



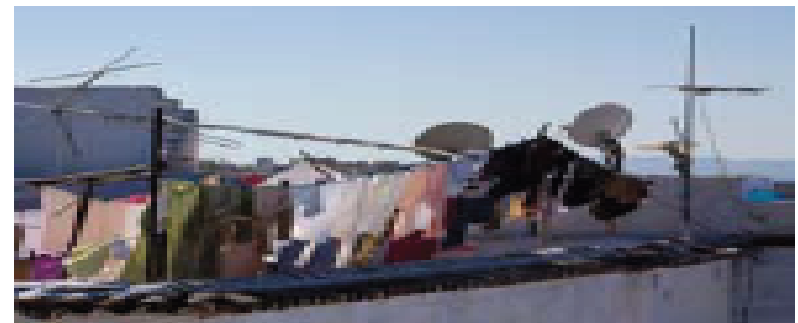
**FINNOV**  
Finance, Innovation & Growth

Innovation  
Knowledge  
Development

# Innovation and Inequality:

*New Indicators from Pharma and Beyond*

15 - 16 May 2010  
Sant'Anna School of Advanced Studies  
Pisa, Italy



## **INNOVATION AND INEQUALITY:**

*the need for new indicators  
from Pharma and beyond*

Sant'Anna School of Advanced Studies, Pisa, Italy

15 - 16 May 2010

**Mariana Mazzucato**

FINNOV Coordinator

IKD Deputy Director

## Announcements:

- ✓ Changes to the programme
- ✓ Derek Beesley: —clips for website and You Tube
- ✓ Dinner tonight
- ✓ Reimbursement
- ✓ Web access

## INNOVATION, KNOWLEDGE AND DEVELOPMENT

IKD is an interdisciplinary research centre at the Open University working on relationships between:

- biotechnology innovation and development
- health systems and innovation
- capabilities, capacity, and development
- innovation and industry dynamics
- knowledge management
- entrepreneurship
- social learning and public action



The Open University

crossing faculties of Social Sciences, Technology and Business.

<http://www.open.ac.uk/ikd/>

## INNOVATION, KNOWLEDGE AND DEVELOPMENT



*Types of questions we ask linking I, K, and D:*

- ❖ Why do firms *persistently* differ in their growth rates, profits, and innovative performance? (*understanding heterogeneity*)
- ❖ What are the mechanisms by which knowledge is searched for, created and absorbed? (*absorptive capacity*)
- ❖ How are institutional capabilities created and sustained to generate equitable health systems as part of inclusive economic development (*capabilities and development*)

## FINNOV: The basics

- FP7 EC funded project (€1,494,870)
- Under the topic "*The role of finance in growth, employment and competitiveness in Europe (SSH -2007 - 1.2.03)*"
- 36 month duration (started March 2009)
- Co-ordinated by the Open University
- Seven European partners (four countries)
- Eight work packages
- Webpage: [www.finnov-fp7.eu](http://www.finnov-fp7.eu)

## FINNOV research & partners

	<b>Title</b>	<b>Lead Institution</b>
SELECTION	Co-Evolution of Industry Dynamics and Financial Dynamics	The Open University, UK
EXPERIMENTATION	Capital Markets and Innovation: Financing Business Experimentation in Europe	University of Cambridge, UK
PERFORMANCE	Finance, Constraints for Growth, Bankruptcy, and Employment Dynamics	Sant'Anna School of Advanced Studies, Italy
GOVERNANCE	Corporate Governance and Innovation: Implications for Stable and Equitable Economic Growth	University of Bordeaux, France
ASSETS	Asset Prices, Consumption, and Income Distribution	Economics Institute, Czech Republic
AGENTS	Modelling Micro Macro Links and Policy Implications	Polytechnic University of Marche, Italy
TRAJECTORIES	Technological Trajectories and Financial Services	University of Sussex, UK



## Key FINNOV questions

- What is the relationship between financial markets and the *real economy*?
- How do **differences** in economic agents and institutions affect this relationship?
- How can national and EC **policies** shape the operation of financial markets to foster innovation and more equitable economic growth?





## EUROPEAN POLICY BRIEF

### *Do Financial Markets Reward innovation?*

On-going project

Spring 2010

#### SUMMARY

##### **Objectives of the research**

Financial markets are driven by the 'real' economy, and in turn have a profound effect on it. They impact the process of innovation and the way firms in different sectors exploit innovations. The purpose of the FINNOV project is to analyze, empirically and theoretically, the relationships between financial markets and the real economy, leading to a better understanding of how *differences* in financial agents and institutions affect such relationships and outcomes.

##### **Scientific approach / Methodology**

Understanding the interactions of financing mechanisms, innovation trajectories, and differential impacts on the stock market requires an inter-disciplinary approach. In FINNOV we bring together expertise in finance, economics of innovation and business history. FINNOV employs empirical and theoretical methods that allow modeling of heterogeneity among firms, sectors and institutions, and micro-macro interactions.

##### **New knowledge and/or European added value**

FINNOV will lead to new knowledge on the relationship among financial markets, innovation and growth in different types of firms, industries, and national contexts — critical to the Lisbon Agenda's (2005) goal of fostering growth through innovation.

##### **Key messages for policy-makers, businesses, trade unions and civil society actors**

Results show a wide diversity in the relationship between innovation and finance across firms, sectors and countries — signaling a need for more structured industrial policy, able to cope with persistent differences in firm performance and capabilities. Policies that do not take these differences into account risk wasting private and public resources directed at innovation. Financial market reform should aim to restructure financial markets so that they reward rather than penalize the most innovative firms.

## EUROPE 2020 STRATEGY EXECUTIVE SUMMARY

Europe faces a moment of transformation. The crisis has wiped out years of economic and social progress and exposed structural weaknesses in Europe's economy. In the meantime, the world is moving fast and long-term challenges – globalisation, pressure on resources, ageing – intensify. The EU must now take charge of its future.

Europe can succeed if it acts collectively, as a Union. We need a strategy to help us come out stronger from the crisis and turn the EU into a smart, sustainable and inclusive economy delivering high levels of employment, productivity and social cohesion. Europe 2020 sets out a vision of Europe's social market economy for the 21<sup>st</sup> century.

Europe 2020 puts forward three mutually reinforcing priorities:

- Smart growth: developing an economy based on knowledge and innovation.
- Sustainable growth: promoting a more resource efficient, greener and more competitive economy.
- Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion.

The EU needs to define where it wants to be by 2020. To this end, the Commission proposes the following EU headline targets:

- 75 % of the population aged 20-64 should be employed.
- 3% of the EU's GDP should be invested in R&D.
- The "20/20/20" climate/energy targets should be met (including an increase to 30% of emissions reduction if the conditions are right).
- The share of early school leavers should be under 10% and at least 40% of the younger generation should have a tertiary degree.
- 20 million less people should be at risk of poverty.

## Innovation and Inequality

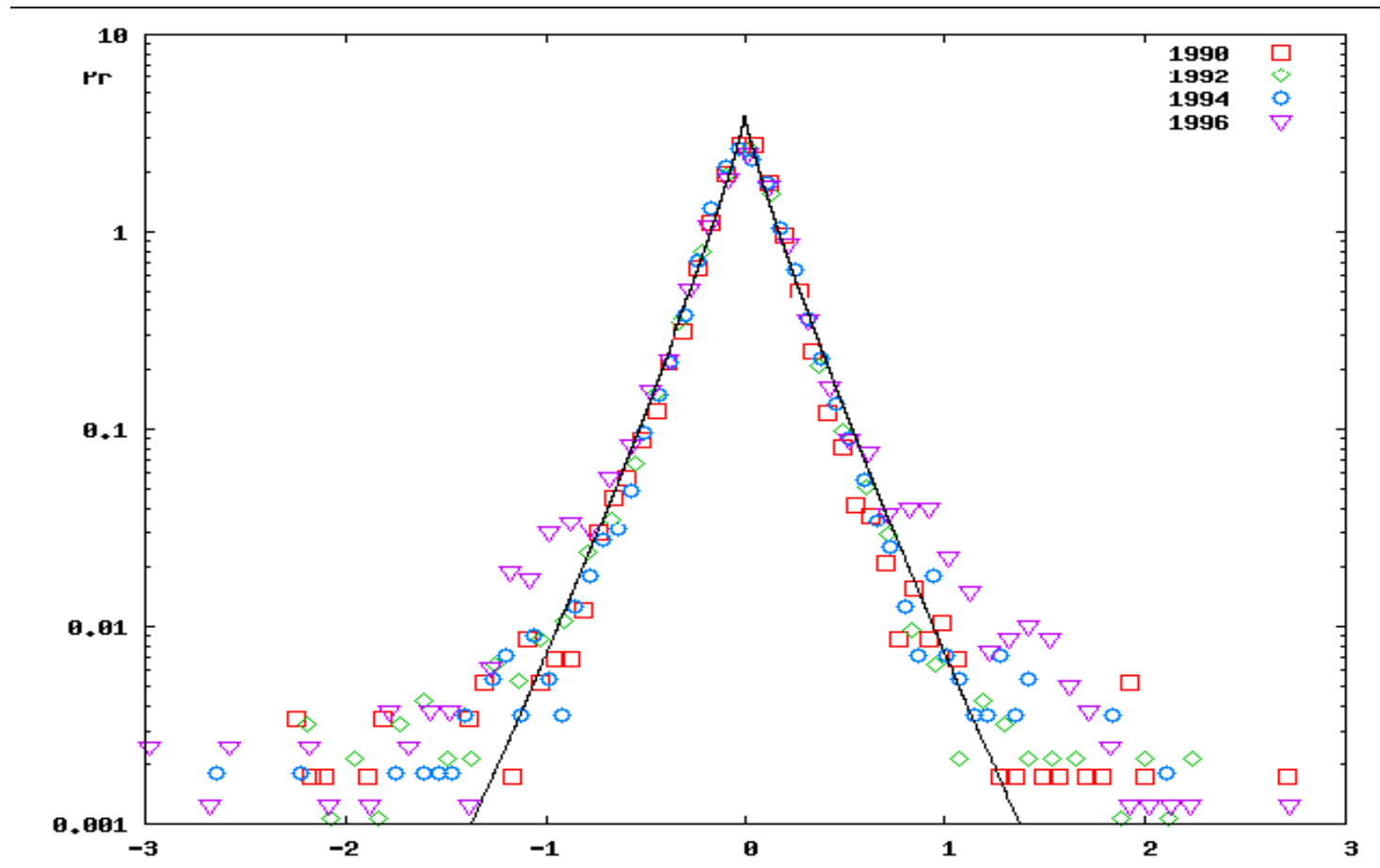
- ❖ Innovation and income distribution (old Classical question)
  - ❖ Skill-biased technical change and inequality
  - ❖ Innovation and 'access' (e.g. to health care)
  - ❖ Financialization and inequality
- 
- ✓ Need for new indicators of inequality
  - ✓ Need for sector specific studies (building on **industry dynamics** perspective)

## Industry Dynamics and Economics of Inequality

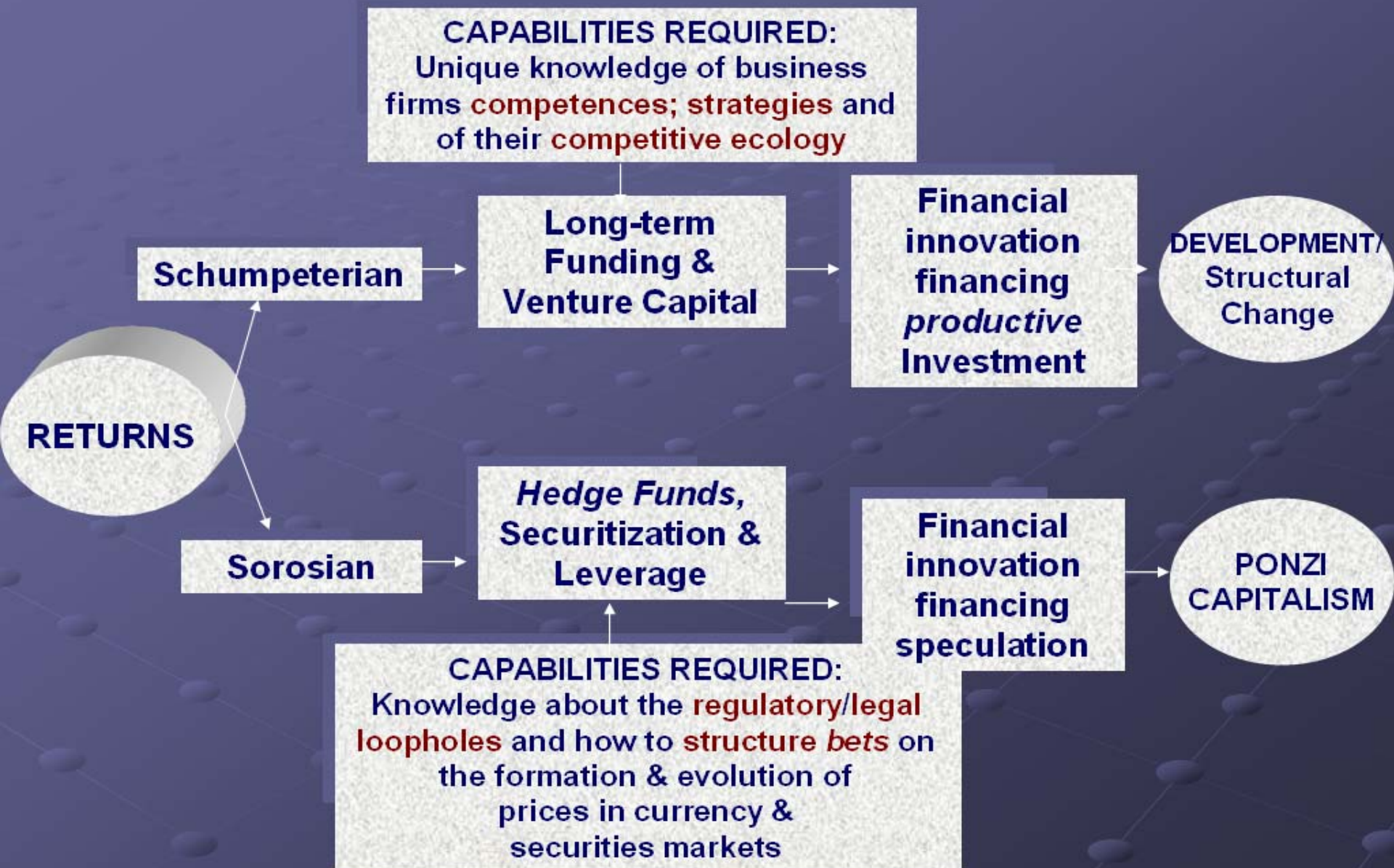
- ❖ Links between patterns in industry dynamics and patterns in the economics of inequality?
- ❖ *What are the socio-economic dynamics* underlying the skewed distribution of firm size, fat tails in growth rates, and persistence in profit rates? No work on this!
- ❖ Are wages higher in industries with a more/less skewed distribution of firm size (holding skills constant)?
- ❖ Is there a correlation between persistence in innovation and persistence, or the lack of it, in intra-industry wage differentials?
- ❖ Do industries in developing countries which display persistence in innovation 'catch up' more easily? Why?

## Growth/size rate distributions → Fat tails

Growth rates distributions in different years. Size measured in terms of Value Added.  
Italian aggregate manufacturing (Bottazzi G., Cefis E., Dosi G., Secchi A. (2003))









The Open University

## Financial Institutions and Economic Security

**21-22 May 2009 Regent's College  
Conference Centre London**

The Financial Institutions and Economic Security conference creates a high-profile forum to delve into the role of financial institutions in supporting or undermining economic security in the advanced nations of the West, and the implications for industrial innovation and economic performance.

Over the two day programme, leading experts in Finance, Economics, Business and Policy will come together to discuss the influence of financial institutions on employment security, retirement security, and housing security, as well as the interrelations among these forms of economic security. The conference will provide a stimulating environment for the discussion of these pressing issues, while setting an agenda for future research.

*“Global shift towards primacy of shareholder value, has undermined innovation and stable employment.”*

*“To achieve stable and equitable economic growth Governments must favour economic entities that will invest in creating stable employment and generating new goods and services that the population needs at prices that the population can afford.”*

