Center for Social and Economic Research

Key Macroeconomic Issues Related to CIS Energy Sectors

Economic Aspects of the Energy Sector in CIS Countries
(CASE for DG ECFIN/D/2007/005)

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Intro

- Presentation based on ch4 of the report ”The economic aspects of the energy sector in CIS countries”, Economic Papers no. 327, June 2008 (http://ec.europa.eu/economy_finance/publications)

- Joint work with:
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- Selection of topics
Outline

- Resource-curse or resource-blessing: CIS perspective
- Dutch disease effects?
- Monetary management
- Fiscal management
- Quasi-fiscal roles
- Conclusion
Are energy resources good for growth?

- International evidence: mixed, rather pointing to negative effects on long-term development ("resource curse" hypothesis)
- Possible mechanisms: volatility of oil prices, Dutch disease, deterioration of political systems & state institutions, negative political economy effects, under-investment in human capital
Are energy resources good for growth?

Even if it exists, a "resource curse" is not a destiny; policies to mitigate it include:
- appropriate fiscal framework
- careful support for non-energy sectors of the economy
- investment in human and physical capital
- avoiding excessive income inequalities
- strengthening the links between government and society and other steps supporting democratic mechanisms and a system of checks and balances

Long-term and systematic reform efforts crucial for all the above
Energy resources and CIS growth? [1]

- So far, energy-rich CIS countries performing strongly (e.g. relative to CIS average)
- Conclusion from econometric analysis: oil exports appear to be **positively** linked to growth, in particular in recent years (coinciding with major rises in international oil prices); the effects in the early transition period (early 1990s) may have been negative
- Positive or at worst neutral effects so far in CIS: will this last?
- Reform progress (and outlook) can provide hints
Energy resources and CIS growth? [2]

- EBRD TI: (average for „advanced” reforms) – mixed, somewhat optimistic picture; Russia and Kazakhstan do much better than CIS average

- World Bank’s Doing business – similar picture
- „Governance Matters” measures of effectiveness of government – similar picture
On „democratic” reforms (difficult to measure!) – slightly less optimistic picture: energy-rich CIS countries rather below CIS average

Percentile rank of CIS countries on „voice and accountability” measure from Governance Matters 2007 (Kaufmann, Kraay, and Mastruzzi)
Dutch disease

- One important potential channel hampering development prospects of countries experiencing resource booms (Netherlands in 1970s)
- Works through changes in relative prices and exchange rate appreciation, leading to declining competitiveness of the tradable sector, that in turn brings about a decline in output and employment, and „deindustrialisation”
Symptoms of a commodity boom

- 1. Rise in commodity prices
- 2. Increase in investment in the commodity sector
- 3. Resource movement effect
  - increase in real wages in the commodity sector →
  - increase (decrease) in employment in commodity (manufacturing, services) sectors
- 4. Changes in the relative price of non-tradables
  - Resource movement effect
  - wage equalisation: changes in nominal wages in other sectors led by wage increases in a commodity sector
  - spending effect
  - Balassa-Samuelson effect
- 5. Real exchange rate (RER) effects
  - 5a. Due to the relative price of non-tradables – RER based on the CPI
  - 5b. Due to the relative price of tradables – RER based on the PPI
  - 5c. Due to a nominal appreciation
- 6. Output and employment declines in manufacturing
Dutch disease in CIS countries: evidence

- Difficult to trace – numerous other forces at play that may be giving similar observable results:
  - Changes in sectoral allocation of labour & capital – also due to restructuring process taking place in all the CIS economies (correcting over-industrialisation)
  - RER appreciation – also correction of initial currency under-valuation (especially after the 1998-1999 series of financial crises) and other factors, e.g. the Balassa-Samuelson effect

- Econometric analysis reveals rather weak signs potentially indicating Dutch disease:
  - Oil prices do cause (with a 1-2 years lag) a nominal and real appreciation in CIS countries; but
  - Relative prices (nontradables relative to tradables) go the other way (decline)
Energy resources and CIS development outlook - conclusion

- Too early to tell if energy resources will be a curse or a blessing for the region (or separate countries)
- Dutch disease effects rather weak so far
- There are several cautiously optimistic signals
- A lot (most?) will depend on domestic policies

... which is leading us to next parts of this presentation
Energy & monetary policy challenges

- CIS-wide disinflation during 2000s…
- …but limited success in most cases with inflation still relatively high (5-10%)
- More recently – rising inflationary pressure and high inflation (above 10% in 11 CIS countries at end-2007, close to 20% in Azerbaijan and Kazakhstan)
- Diverse sources of inflationary pressure: global energy and food prices, USD depreciation (with anchoring to USD of some CIS currencies), rapid growth of international reserves contributing to monetary expansion, etc.
- … some of which are related to energy price surge and high and rising role of energy (and other commodities) in CIS exports:
  - balance of payments surplus and rapidly accumulated international reserves - largely due to the energy and commodity booms that have benefited several CIS economies
Monetary policy response?

- Little success in addressing the new challenges by CIS central banks
- Too strong focus on resisting real and nominal exchange rate appreciation
- Too little focus on disinflation
- Popularity of relying on (informal) USD anchor in exchange rate strategies proved pro-inflationary, especially in the most recent period.
- Global inflationary pressures are unlikely to cease in the near future
- Thus – need to re-evaluate monetary policy strategies in CIS

Options:
- Stronger pegs to other currencies with one-off revaluation?
- DIT?
- numerous pros and cons, the choice is far from trivial
Energy & fiscal policies – the challenge

- Energy-related fiscal revenues very important (Fig. Oil revenues as a share of general government revenues)

- ...but can be extremely volatile
- How to avoid excessive spending in good times and save to be able to survive during worse times?
- Complications: oil price trends uncertain; what is the „normal” or „average” price? Politically difficult to sustain pressure on „sharing the benefits of oil boom”
Energy & fiscal policies – lessons from past oil windfalls (what should have been done differently)

- spending levels should have been adjusted to sharp rises in oil income far more cautiously than they actually were;
- more attention should have been given to building political support for large savings abroad;
- a spending policy should have been based on less than the expected price trend, as costs of over optimistic projections proved far greater than the costs of over cautious ones;
- spending volatility should have been avoided;
- public expenditure projects should have been subject to more rigorous appraisal that took more complete account of potential risks;
- oil income should have been used, to a greater extent to finance improvements in public administration (for example non-oil tax system)

based on Gelb et al. (1988)
Energy & fiscal policies – situation in CIS

- Much better record than on monetary front
- Kazakhstan and Russia appear to be doing fine here. Problems in Azerbaijan (and probably in Turkmenistan and Uzbekistan).

Fig. Spending and saving out of oil and gas revenues (as percent of non-oil GDP)

- Azerbaijan
- Kazakhstan
- Russia
Energy & fiscal policies – situation in CIS [2]

- Oil savings as a share of oil revenues (2003-2005) – Kazakhstan and Russia doing better than most other oil producing countries
Non-oil deficits as a share of non-oil GDP (total GDP in Russia)
Azerbaijan – much higher volatility of fiscal policies and pro-cyclical spending patterns

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<th>AZ</th>
<th>KA</th>
<th>RU</th>
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<tbody>
<tr>
<td>Standard deviation of non-oil deficit</td>
<td>12.6</td>
<td>1.3</td>
<td>0.9</td>
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<tr>
<td>Correlation: real growth rates of expenditure and oil revenues</td>
<td>0.97</td>
<td>-0.13</td>
<td>0.34</td>
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Energy & fiscal policies – outlook

- Important role of fiscal institutions underpinning oil wealth management – (oil funds)
  - Recent changes in Russia (split into Reserve Fund and National Welfare Fund): for better?
- Will politicians avoid temptation to spend more out of oil windfall?
Quasi Fiscal Roles

- IMF *Manual on Fiscal Transparency* defines QFA as operations that result in a net transfer of public resources through nonbudget channels.

- IMF policy papers define QFA as operations that “could in principal be duplicated by specific budgetary measures in the form of an explicit tax, subsidy, or other direct expenditure”.

Subcomponents of QFA

- setting tariffs below cost recovery level;
- tolerate the build-up of arrears to energy companies as a result of non-payments or payments are not being made in full;
- excessive losses or theft;
- non-cash payments and government guaranteed borrowing.
Macroeconomic implications of QFA

- Inadequate prices on energy products cut the incentives for their efficient use and lead to wasteful consumption;
- Improper energy prices do not send the correct signals to enterprises undermining their incentives to restructure;
- Implicit subsidies provided through mispricing support loss-making enterprises and thus take away public resources from priority needs;
- Maintaining administratively set energy prices at the level that does not offset the recovery costs result in under-investments and depletion of the capital stock in the energy sector;
- Cross subsidization at the expense of industrial consumers distorts the price structure in the whole and erodes competitiveness of enterprises in external markets.
- Subsidies, that government may have to extend to the energy sector in order to resolve the problem with payment arrears and heavy debt accumulation would typically increase the vulnerability of the budget.
QFA in CIS: an overview

- High level of QFAs: Azerbaijan (9% of GDP), Tajikistan (22% of GDP), Uzbekistan (19% of GDP)
- Virtually eliminated QFAs: Armenia
- Other countries: Belarus (2.4-3.4% of GDP), Kyrgyzstan (5.4% of GDP), Moldova (4% of GDP), Ukraine (2.6% of GDP), Russia (QFAs decline ???)
Conclusion

- Energy resource wealth creates challenges for macroeconomic policies
- Addressing these challenges largely determines if natural resources turn into a curse or a blessing for countries
- The assessment of CIS response so far:
  - Quite good on average
  - Better on fiscal than on monetary policy front
  - Kazakhstan and Russia doing much better than Azerbaijan
  - Risk factors on the horizon, so continued effort is needed