

Science, technology and innovation policy in difficult times

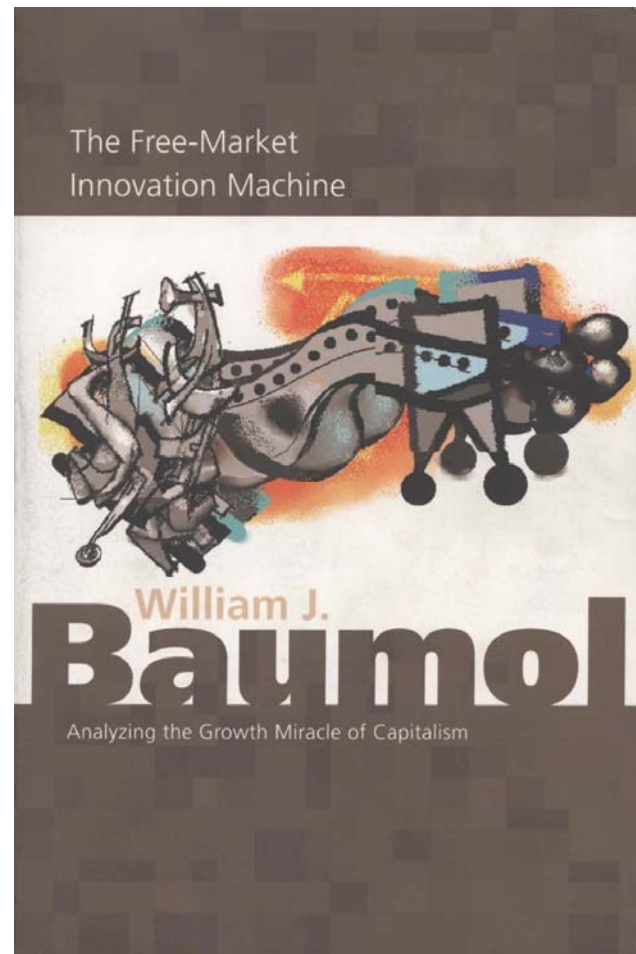
Dominique Foray

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I - Argument

- One great virtue of a free market economy is innovation:
« capitalism is unique in innovation, not in invention »
- *« Innovation has replaced price as the name of the game in a number of important industries; a matter of life and death »*



- But investments in commercialization of new technologies take substantial funds and time. Risks and uncertainty
- As any other economic agents, potential innovators respond to incentives; they have some private marginal return expectations;
- In case of great uncertainty and risk, further incentives need to be provided through innovation policy
- Private-sector investments will respond to the incentives created by public policies only to the extent that the policies are perceived to be credible – lasting and reasonably stable

Problem 1

- The current economic downturn put enormous pressures on R&D and innovation
- Demand side
- Output gap
- Risks on investments in intangibles
- Crise in financial markets

Problem 2

- « *The enormous conformity among economists doing technology policy research* »
- Policy research focus : how to increase the rate of innovation?
- But very little has been done about: how to influence the direction of innovation?

The Rate and Direction of Inventive Activity: Economic and Social Factors

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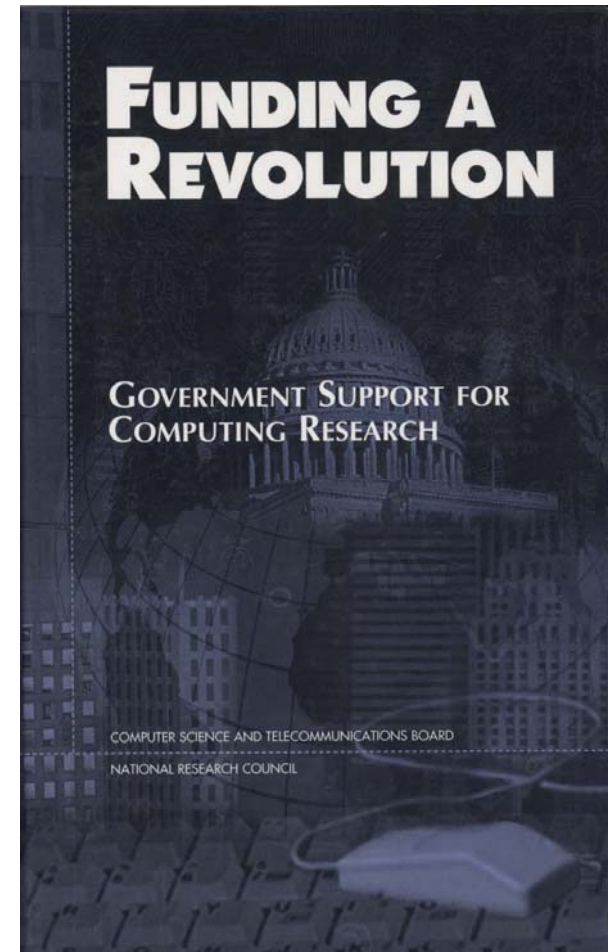


- Washington consensus
- Market failures do exist!
- Gouvernement failures are greater
- Keep neutral!
- Let's the price reflecting the future scarcity of commodities (induced innovation)

- But in a time of crises and Grand Challenges, there is a good case for re-assessing the value of policies aiming at influencing the direction of innovation
- Toward a new generation of policy's program : we can't copy and paste the old policy fashion of the 80s
- These old-fashioned policies have been detrimental to entrepreneurship, competition, market entry
- This is about designing policy: *how to select fields and deliver subsidies to favoured firms/sectors while not dissipating the extraordinary power of market driven resource allocation in boosting decentralized entrepreneurial activities?*

II - Grand Challenges and entrepreneurships

- The policy problem is not to invent a new technology but to promote a large area of « climate-change ameliorating innovations » where the country X can develop a comparative advantage
- Increasing the **rate** of innovation in a **certain direction**
- Internet revolution as an historical example :
 - The US policy involved a set of concerted and loosely coordinated actions on both the supply and demand sides of a broadly pre-defined agenda



Final message

- Need to rehabilitate policies about « direction »
- They should not reproduce the kind of (mission-oriented) policies in the 80s
- There is certainly a conflict between the need to influence not only the rate but also the direction of tech change and the classic desirability of maintaining neutrality in tech choices to avoid freezing competition
- Designing policies which are targeting some fields while supporting entrepreneurship and competitive entry

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法國巴黎理工大學科技管理學院院長多明尼克·佛西 Dominique Foray 著 周宜芳 譯

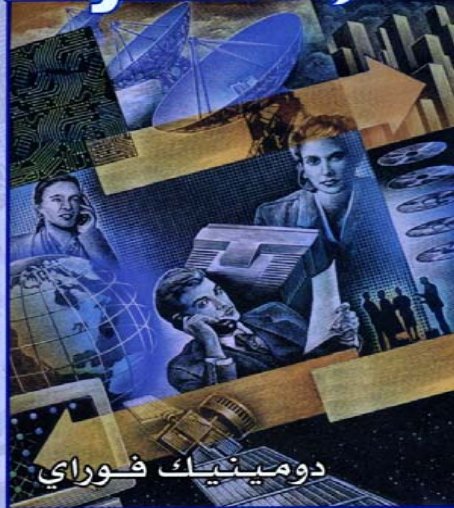
Dominique Foray

L'économie de la connaissance

The Economics of Knowledge

Dominique Foray

اقتصاد المعرفة



دومينيك فوراي

ترجمة:
د. محمد عرب صاصيلا



R E P È R E S

