russia's larger share in extractive industries makes sense for the medium term, at least.

The chart offers no legitimate measure of the scope for productivity-enhancing reallocation of labour. For one thing, there will be scope within as well as between sectors. But it does quite strongly suggest that such reallocation will very likely be less over the next decade or so than it was in the inter-crisis period.

So the labour force will probably be falling, not growing, the capital stock in use will probably be growing more slowly than before the crisis, there will probably be less scope for upgrading skills, and probably also less scope for reallocating resources. It follows that Russian growth in the medium to long term is likely to be less than it was in the pre-crisis period.

What could prevent that outcome? A surge of young immigrants is unlikely. An acceleration of the growth of investment and therefore of the capital stock would seem to require an improvement in the business climate, encouraging more investment.[19] Acceleration in the reallocation of resources and in technological progress in the sense of a more rapid introduction and diffusion of new products and processes would also seem to require an improvement in the business climate. In other words, radical reform, reducing corruption, separating the power elite from business, establishing the independence of the judiciary and making the economy more open and competitive, looks more important to preserving rapid growth than it was in 1998-2008.

How strong would the pressure for reform be? That depends in part on what is understood by policy-makers to be a minimum rate of growth compatible with social stability. This might be quite low. It also depends on whether the slower growth that seems likely would be above or below this ‘emergency’ rate. In earlier work I estimated a plausible growth rate under business as usual at 4.3% a year in 2012-20, but the margin of error around that number is large.[20] My guess is that if that figure is in the right ball-park, both the population and the political elite will be reasonably satisfied, and any pressure to disturb the *status quo* will be easily resisted.

One complication is the political elite’s ambitions to modernise Russia, transforming it into an innovative, ‘knowledge’ economy, preferably before breakfast tomorrow. It is not self-evident, to begin with, that diversification is necessarily desirable. Gaddy and Ickes[21] have argued that Russia’s problem is not its dependence on natural resources but its addiction to using natural-resource rents wastefully. However, the ‘addictive’ practices are unlikely to change in the absence of radical political as well as economic reform, for reasons to be considered in a moment.

We should therefore ask whether, in the absence of radical reform, the Russian people might nonetheless stand to benefit from some version of ‘modernisation’. The conventional liberal wisdom is that they will not. I share that view, but both the modernisation agenda and the relation of reform to diversification are worth considering, before we reach any conclusions about the prospects of reform.

Modernisation and its discontents

There are three very large difficulties about diversification and ‘modernisation’ of the Russian economy: the structure of the Russian economy; the poor business environment, and the weakness of Russian science.

The point about structure is this: it is particularly hard for any economy whose major exports are a cluster of natural-resource-based products to diversify. That seems from casual observation to be the case. There is also a growing body of theory and empirical analysis that may help to account for it.

Part of this is the analysis of 'product space'.[22] The world of trade flows can be mapped as a forest of products. It can be observed that, at the 4-digit level of the SITC commodity classification (775 products), there are patterns in the specialisation of countries. The products form clusters in the sense that countries that export good A are more likely also to export (say) good B than good C, and A and B are in that sense closer to one another than A and C. The mapping of products is based on these empirical measures of 'proximity'. As Hidalgo *et al.* (see note 18) put it: 'Empirically, countries move through the product space by developing goods close to those they currently produce' The most sophisticated goods are located in a densely connected core, which characterises the trade specialisation of the richest countries. Hydrocarbons form a cluster that is associated with relatively high per capita GDP but is located at some distance from the sophisticated core.

Product space analysis does not tell us that a country whose initial strengths are in natural resources cannot diversify; only that it is a difficult position to start from. One implication could be that modernisation or diversification in such countries requires 'industrial policy': a more interventionist approach than might be needed elsewhere.

The Russian leadership from about 2006 onwards has been developing just such an active industrial policy. State-controlled consortia like the United Shipbuilding Corporation and the United Aircraft-building Corporation, together with the controversial 'state corporations' such as Rosnanotekh and Rostekhnologii, have been established as the major instruments of modernisation. A Russian Silicon Valley is to be developed, probably in the Moscow region, with Deputy Head of the Presidential Administration, Vladislav Surkov, apparently as the prime mover.[23] The whole emphasis is top-down.

The approach, however, is not Soviet. Speeches and reports on the modernisation plan also stress the need for co-financing between state and business, the need to involve foreign investors, the need to strengthen education and small business. And practice does indeed include some of these ingredients. Anatolii Chubais, in charge of Rosnanotekh, has set up a venture capital fund with an experienced US partner, and is seeking to encourage small, high-tech start-ups. Under the umbrellas of the various state consortia and state corporations foreign joint ventures continue in titanium (with Boeing), in the Sukhoi Superjet 100 (with Alenia of Italy), in car-making (with everyone), and so on. Some of these initiatives will most probably deliver results.

Skolkovo itself exemplifies the openness to private-sector and foreign involvement in the attempt at modernisation. The foundation (ifond*) running* Skolkovo is headed by the boss of Renova, Viktor Veksel'berg.[24] Cisco has said it will invest $1 bn in Russia's Silicon Valley over ten years; other foreign companies have expressed interest.[25] But the special legal and administrative regime being prepared for Skolkovo is reminiscent of Akademgorodok, not the original Silicon Valley.[26]

Surkov, as ever, expounds the statist approach rather clearly. Competition between many firms is not needed; competition between a few is better; social and political liberalisation is desirable but needs to be gradual; Russia needs a 'consolidated state'.[27] (Yevgenii Yasin, the doyen of Russian liberal economists, commented that talk of a consolidated state reminded him of Mussolini and Franco.[28])

What do Russian liberals say about the state's modernisation project? Their views range all the way from suspicion to scorn. The best summary of the liberal critique is by Yulia Latynina: 'Why is modernization impossible in Russia? Because there can be no nanotechnologies in the Byzantine Empire'.[29]

The liberals assert either that state-led, top-down management of an economy's diversification cannot work anywhere or that at the very least it cannot work in a country with state machinery as weak and corrupt as Russia's. Successful diversification has to come (or at any rate can only come in Russia) from decentralised initiative. That requires an open and competitive economy, with low or no barriers to market entry and exit, secure property rights that can be defended in independent courts, clear and reliable rules of the game for state intervention, and corruption that at least does not extend to police and judicial complicity in theft.[30]

The nature of a viable state industrial policy is open to debate. There might be some room for state initiative, but the liberals are right that the absence of a well-functioning market is a huge handicap. [31]

That is the second difficulty about modernisation in Russia: the country starts not only with an unhelpful industrial structure but also with an unhelpful environment for business. Here is a brief summary of the conventional wisdom about the Russian business environment. To be more precise: it is based on the conventional wisdom about what matters, but also on a very large amount of empirical research.

Table 1. Some World Bank (WB) and World Economic Forum (WEF) rankings of Russia in indicators of the quality of the business environment (n = total number of countries in the ranking)

Scorecard	**RF ranking**	**period covered**	**n**
WB Ease of Doing Business	120	2008-09	183
WB Governance: govt. effectiveness	3rd quartile	2007	212
rule of law	4th quartile	2007	212
WEF financial market sophistication	119	2009	133
WEF ease of trading with	114	2009	121

Note: In the governance rankings the 4th quartile represents the lowest in quality.
Sources: http://www.doingbusiness.org/economyrankings/;
http://www.worldbank.org/wbi/governance/; http://www.weforum.org.

Russian liberal sceptics share the thinking behind these ranking schemes. If a country has poor regulation, lacks independent courts, and has a state machine that has extensive concealed links with business and whose behaviour is hard to predict, the development of small businesses will be handicapped and so will long-term investment, including in research and development. There will not be the confidence in property rights that is needed.

The third impediment to Russian modernisation is the weakness of Russian science and technology. Russia lags Brazil and China, though not India, in the proportion of its manufactured exports that fall into the category of high-tech products.[32] In the international ratings of its universities and in its share of world non-resident patent applications, it lags both India and China. This is not the Russia of Russian leadership perceptions. Table 2 illustrates.

Table 2. The BRICs: university rankings (2009) and patent applications filed other than in own country (2007).

Indicator	Measure	Russia	Brazil	India	China
Patent applics	% world total	0.14	0.13	0.48	0.90
Universities	n in world top 500	4	4	10	11

Notes: Patent applications are based on numbers filed other than in the country of residence of the first-named patentee; author's calculations from WIPO data.
Sources: http://www.wipo.int/ipstats/en/statistics/patents/; http://www.topuniversities.com/world-university-rankings

Russia still has a relatively large number of people engaged in research and development: considerably more per million population than the other BRICs. Why does the army of Russian researchers advance so slowly?

One answer came in 2009 from a group of more than 40 Russian scientists working outside Russia. In September they sent an open letter to the Russian President and Prime Minister, calling for fundamental science in Russia to be rescued from its current state. They described that state as 'catastrophic'. The group, now with over a hundred signatories, followed up in February 2010 with their own ideas on the first step in reform of the administration and finance of basic science.[33] They noted the lack of young scientists in Russia, the demoralisation of researchers and the dearth of cooperation with scientists from other countries. The first part of their rescue plan is based on an acceptance that a country with ambitions for self-improvement needs its own fundamental science, and that only the state will fund basic research.[34] The current situation of Russia is incompatible with the old (i.e., Soviet-era) management of science that still prevails.

The expats argue that the Russian state should set up a network of federal science centres: these must be open to international cooperation, with easy conditions for foreign specialists to work in them, and therefore require a de-bureaucratisation of employment contracts and a simplification of visa requirements. There must also be transparent, open competition for project funding, with international peer review. The idea is not to block the brain drain but to open up to an inflow of brains. The expense required, they claim, is modest.

This is a respectable argument for state initiative. How capable of implementing it the Russian state might be, is an open question. Even a thriving fundamental-science scene in a few years' time, however, would produce economic benefits only if a sizeable part of the population of Russian companies had an appetite for innovation and was prepared to fund applied research, development, testing and introduction of new products and processes. So far, few Russian companies show such an appetite.

At a meeting of the presidential Commission on Modernisation and Technical Development on 11 February 2010, Anatolii Chubais presented a sombre picture of innovation in Russian big business.[35].

He showed that Russian business was spending much less on research and development (R&D) than Chinese business, and had barely increased the amount between the mid-1990s and the late 2000s, whereas Chinese business-sector spending on R&D had risen fast. Hence the lopsided nature of R&D finance in Russia: some 70% from the state budget. This is partly, Chubais said, because most Russian business is in industries which are, across the world, relatively low spenders on R&D (less than 3% of sales).

This is separate from the argument about product space that was mentioned earlier. But it reinforces the observation that if you wanted to develop a knowledge economy somewhere, you wouldn't start in Russia. Chubais, of course, has proposals for ways of tackling the problem. They involve a mix of state initiatives and improvements in the business environment. Is there, then, some middle way between the liberals' recipe of radical systemic reform and the cruder versions of state-led development?

Conclusion: reform, modernisation and politics

The nature of a systemic reform of the economy has been indicated above: institutions would have to change so that the economy was more open[36] and more competitive internally, and business could protect itself from the state, not by deals behind the scenes but by recourse to independent courts.

The liberals believe these changes are necessary if the economy is to develop successfully. Successful development will not come from top-down state projects, least of all if reliance is placed on domestic innovation.[37] But many, perhaps most, Russian liberals also reckon that the wholesale nature of the economic reform they seek requires political liberalisation. Open and rule-governed competition is needed in the polity if it is also to develop in the economy.

Andrei Sharonov, who was deputy minister of economic development and trade until in 2007 he joined Troika Dialog, an investment bank, told the Krasnoyarsk Economic Forum in February 2010 that the present government gives priority to social stability over modernisation and Russian business is happy to earn natural-resource rents, so there is no real demand for modernisation.[38] Earlier, at Davos, his former boss at MinEkon and now head of the state savings bank, German Gref, exploiting his secondary role as a board member of Lukoil, told his audience that, since the Yukos affair, 'the main issue on Lukoil's agenda has been not development but self-preservation'. He then called for more privatisation, starting with the bank he manages.[39]

These are members of the policy-making elite, even if they are outside the statist core that, implicitly, they are criticising. Others, currently more distant from power, such as Yevgenii Yasin (Economy Minister in the mid-1990s) and Sergei Aleksashenko (formerly a first deputy chairman of the central bank) say more or less directly that political liberalisation is a condition of systemic economic reform,[40]

There is, I suggest, one very powerful reason for believing this to be the case. It is reasonably clear that members of the political leadership have concealed stakes in or informal claims upon some of the leading firms in Russia. One does not have to believe the claims made about Putin's hidden wealth[41] to see that corrupt links extend high up in Russian politics. Leading politicians are among the beneficiaries of natural-resource rents. It doesn't follow that they have no objectives beyond personal enrichment; it does follow, however, that open political competition, threatening a loss of office, also threatens a great deal more.

It would take at least a serious and prolonged deterioration in economic conditions to put the rule of the present elite under threat. The ensuing struggle over power and resources would prolong the economic distress that prompted it. For better or worse, the likely economic slowdown does not look capable of provoking unrest on the scale that would produce this outcome.

The conclusion is that neither systemic economic reform nor successful modernisation is likely over the next decade. Growth is likely to be sufficient for social stability to be maintained, while proclaimed grand targets are missed. Missing the grand targets may not disturb anyone unduly. Even participants in the Krasnoyarsk Economic Forum, when asked if they believed in 'modernisation', mostly (52%) said No.[42] But radical reform is desirable, with or without the objective of diversifying the economy. If the modernisation campaign falters and fades, and Russia continues to depend on natural-resource revenues, a reformed Russia will make better use of those revenues than an unreformed Russia.

The practical question is whether modest and partial reform, perhaps somewhat strengthening the courts and opening up more of the economy to foreign direct investment, would help the economy appreciably. Some movement in that direction could be observed in early 2010. Perhaps the clearest example was Medvedev's announcement of a drastic reduction in the number of enterprises deemed 'strategic;, and therefore open only to restricted involvement by foreigners.[43]

Partial reform did not help the Soviet economy after 1986: rather the contrary. In those days, however, partial reform meant piecemeal tinkering with an internally consistent set of arrangements. Today Russia's economic institutions are looser, baggier and internally more diverse. This time there might just be more scope for partial reform to do some good.

[1] www.gks.ru/free_doc/new_site/vvp/tab7.xls, last accessed 28 June 2010; comparable data for other countries from http://imf.org/external/pubs/ft/weo/2010/update/01/index.htm, last accessed 28 June 2010.

[2] Calculated from debt data of the Central Bank of Russia, http://www.cbr.ru/statistics/print.aspx?file=credit_statistics/debt_est.htm,

[3] Klepto-Putinism, to the harsher critics.

[4] http://www.cbr.ru/statistics/print.aspx?file=credit_statistics/debt_an_09.htm&pid=svs&sid=vdRF_nr , accessed 28 June 2010.

[5] Author's estimate. For more detail see Hanson, 'Russia to 2020,' Finmeccanica Occasional Paper, Rome, November 2009, pp. 28-30.

[6] See Ol'ga Kuvshinova, 'Spad pro zapas,' *Vedomosti*, 2 October 2009, and references there to analysts' interpretations.

[7] Nikita Krichevskii, *Postpikalevskaya Rossiya: novaya politiko-ekonomicheskaya real'nost'*, Moscow, 2009. His examples are mainly metals companies, plus some retail chains. The work may have been commissioned to get at somebody (Deripaska?), but the numbers cited are check-able.

[8] http://www.doingbusiness.org/EconomyRankings/ , accessed 15 March 2010.

[9] World Bank, World Development Indicators for 2007.

[10] State debt here is used in the sense of government and central bank. A large part of bank and corporate debt was owed by state-controlled concerns.

[11] Oxford Analytica Daily Brief, 7 and 26 January 2010, respectively.

[12] The Energy Information Agency (EIA) produced in late 2009 its projections for the oil market in the long term. Its reference scenario puts the average real oil price (in 2009 prices) at an average of $95 per barrel in 2010-30, as cited by Clifford G. Gaddy and Barry W. Ickes, 'Russia after the Global Financial Crisis,' *Eurasian Geography and Economics*, vol. 51 no. 3 (2010), pp. 281-311 (pp. 302-03).

[13] Hanson, 'Russia to 2020', pp.8-12.

[14] *Ibid*., calculations on p. 11. The technological upgrading would be to a considerable extent linked with inward foreign direct investment and the import of machinery – the latter coming to about 6% of GDP or about 27% of all fixed investment in 2008, and making up 76% of all equipment investment/

[15] Capital stock in use grew faster than this in 1998-2008, but that was because the re-utilisation of under-used capacity amounted to a substantial addition to the growth of the total capital stock.

[16] Yevgeniya Pis'mennaya, Alyena Chechel, @Umryem do pensii,' *Vedomosti*, 21 June 2010.

[17] *Ibid.*

[18] This, with some presentational differences, is Chart 4 in Hanson, 'Russia to 2020'. The (fairly high) comparability of the data is discussed there. Note that the US has proportionally more bureaucrats than Russia.

[19] At 22% in 2008, the share of fixed investment in GDP in Russia is low for a catching-up country.

[20] See Hanson, 'Russia to 2020', pp. 44-6.

[21] *Op. cit.* in note 12.

[22] See http://chidalgo.com/productspace/papers.htm, where among others one can read a key paper: C.A. Hidalgo, B. Klinger, A.-L. Barabási, R. Hausmann, 'The Product Space Conditions the Development of Nations,' *Science*, vol. 317 (27 July 2007), pp. 482-7 and supplementary website material.

[23] Maksim Glikin, Natal'ya Kostenko, '<<Chudo vozmozhno>> -- Vladislav Surkov, pervyi zamrukovoditel'ya administratsii prezidenta, zampredsedatel'ya kommissii po modernizatsii', *Vedomosti*, 15 February 2010.

[24] Glikin and Kostenko, 'Nalogi otmenyayutsya,' *Vedomosti*, 20 April 2010.

[25] Anastasiya Golitsyna, Natal'ya Kostenko, 'Milliarda ne zhalko,' *Vedomosti*, 24 June 2010.

[26] *Loc. cit.* in note 23

[27] *Ibid.*.

[28] *Grani.ru*, 15 February 2010, in a collection of liberal comments under the heading, 'Elementarnyi. Innovatson'. (The pun works better in Russian.)

[29] *Ekho Moskvy* radio, 10 October 2009.

[30] The best-documented example of such complicity is the case of Hermitage Capital Management. See 'Testimony of William Browder, CEO, Hermitage Capital Management,' (US) Commission on Security and Cooperation in Europe, 23 June 2009.

[31] There is of course some competition – varying by industry – in Russia. But it is notable that two 2009 studies concluded that productivity levels were held back by a poor regulatory environment that hindered competition: McKinsey Global Institute, *Lean Russia. Sustaining economic growth through*

improved productivity, McKinsey, 2009; *OECD Economic Surveys. Russian Federation*, vol. 2009/6,, Paris: OECD, 2009.

[32] Only 6.9% in 2007. See J.M. Cooper, 'Russia as a Populous Emerging Economy: A Comparative Perspective,', CREES, University of Birmingham, 2009.

[33] http://www.hep.soton.ac.uk/-belyaev/open_letter , accessed 10 December 2009; Andrei Starinets *et al*., 'Reforma nauki: s chego nachat',' *Vedomosti*, 18 February 2010.

[34] The findings of fundamental science are available to all (fundamental science is 'papyrocentric' while commercially-applicable research is 'papyrophobic') but a country that is backward in basic science will lack the trained specialists who can develop for themselves or copy or otherwise exploit the applied work of others. That is how the utilitarian argument for state funding of fundamental science is usually framed.

[35] http://www.rosnano.ru/Post.aspx/Show/25035, accessed 15 March 2010. I am grateful to Julian Cooper to drawing my attention to this presentation.

[36] Russia has quite a high ratio of trade to GDP and tariff rates that are not especially high, but non-tariff barriers, mainly in the form of corrupt and ineffective administration, are high. In the Ease of Doing Business rankings for 2008-09 (see Table 1), Russia's ranking for trading across borders (from within the country) is 162nd out of 183; while the difficulties of trading with Russia from outside are indicated by the WEF ranking in Table 1: 114 out of 121. And the law on foreign investment in strategic sectors is potentially highly restrictive.

[37] The would-be state modernisers have taken this last point on board. Surkov now distinguishes, rightly, between modernisation in the sense of catching up with leading countries' technologies and productivity levels, where technology imports and learning from abroad are crucial, and innovation in the sense of creating technologies that are new to the whole planet. Glikin and Mazneva, '<<Chudo vozmozhno>>…'

[38] Svetlana Ivanova, 'Sharonov dal ischerpivayushchii otvet na vopros, pochemu modernozatsii v Rossii ne budet,' *Vedomosti*, 12 February 2010.

[39] Gleb Bryanski, 'Fear, uncertainty cast pall over Russian business,' Reuters, 31 January 2010. Two weeks later Chubais was impressing his President with Lukoil's (and TNK-BP's) better performance in 2009 than those of the two main state oil companies – and also calling for more privatisation.

[40] Yasin has been quoted above (note 21). See also Aleksashenko, 'Kuda katitsya strana: Chetyre stsenariya,' *Vedomosti*, 13 August 2009.

[41] Indeed one shouldn't believe them, since public evidence is lacking. For the claims see Vladislav Belkovskii and Vladimir Golyshev, *Biznes Vladimira Putina*, Ekaterinburg: Ul'tra.Kultura, 2006.

[42] Tat'yana Lisova, 'Shuvalov: <<Lyudi ne slishat, chto govorit vlast'>>,' *Vedomosti*, 12 february 2010.

[43] Elizaveta Osetinskaya, 'Medvedev nazval prakticheskie shagi k modernizatsii,' *Vedomosti*, 18 June 2010.