

CIECTI / SEMINARIO INTERNACIONAL



**RECURSOS NATURALES Y DESARROLLO:
DESAFÍOS PARA LA CTI EN EL SIGLO XXI**

CENTRO CULTURAL DE LA CIENCIA (C3)
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CABA

Innovation Agencies: Pragmatism, Strategic Logic and the Political Economy of Success

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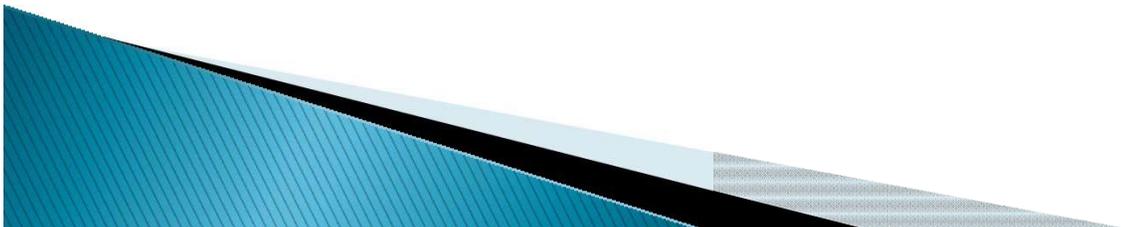
Discussion Points

- The logic of innovation-based (RIB) growth
- Innovation agencies – the need to experiment
- IAs in the age of “innovation”
- Can we strategically think if everything is context specific?
- Conclusion and work in progress



Innovation-Based Growth

- Different logic of policy:
 - Undefined markets and products
 - Technology itself is the product
- Commitment to a process of continuous policy experimentation (ability to kill is as important)
- Radical ideas – new (sometimes not-yet-existing) partners



The Conventional Answer I



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- Pilot centralized agency (coherent and autonomous bureaucracy a-la the Japanese and Korean Miracles) with an “innovation” or “entrepreneurship” spice
 - Autonomous bureaucracy better positioned to resist special interests
 - Centralized agency can coordinate across ministries, firms
- Past success in catching-up cases, but perceived to struggle with rapid, innovation-based competition (Breznitz 2007, Krugman 1994, Katz 1998, Wong 2011)

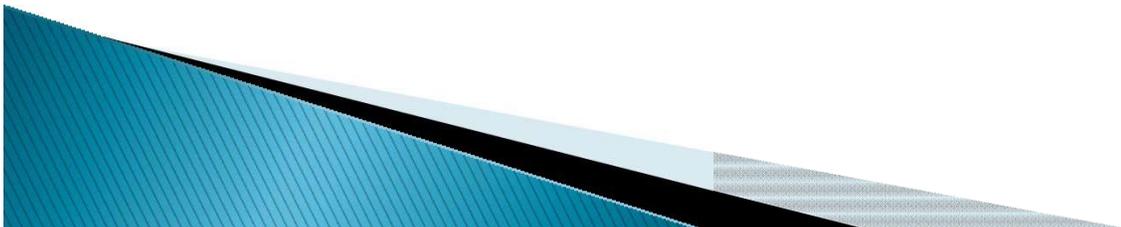


The Unconventional Answer: The Power of Peripheral Agencies



The Unconventional Answer: The Power of Peripheral Agencies

- Peripheral agencies with few hard resources are less vulnerable to political interference
- Networking with non-traditional actors exposes policy-makers to new ideas
- Inability to protect successful projects forces them to continually innovate
- Success – leading to stagnation
explaining policy innovation, as well as why successful agencies become less innovative over time



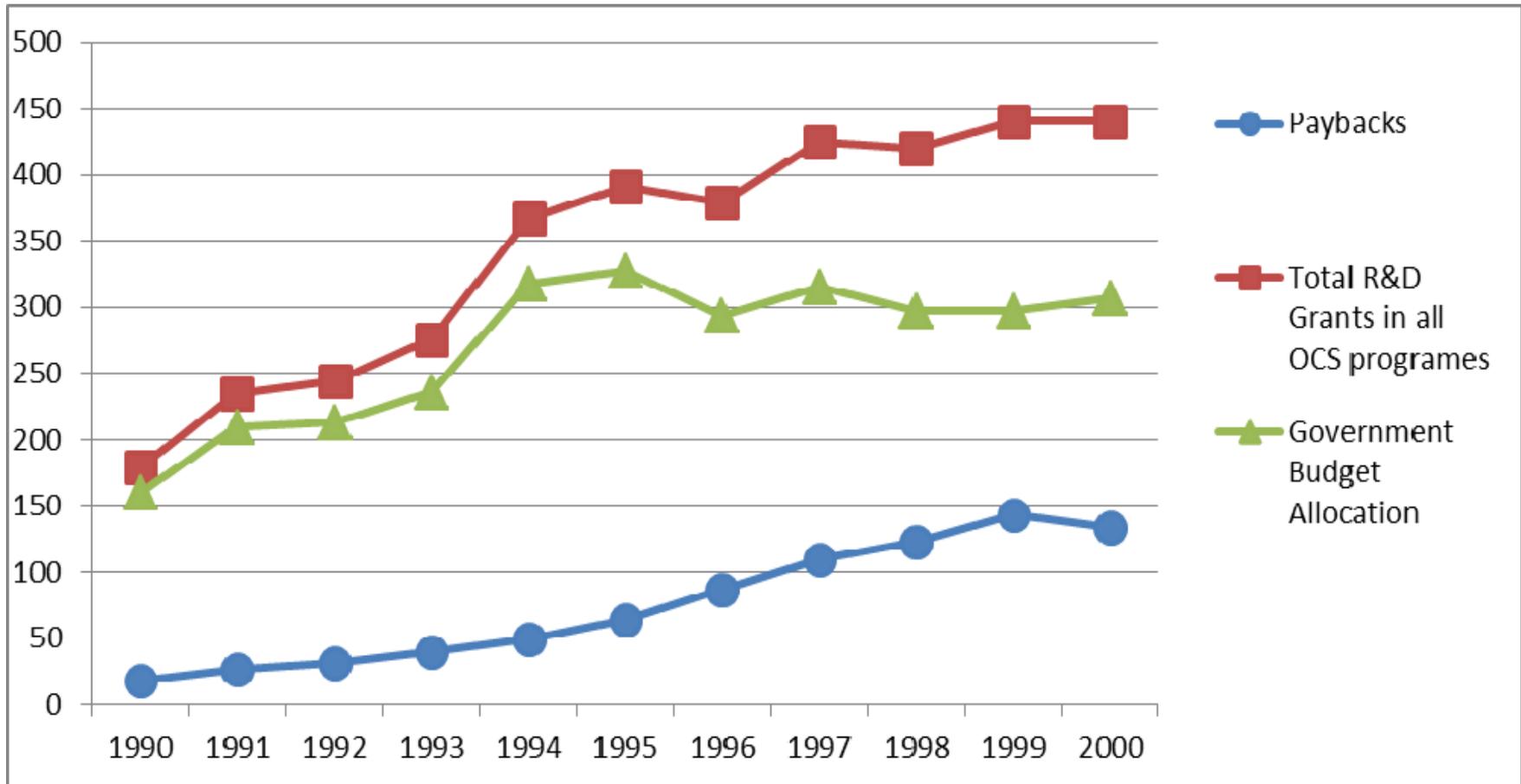
IA in an Age of Innovation



The Age of Innovation – aiming for partial success?

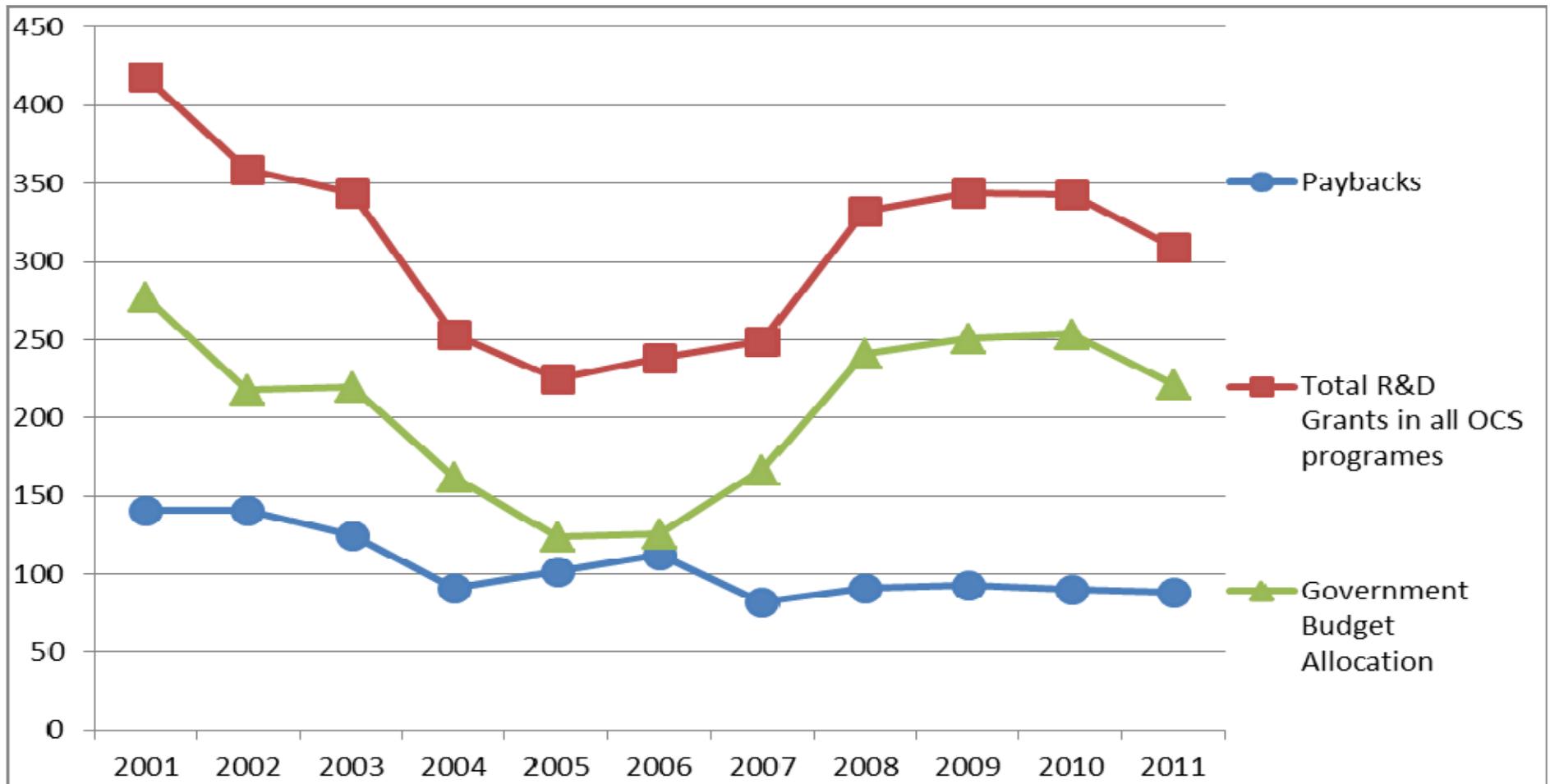
- As the idea that innovation is the main engine of growth became the accepted wisdom, and the lure of high tech growth spread, more countries want to promote rapid, radical product innovation (Breznitz 2007, Havas 2014, Wong 2011)
- In this environment, even modest innovation agencies acquire a high political profile
- Subject to increasing attention by politicians and large, established interest groups, reduces IA's capacity to engage in continuous, radical experimentation

The benefits of marginalization:
Annual Rise of the OCS Budget 1990 to 1999 (2000 \$USD Million)



Note: payback are the total amount the OCS inject back to the budget from the royalties gained on past grants, government budget allocation is the total sum of approved annual budget allocation to the OCS from the Ministry of Finance

The Painful Fruits of Success – OCS's Budget 2000-2011 (2000 \$USD Million)



The Answer!

Always experimental and flexible, always context-specific, not worried about losing body parts



Only one tiny problem



Can we still think strategically while accepting that: “everything is context specific”?

- Innovation is not “One” so why should we assume all innovation agencies can do both?
- Role of the State in the Market
 - **Alignment between mission and means:**
 - Mission and the ways in which experimentalism and co-evolutionary learning
 - **Alignment between mission and environment**
 - Fraunhofers in the desert
 - VCs! VCs! Everyone should have VC
 - **Alignment between the necessary tools and the goals**
 - Indirect means when attempting to stimulate startups?
 - Modest resources with internal R&D undertaking?

Types of Innovation Agencies

		Role of the State in the Market	
		Assisting/Stimulating (Market Failure Logic)	Leading/managing
Innovational Focus	Novel Technologies/ Products	<i>Transformation Enablers</i>	<i>State-Led Disruptors</i>
	Process and Incremental	<i>Productivity Facilitators</i>	<i>Directed Upgraders</i>

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	Process and Incremental	<i>Productivity Facilitators Vinnova IRAP</i>	<i>Directed Upgraders A*STAR CORFO ANII</i>

Conclusion and Current Research

- The importance of institutionalization and patience not huge budgets
- THE future question: Now that innovation is THE mainstream political answer to all ills – how can we think strategically about “partial success”?
- If you cannot – what can you do to allow true constant experimentation with new ideas an
- How sharp are the tradeoffs? How tight need the fit be?
- The little elephant outside the room: Globalization and the fragmentation of production
 - a) Do different models fit different stages?
 - b) What openings are the most promising for LAC?





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