



Boosting Public Expenditures in R&D

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Outline

- Three short comments, all starting from the same simple question: ***“Why should one boost public R&D”***
- Currently little scope in most countries for any increased public investment in R&D (EU budget fixed, national budgets limited by GSP)
- Structural reforms of public funds at national level (José Mariano Gago) and at EU level (Janez Potočnik) will have to involve convincing others: ***outsourcing of our R&D funding problem***
- Not easy: in most countries pressure to reduce taxes and conflicting views on public expenditures (short versus long term, ageing, congestion, infrastructure, climate change, security, etc.)



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1. Structural reform of national and EU research funds division

- Dutch comment on agriculture: copy the CAP...
 - Mirror picture of agriculture and research
 - Balance between national versus EU common policy
- Strikingly strong believe in the ERC as a radically “excellence” enhancing tool: most significant part of the ERA as “open market to research”
- Is also part of a broader shift in the recognition of the importance of *individual* research talent as opposed to institutional research support
- Move towards grant portability both in ERC and national research councils with ERC likely to be superior to national research councils because of scale advantages.
- Logical policy consequence: start transferring research resources from national to EU level: a CRP



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Practical proposal

- Need to design the appropriate incentive scheme for member countries to transfer national research council resources to the ERC
- Unlikely to be at the level of EUROHORCS. They will rather want to defend their national relevance and public fund raising position
- Why not design a transfer system whereby ERC committed national research funds are exempt from GSP rules (one may remember Philippe Busquin's attempt for all public R&D at the time)
- Logic of the argument: moneys not spent nationally but at level of EU but as additional funds (so outside of formally approved EU budget) but with a clear efficiency improvement impact on the EU.
- Ultimately more room for national policy priorities in research and innovation, including social cohesion



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2. On the public R&D commitment

- Jack Marburger on public R&D indicators: our 1% GDP target
- Jo Cornu's comment yesterday on the size of the "market" in the US compared to the EU.
- One may think of an alternative, more direct public R&D investment target: % of total (consolidated) government expenditures
- Useful for the policy debate: highlights public policy's trade-offs in a more direct way as society's commitment to invest in science
- Should ultimately be enlarged to include all public commitments to "knowledge" from higher education (2% target), research to innovation.



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3. Role of private funds and financial innovation

- Argument similar to the one made by José Silva Rodriguez in yesterday's session on boosting private R&D: "How could we use private money to increase public R&D"
- At aggregate level of our economies: a clear mismatch. Large public and private savings in Europe with in many countries large institutional saving/pension funds.
- Why no interest of such long term investors in research?
- Not just a funding advantage, also crucial is the way external financial assessment makes more transparent possible hidden internal growth opportunities (IC transfer office)
- Link to R&D and innovation in private sector:
 - research has many unexpected outcomes, not all research outcomes will be used internally
 - Patents can only be traded for a fraction of the research costs, result in large unused patent portfolios



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Particular role of financial innovation in Europe

- What we used to know from R&D in business:
 - importance of internal funds for R&D and technological learning in firms typified by German and Japanese internal financing rules (Japanese chemical firms)
 - Reason: “patience” of internal capital: good for stability and long term commitment towards R&D and engineering departments
 - Venture and risk capital limited to new entrants and high tech/high risk activities
- Yet financial innovation more dominant in countries with strong external funding traditions
- (Continental) Europe offers lots of opportunities for venture capital, private equity funds and LBO
 - Lots of entry through venture capital, but quid about post-entry growth
 - Replacement of management within family firms
 - Private equity or LBO type of take-overs of risky niche parts of large multi-product firms



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Conclusions

- Public R&D does not operate in isolation:
 - Relationships with other public departments (health, agriculture, transport, energy, internal affairs,...) should be reassessed from the perspective of research and more broadly need for knowledge investments often in PPP
 - Relationships between countries on EU, but also beyond EU will generally be efficiency enhancing.
 - Relationships with higher education (universities) and innovation essential: between excellence and relevance
 - Relationship with the private sector not just the financial sector but also individual entrepreneurs (see e.g. the Perimeter Institute of [Mike Lazaridis](#), the co-founder and co-CEO of [Research in Motion](#)).



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