



Long-Run Growth and Competitiveness in Transition Economies: An Unfinished Agenda

Erik Berglof, EBRD

**with contributions from P. Aghion, S. Commander, H. Harmgart, R. Hausmann,
E. Kelly, B. Klinger, N. Weisshaar, and J. Zettelmeyer**



Outline

Introduction

Competition

Education

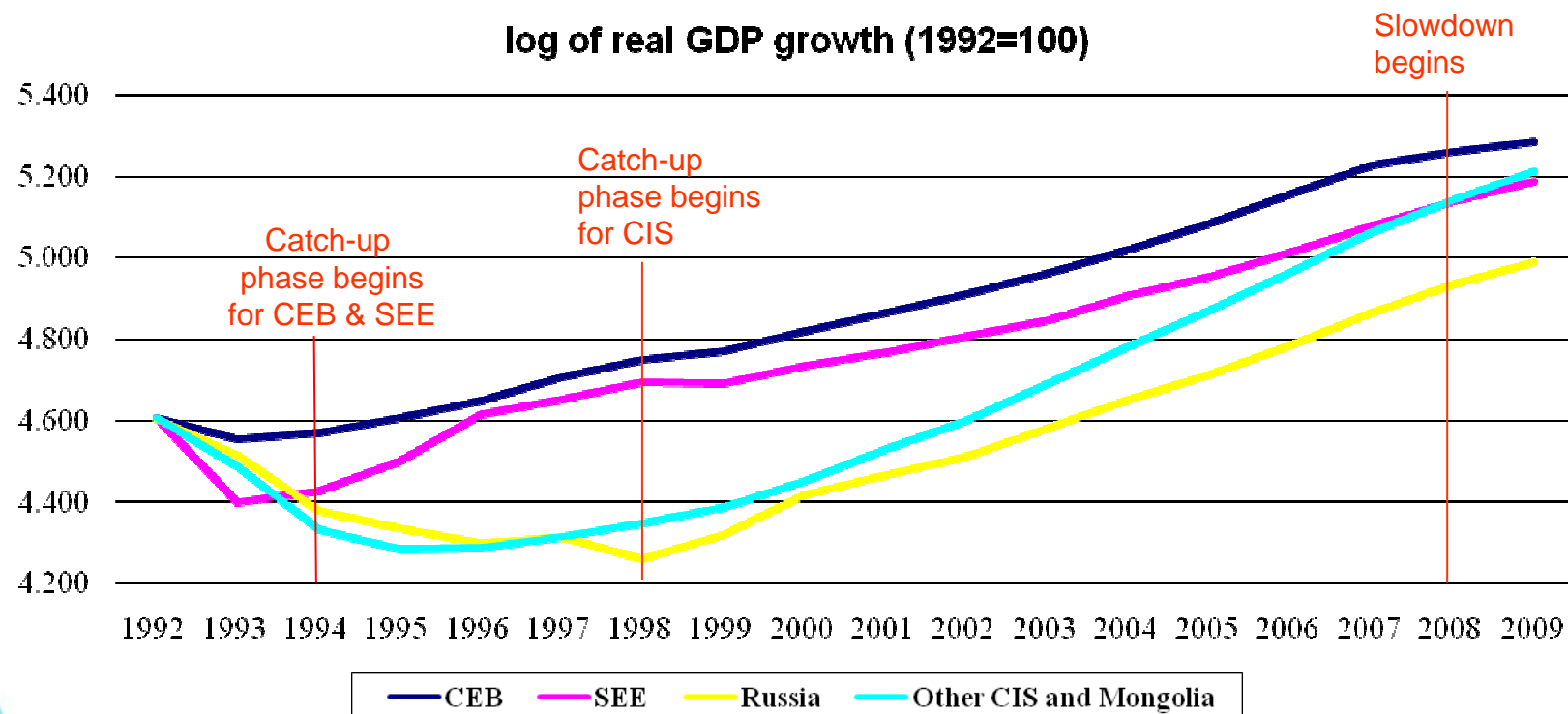
Product mix

Policy implications



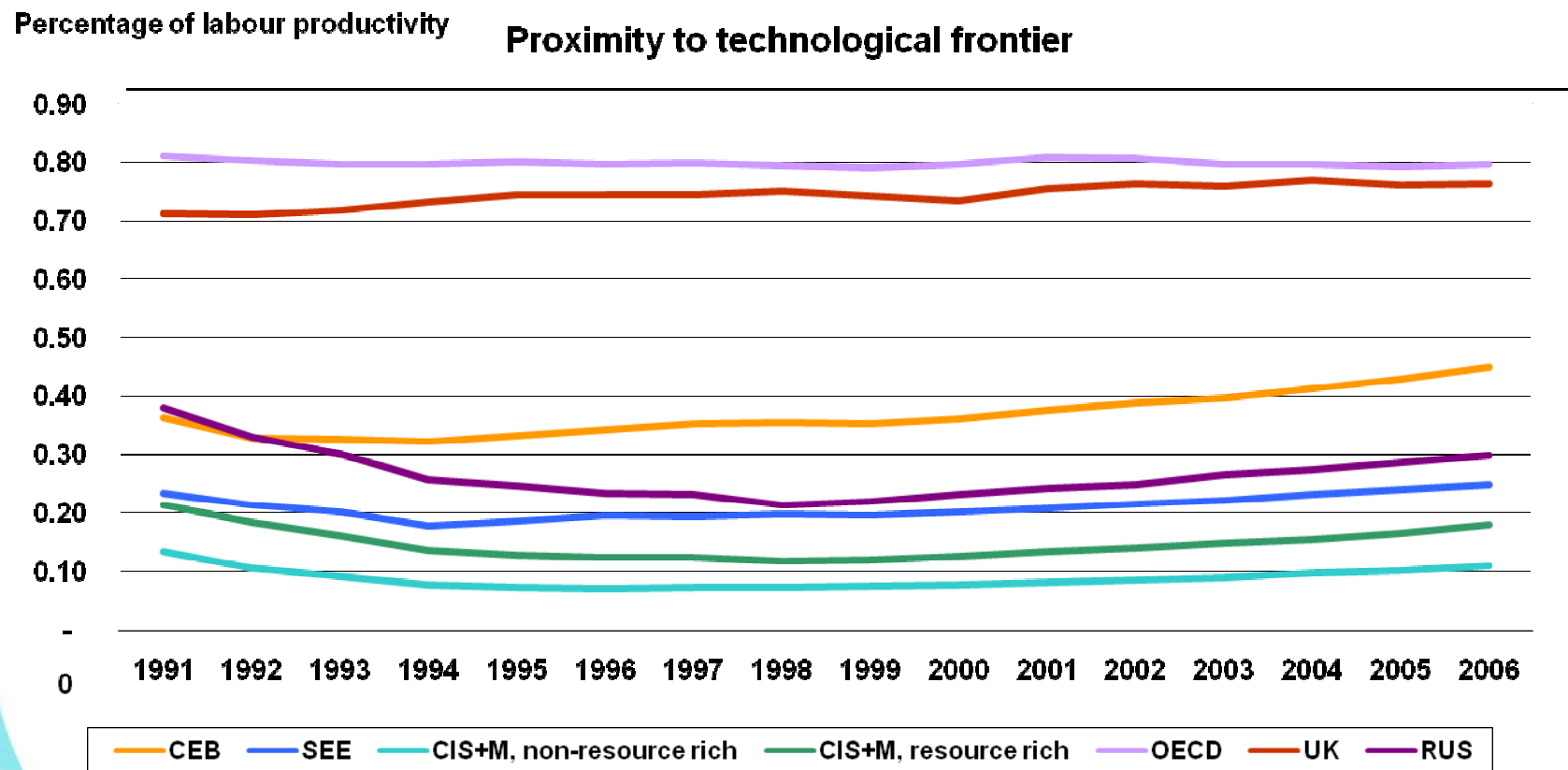
Entering a third growth phase

- Weighted average growth EBRD29, 2004-2007: 6.8%
- Medium-term 2013 growth projections (IMF): 5.3%



Large gaps in productivity remain

- Labor productivity is 10-40 percent of United States



Continued high growth involves both short run and longer run challenges

- **Short run** challenge: managing the world economic and financial crisis and achieving a soft landing
- **Longer run** challenge: removing constraints to long run growth that are likely to become binding after the catch-up phase is over



Constraints to growth vary across countries, but involve common factors

- **Competition:** transition from state to market has often failed to create competitive structures
- **Education:** large gaps in quality and coverage remain
- **Infrastructure:** significant gaps, particularly outside CEB
- **Institutions:** corruption and low quality of government services persist
- **Product mix:** lack of diversification and commodity dependence in some countries
- **Financial deepening:** significant progress in recent years, but risk of financial disintermediation due to crisis



This presentation focuses competition, education, and the product mix

- Amenable to policy reforms
 - Regulatory institutions
 - Legal framework
 - Spending on education and innovation
 - (Perhaps) industrial policy
- Pressing concerns for most transition countries





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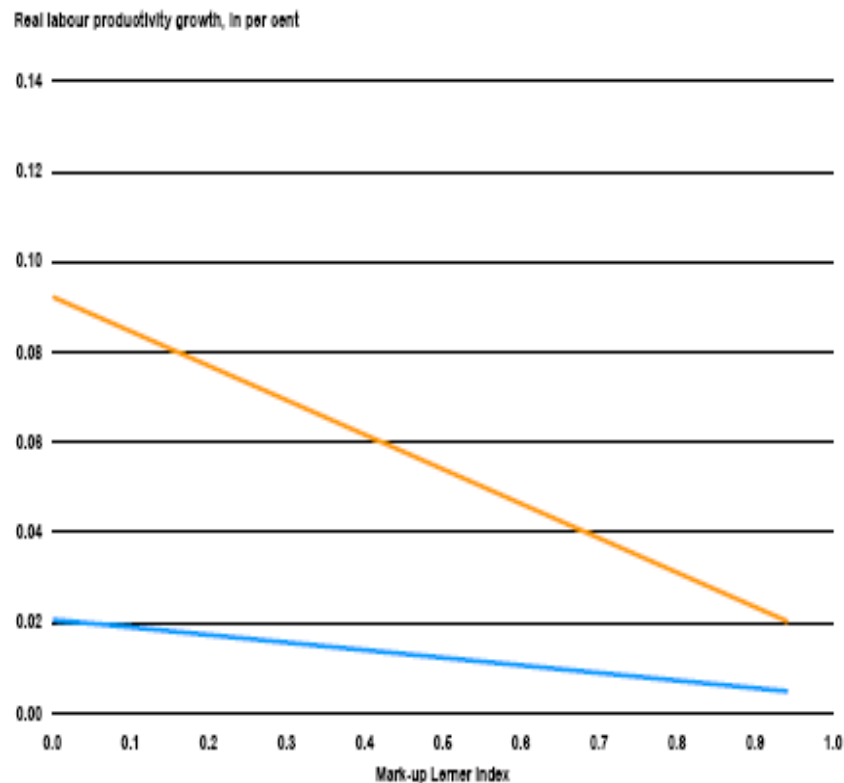
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Competition drives productivity growth

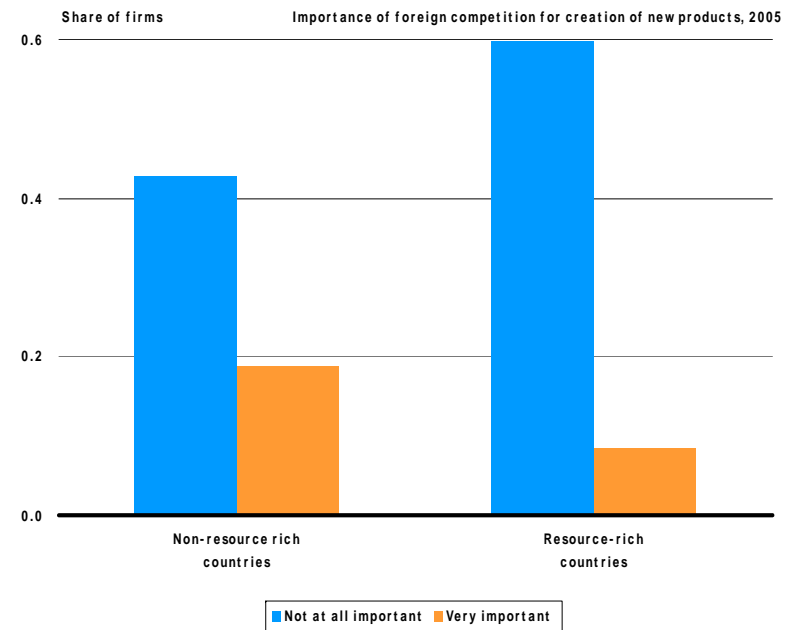
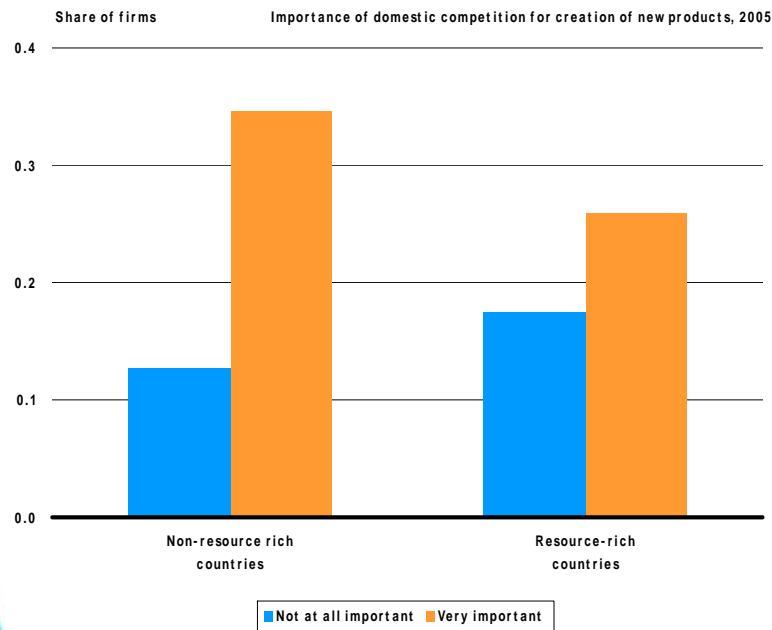


- Strong link between product market competition and growth
- High mark-ups (low level of competition) are associated with low level of labour market productivity
- Relationship even more pronounced for transition countries



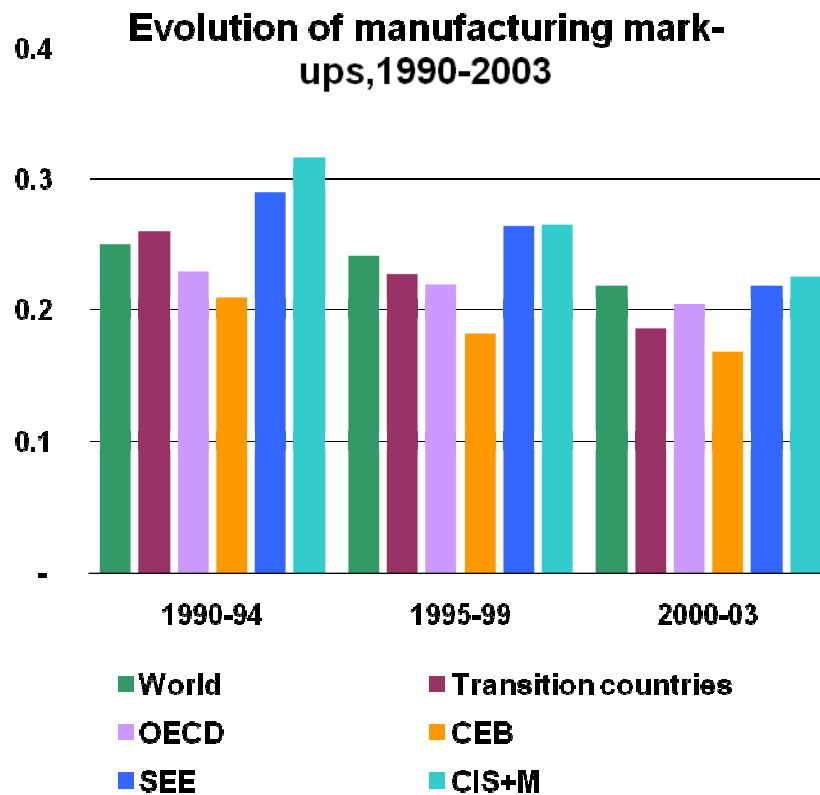
Domestic competition is closely related to product innovation

- Firms view domestic competition as more important than foreign competition for product innovation
- More firms in non-resource rich country say competition important for innovation



Competition increased in transition region

Lerner Index value

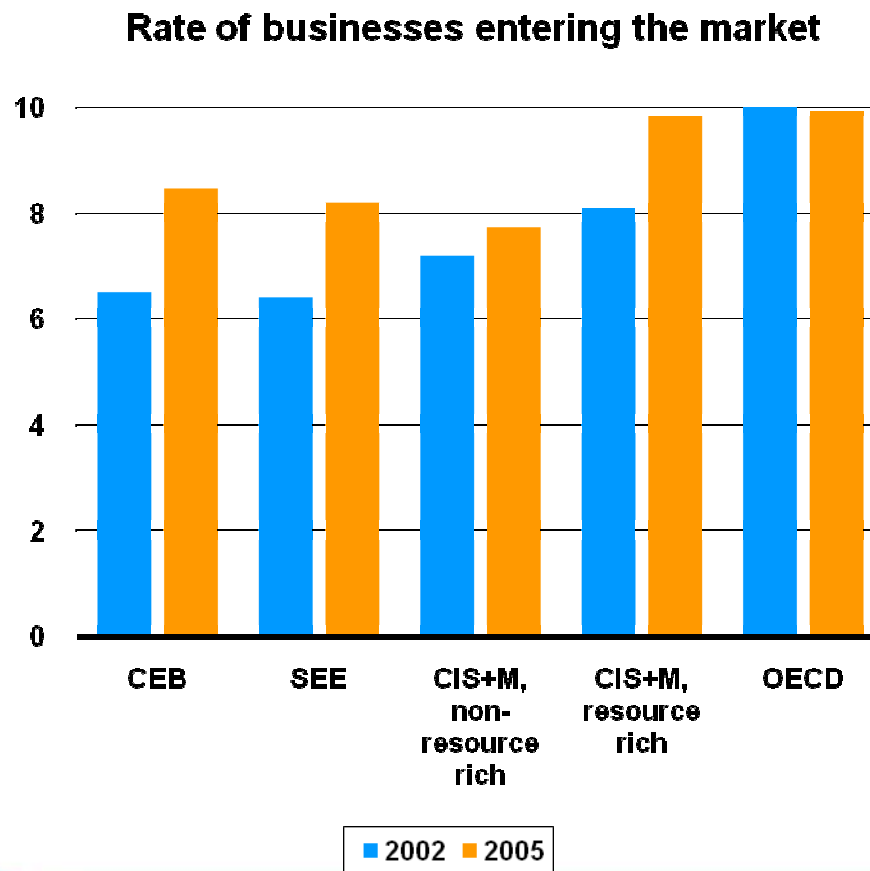


- Large differences within the transition region remain
- The CIS and SEE countries, in particular, are behind in terms of product market competition



Entry of new firms catching up

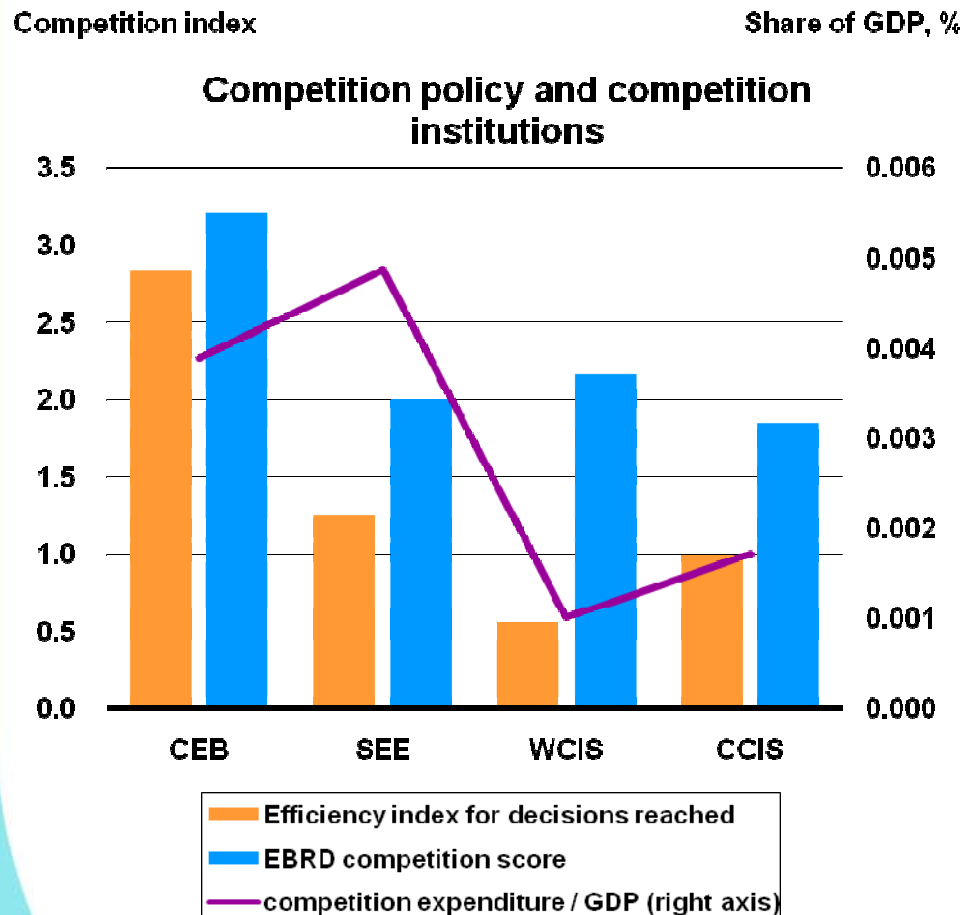
Percentage of total



- In addition to product market competition, low barriers to entry are key in fostering productivity growth
- Rate of entry has improved in TCs, but remains below OECD average



Funding and enforcement of institutions critical for competition



- Overall competition is most advanced in CEB
- CEB also leads in the efficiency of enforcing institutions
- Firms have to wait less if governments spend more in improving the efficiency of their competition institutions





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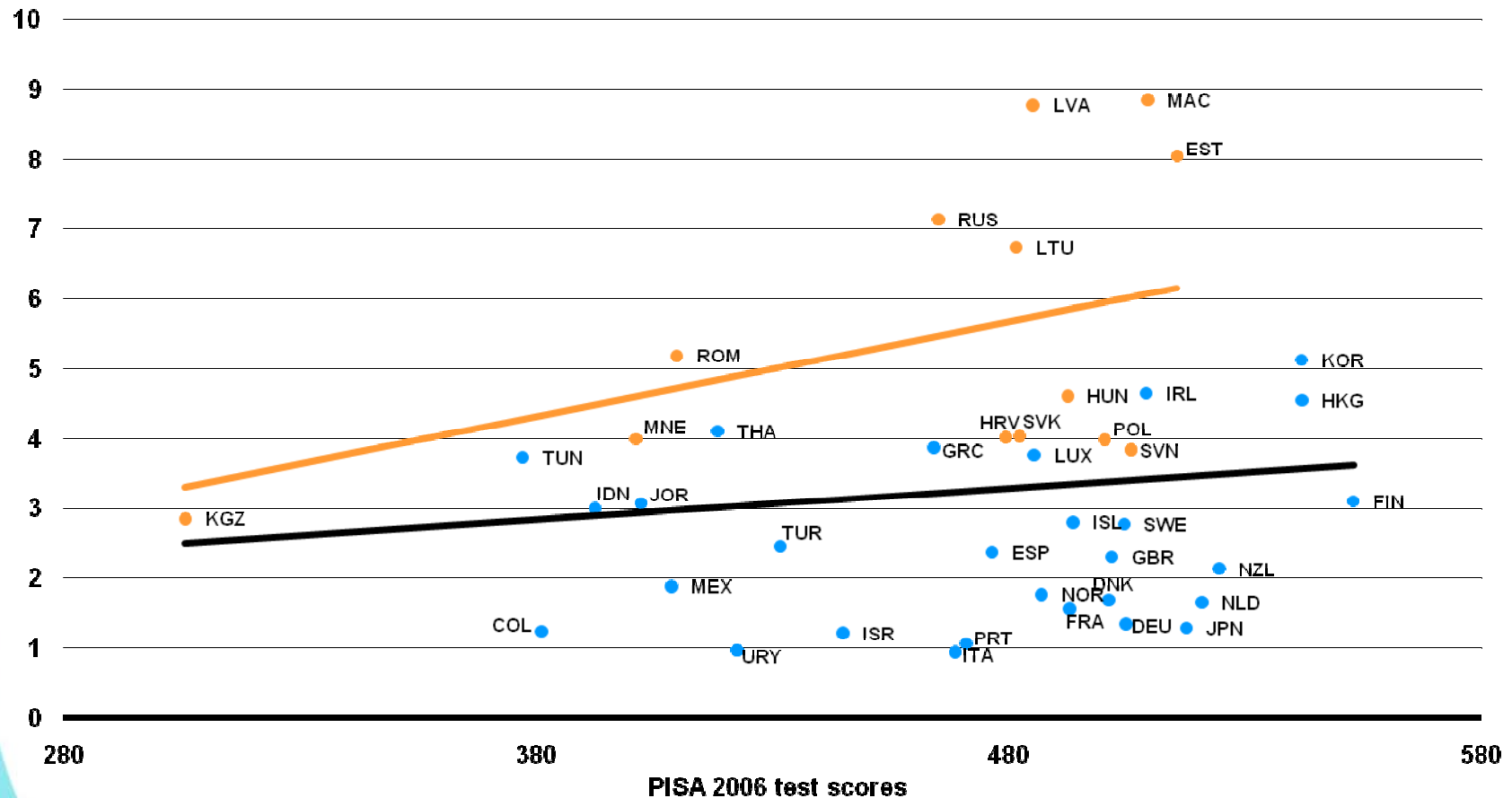
Product mix

Policy Implications



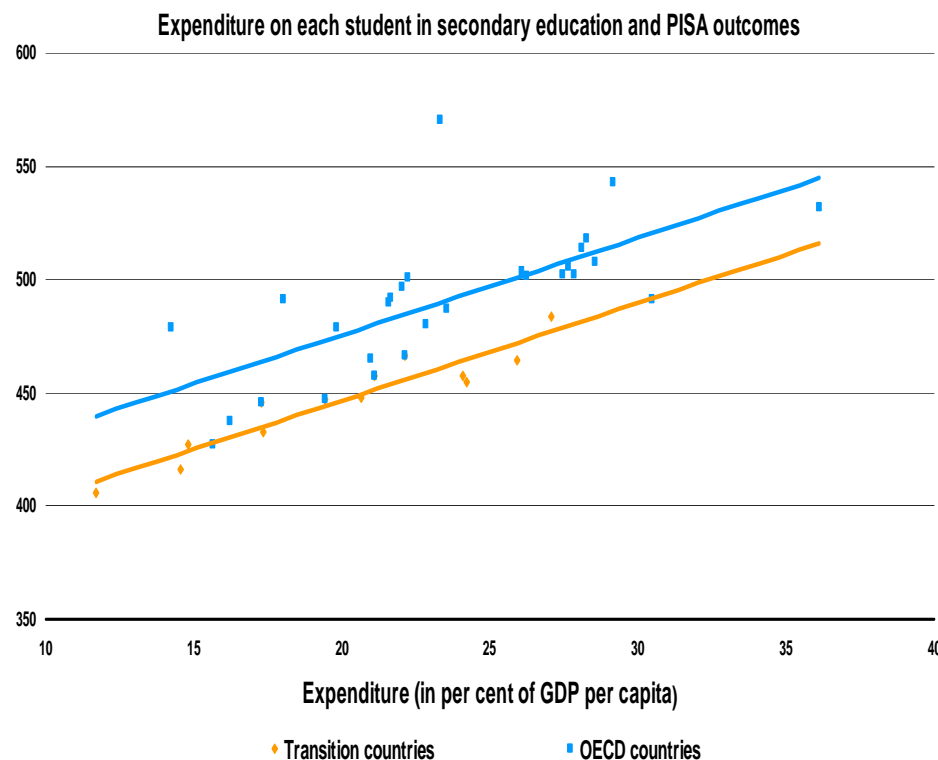
Education quality associated with growth

Real GDP per capita growth (per cent)



Educational quality is lagging in transition economies

PISA scores conditional on GDP per capita



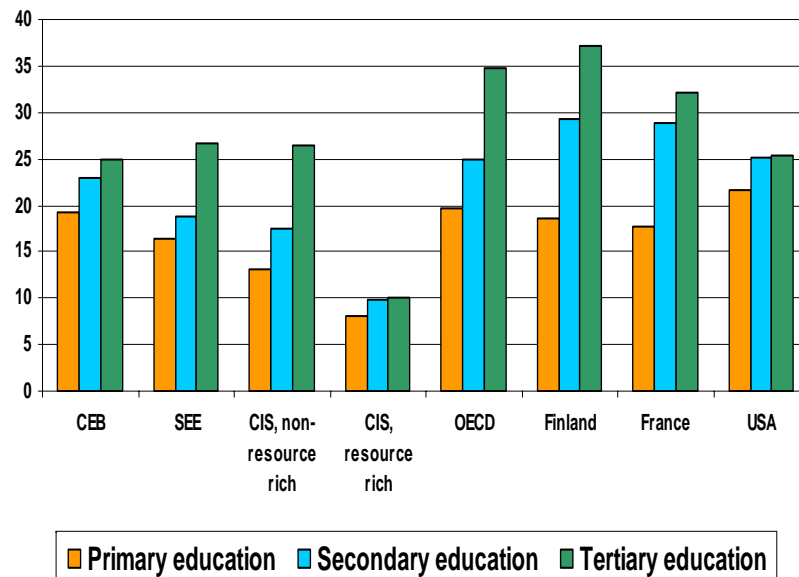
- PISA scores systematically below OECD averages
- Clear relationship between scores and expenditures per student (even in percent of GDP per capita).



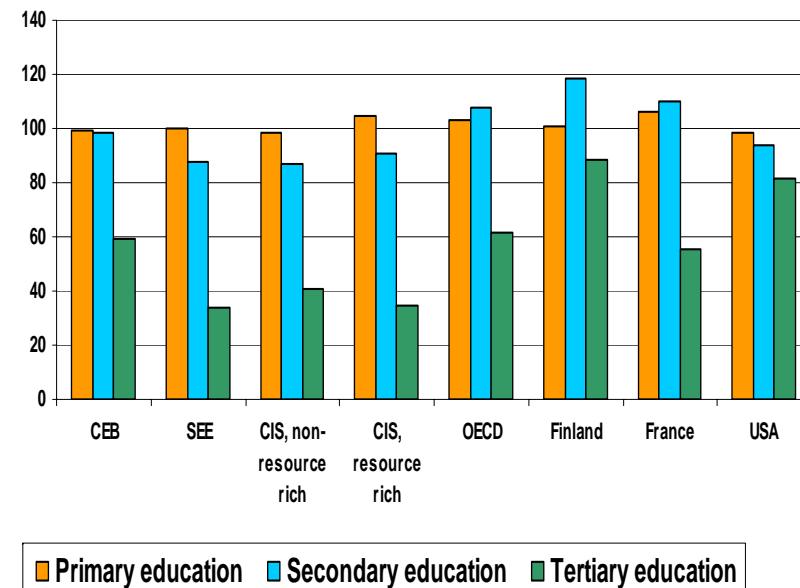
Education expenditure and enrolment lower in transition countries

- Education expenditure is lower even as a share of per capita GDP
- Except for primary education, enrolment rates are lower in transition economies

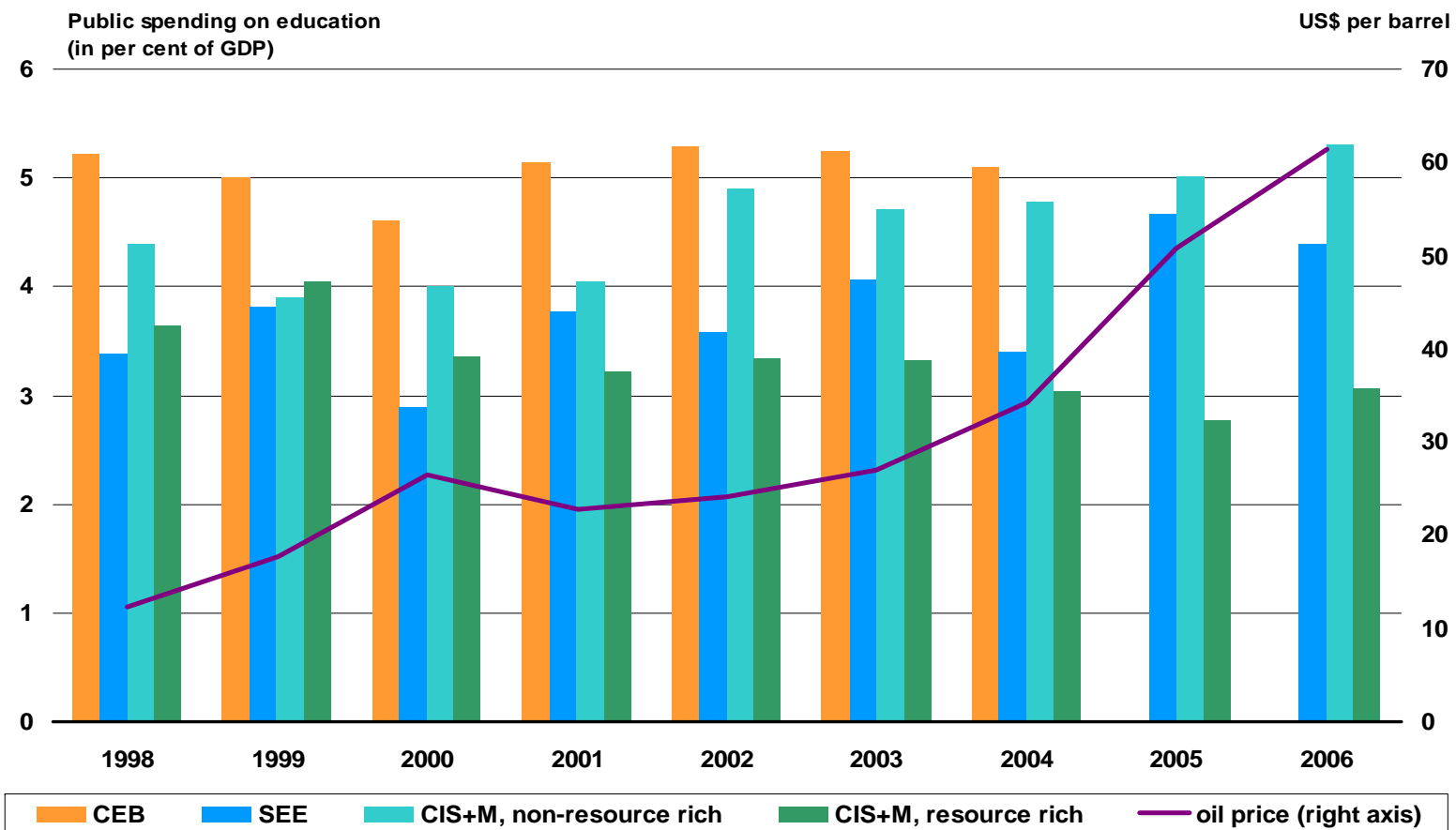
Expenditure per student (% of per capita GDP) 2003-2006



Gross enrolment rates 2003-2006



Educational expenditure not kept up with resource windfall





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Trade and Product Mix

- Countries successful in export markets tend to grow faster than those that are not (export-led growth)
- *Composition* of exports is linked to future growth
- Existing product/export structures differ in terms of their “*connectedness*” to other products; they make it easier to produce these products in the future
- Where do transition countries stand in terms of both export composition and connectedness



Export Sophistication

(Hausmann, Hwang and Rodrik, 2007)

- Measure of technological sophistication not based on assumed level of technology content or value – but on outcomes
- Products that are typically exported by rich countries considered to be more sophisticated
- If a country's initial export package is sophisticated then future growth is likely to be more accelerated
- Measure used is EXPY – calculated in two stages



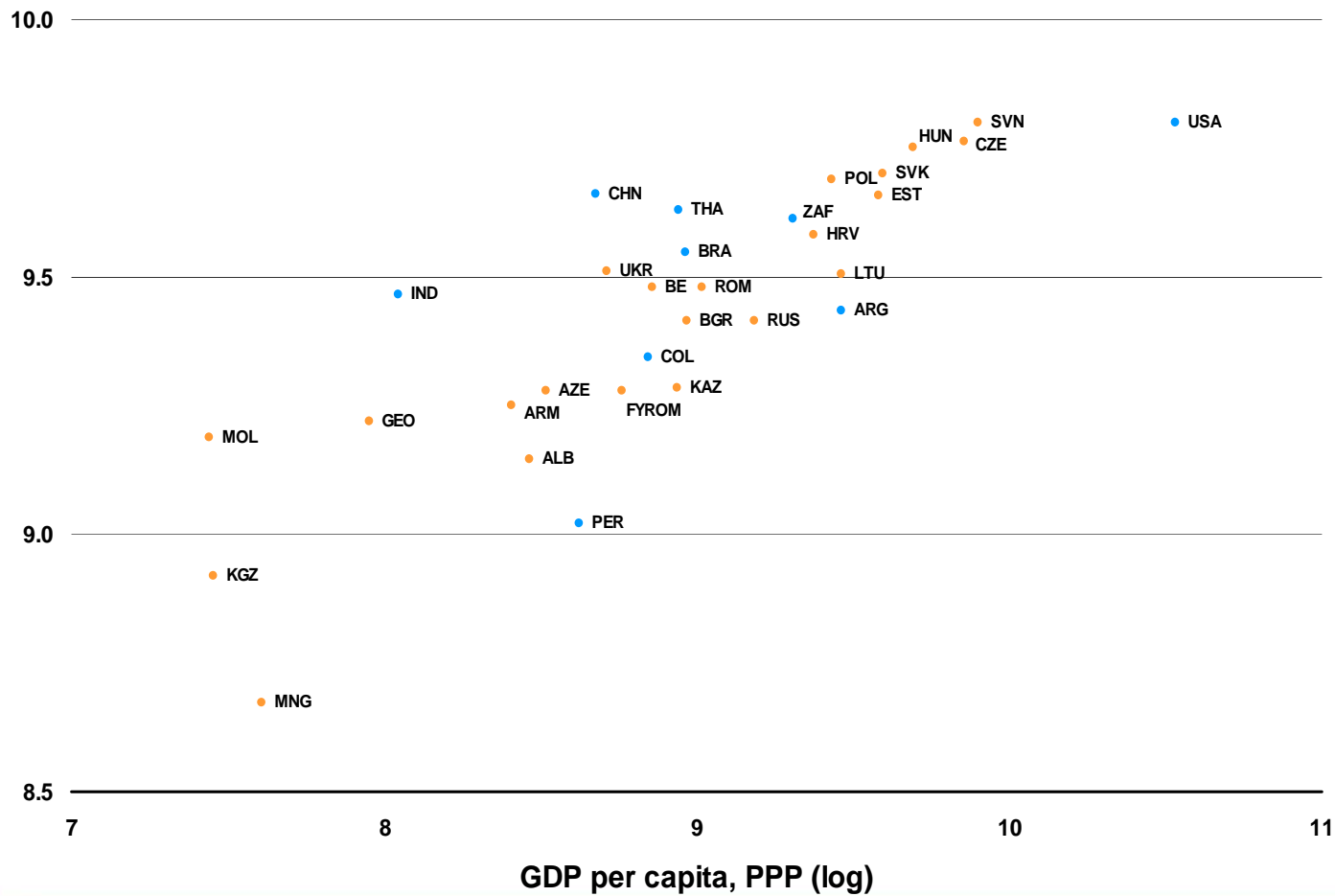
Export Sophistication

- **PRODY** – *product level measure giving income level associated with each product in the world*
 - The PRODY of a particular product is the GDP per capita of the typical country that exports that good
 - calculated by weighting the GDP of all countries exporting that good by comparative advantage.
 - Every (exported) product has a PRODY
- **EXPY** – *country level measure giving the income associated with a country's export basket as a whole*
 - Calculated by weighting the PRODYs of all goods in their export basket by the share in total exports



Log EXPY and Log GDP per Capita (PPP)

EXPY, PPP (log)



Export Connectedness

- Proximity – probability a country produces both products
 - a country good at product A also good at B
- If two goods require the same set of inputs, there is a greater probability a country will have a comparative advantage in both
 - Building new capabilities of inputs much more difficult
- **Forest metaphor:** changing what a country produces akin to jumping from one tree to another (need appropriate inputs/capabilities)



Mapping the Product Space

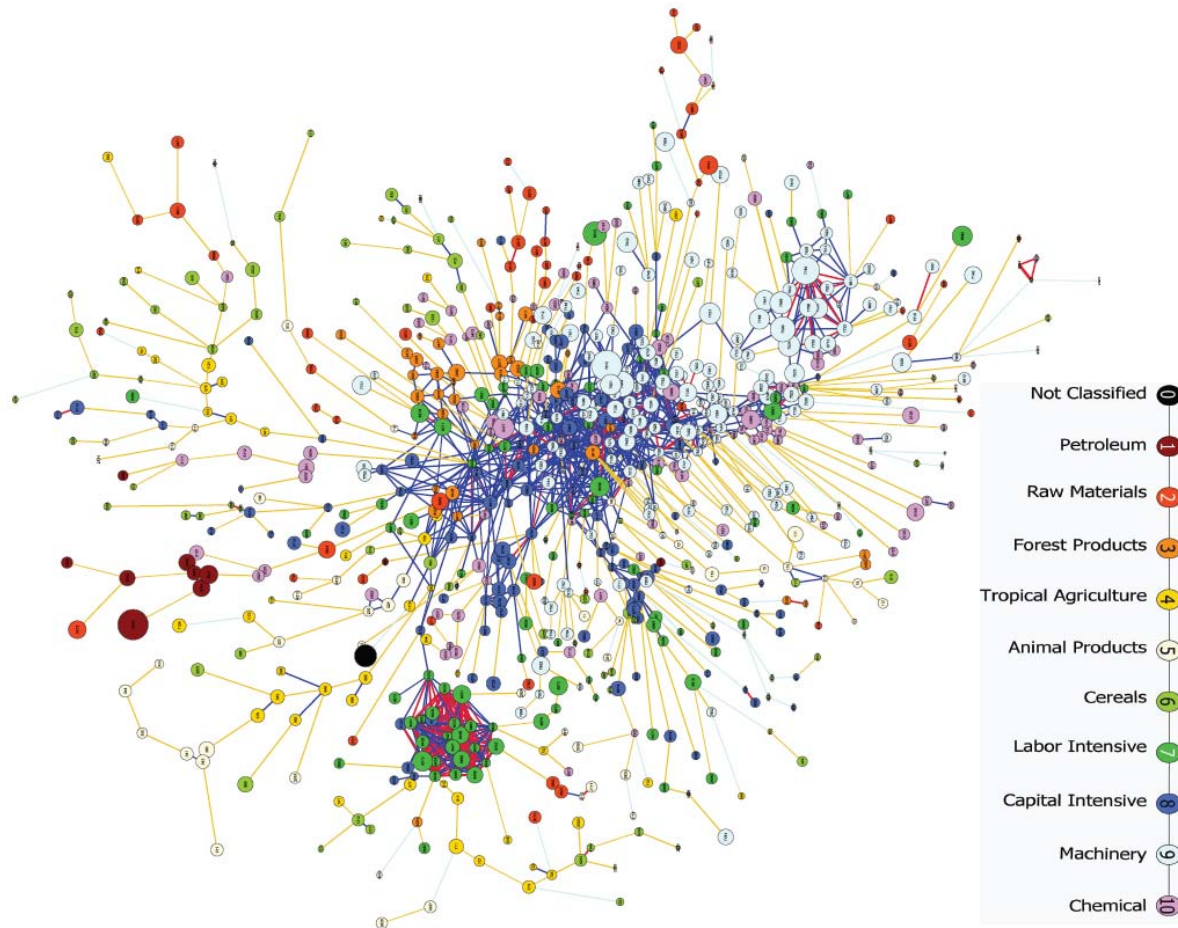
(Hausmann and Klinger, 2007)

Two Stages:

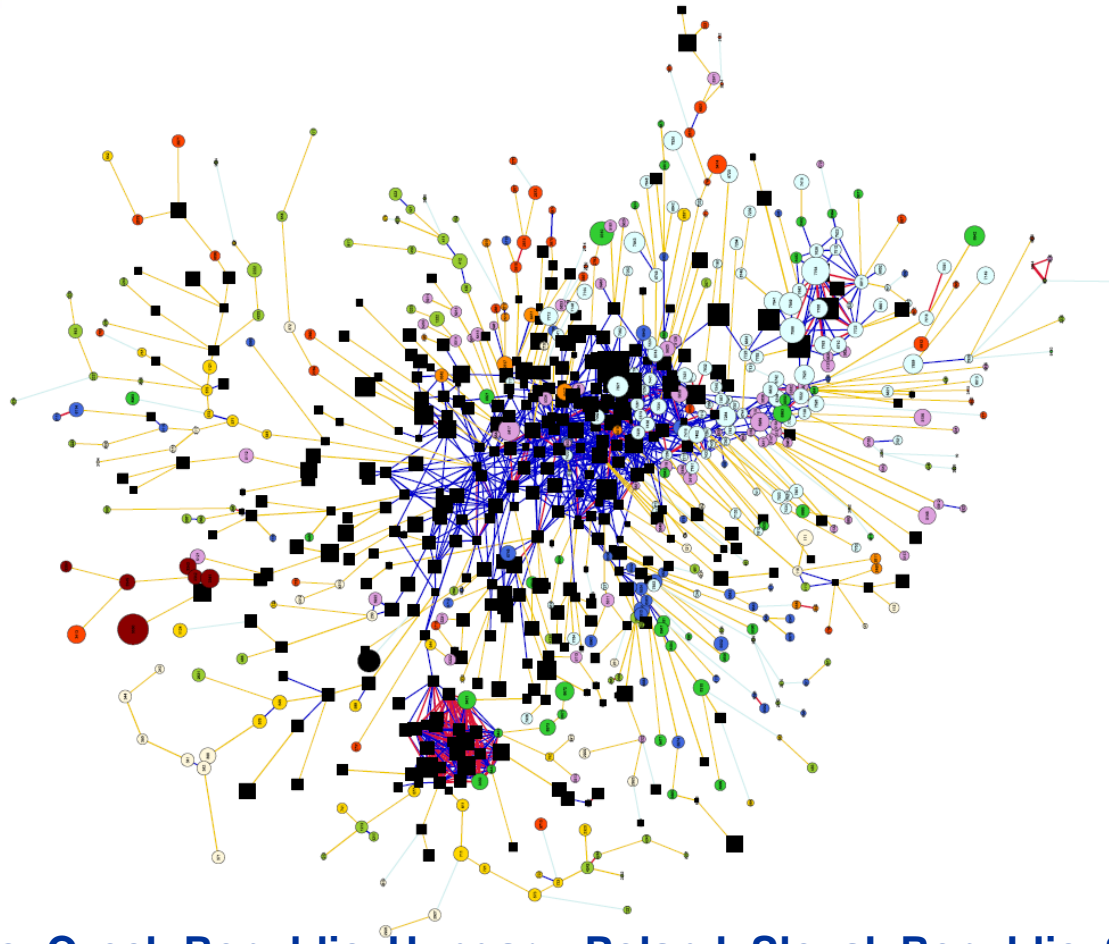
1. **The Skeleton:** Each product has a node. Each is connected to the product (node) with which it has the greatest proximity. Each link is colour coded according to proximity
2. **The Tissue:** For each node, links are drawn to all other nodes where proximity is greater than 0.55
 - Each node is a product with its size determined by its share of world trade and colour determined by its product group
 - Gives a sense of what is important in world trade and what types of products make up different portions of the space
 - Links indicate proximity
 - Size of the circle indicates degree of sophistication
 - Figure shows a central cluster composed of machinery, capital intensive goods and chemicals which is dense; cluster at upper right in light blue is electronics – easy to move around there
 - On left in brown is oil – far away from other goods – little connectedness



The Product Space



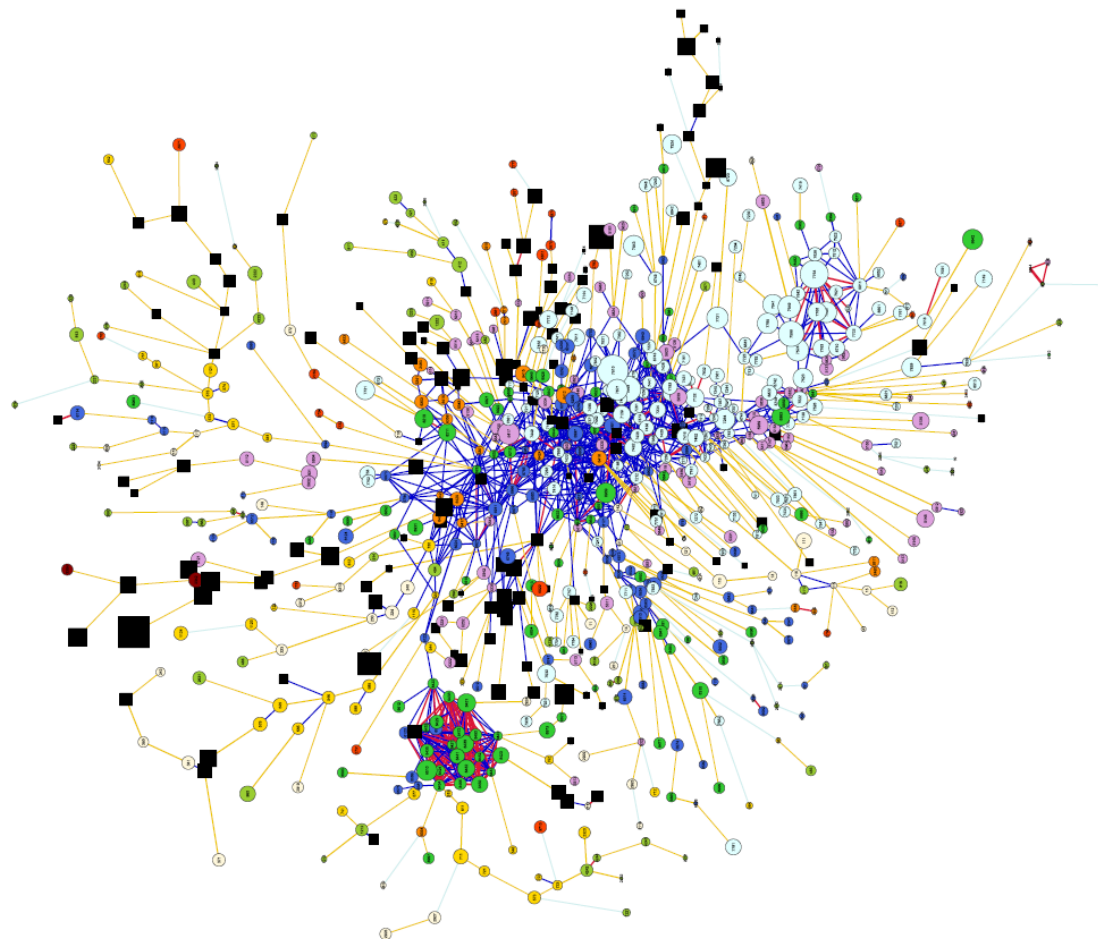
Central Europe Exports 2000



Countries: Czech Republic, Hungary, Poland, Slovak Republic, Slovenia, Hungary.



Western CIS Exports 2000



Countries: Belarus, Moldova, Russia, Ukraine, Moldova.



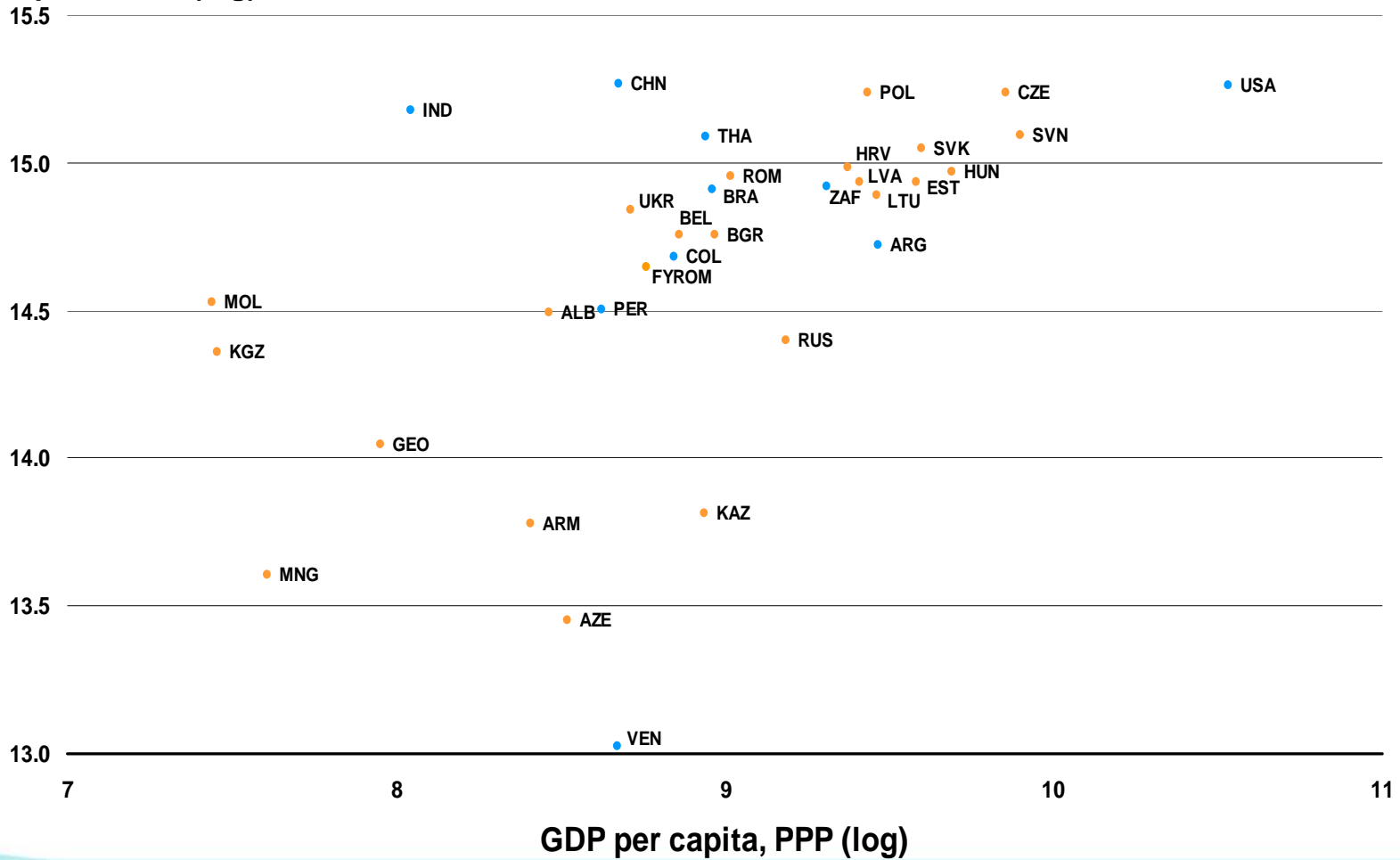
“Open Forest”

- Measure of connectedness of a country’s export basket - gives the option value of jumping to nearby trees
- For each country, there are two set of products:
 - exported products plotted on the product space
 - non-exported products, which are not.
- The nodes corresponding to non-exported products are therefore “unoccupied” (each has a PRODY)
- Measure weights these PRODYs by the distance to existing export products, calculated by the proportion of countries in the world that produce both



“Open Forest” and GDP per capita, PPP (log)

Open forest (log)



Implications for the Region

- CEB upgraded quality and moved towards higher value manufactures - likely to continue.
- SEE more mixed, but should be able to grow through further diversification
- CIS not succeeded in developing new, higher value, manufacturing industries, due heavy reliance on fuels and raw materials (poorly connected) - movement into new sectors likely to be difficult and costly





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Competition policy: focus on low entry/exit barriers rather than on policing firms

- Broad deregulatory framework
- Easy and quick licensing and registration procedures
 - One-stop shop licensing
 - Efficient and quick property registration
- Investigate anticompetitive behaviour not just by firms but also by government bodies at all levels
- Transparent, independent and rules based competition authority



Education policy: focus on quality of primary and secondary education

- Enrolment rates are already high in transition countries (given their GDP levels)
- Quality of primary and particularly secondary education prerequisite for building a skilled workforce
- Mechanisms for quality assurance:
 - Teacher training (undergraduate education)
 - International comparable quality assessment (such as PISA) inform policy makers
 - Adequate spending on education in all phases of the economic cycle



Diversification: Case for industrial policy?

- Horizontal policy: Improve firms' environment
 - Education and human capital
 - Infrastructure
 - Access to finance
 - Supporting innovation
 - Promoting exports
 - Improving legal framework and government services
- Vertical policy: Promote particular products or sectors
 - Through sectoral/firm targeting of above instruments
 - By subsidizing the activities of particular sectors/firms directly



Horizontal vs. vertical policies

1. Horizontal policies improve *capabilities*

- A skilled work force that can be deployed in other areas
- Infrastructure that can be used for many products
- Access to finance to develop new products

2. Horizontal policies “cure” causes

- If problem is lack of skilled workers, subsidies will not help
- If problem is corporate governance, access to finance won't help

3. Vertical policies demanding for government

- Perhaps for this reason, decidedly mixed record; no success stories in TCs so far (although increasingly popular in CIS)



Room for vertical policies, but design/implementation critical

- *Subsidising new products/sectors almost never smart*
 - Risk of getting it wrong
 - Failure to address underlying obstacles
 - Large potential for rent-seeking and abuse
- *Vertical policy should target capabilities building*
 - loosening sector specific constraints (fin + infrastr)
 - some successful examples, e.g. Israel venture fund
- *Incorporate market discipline*
 - competitive processes for allocating finance, driven by commercial prospects; private market cofinancing



Conclusion

- Challenge to sustain growth and to minimize impact of current crisis.
- Constraints to long run growth: competition; education; and commodity-orientation of some economies
- Reducing these constraints requires improving the quality of education, reducing barriers to entry, improving competition authorities, and improving access to finance for new product development
- Industrial policy targeted at particular sectors, creating capabilities, not promoting particular outcomes

