



From Market Fixing to *Market Making* *implications for smart inclusive growth*

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- **Smart** growth (more innovation)
- **Sustainable** growth (more green)
- **Inclusive** growth (less inequality)

What should the State do?

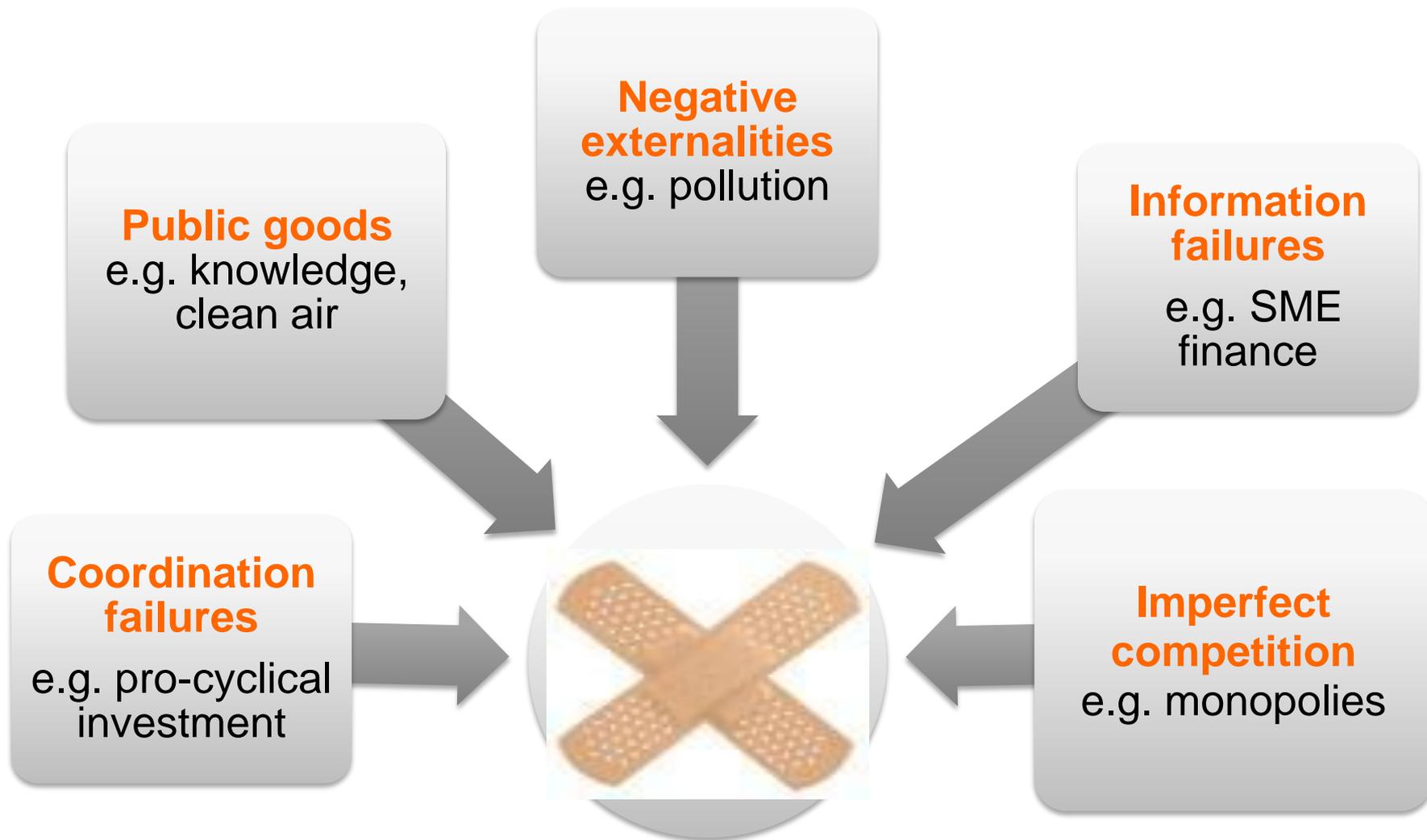
“Practical men, who believe themselves to be quite exempt from any intellectual influence, are usually the **slaves of some defunct economist**. ...I am sure that the power of vested interests is vastly exaggerated compared with the **gradual encroachment of ideas**.”

*John M. Keynes, **The General Theory**, 1936*

“The important thing for Government is not to do things which individuals are doing already, and to do them a little better or a little worse; but to **do those things which at present are not done at all**.”

*John M. Keynes, **The End of Laissez Faire**, 1926*

Policy as *fixing* market failures



A radically different view: *market shaping & creating*



“The road to free markets was opened and kept open by an enormous increase in continuous, centrally organized and controlled interventionism... **Administrators had to be constantly on the watch to ensure the free working of the system.**”

Karl Polanyi, 1944
The Great Transformation

'THIS IS A BOOK WHOSE TIME HAS COME'
—PROFESSOR DANI RODRIK, HARVARD UNIVERSITY

THE ENTREPRENEURIAL STATE



Debunking
Public vs. Private
Sector Myths



BY LEADING INNOVATION ECONOMIST
MARIANA MAZZUCATO

THIS BOOK DEBUNKS THE MYTH OF THE STATE AS A LARGE BUREAUCRATIC ORGANIZATION THAT CAN AT BEST FACILITATE THE CREATIVE INNOVATION WHICH HAPPENS IN THE DYNAMIC PRIVATE SECTOR. ANALYSING VARIOUS CASE STUDIES OF INNOVATION-LED GROWTH, IT DESCRIBES THE OPPOSITE SITUATION, WHEREBY THE PRIVATE SECTOR ONLY BECOMES BOLD ENOUGH TO INVEST AFTER THE COURAGEOUS STATE HAS MADE THE HIGH-RISK INVESTMENTS.

For more information, please visit the book's website: www.entrepreneurialstate.anthepressblog.com

Mariana
Mazzucato



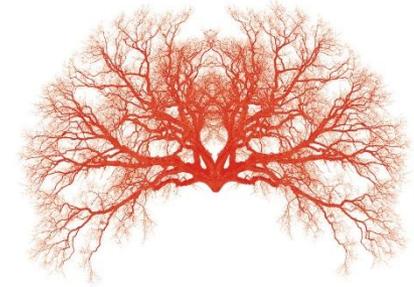
O ESTADO EMPREENDEDOR

Desmascarando o mito do
setor público vs. o setor privado



“Mazzucato argumenta que o investimento governamental, paciente e de longo prazo, é um pré-requisito indispensável para a inovação de impacto. [...] Mesmo se discordar do ponto de vista dela, você deve ler o seu livro. Vai desafiar seu modo de pensar”. *Forbes*

MARIANA MAZZUCATO



DAS KAPITAL DES STAATES

Eine andere Geschichte von
Innovation und Wachstum

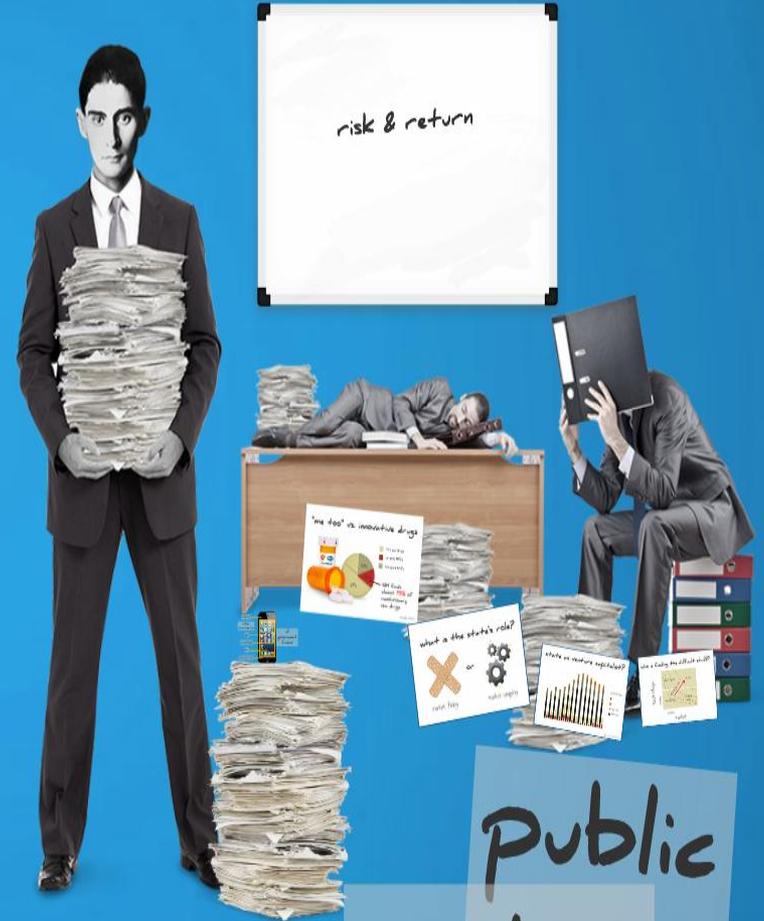
KUNSTMANN

the assumption



private
sector

where are the
european jobs?
vs.



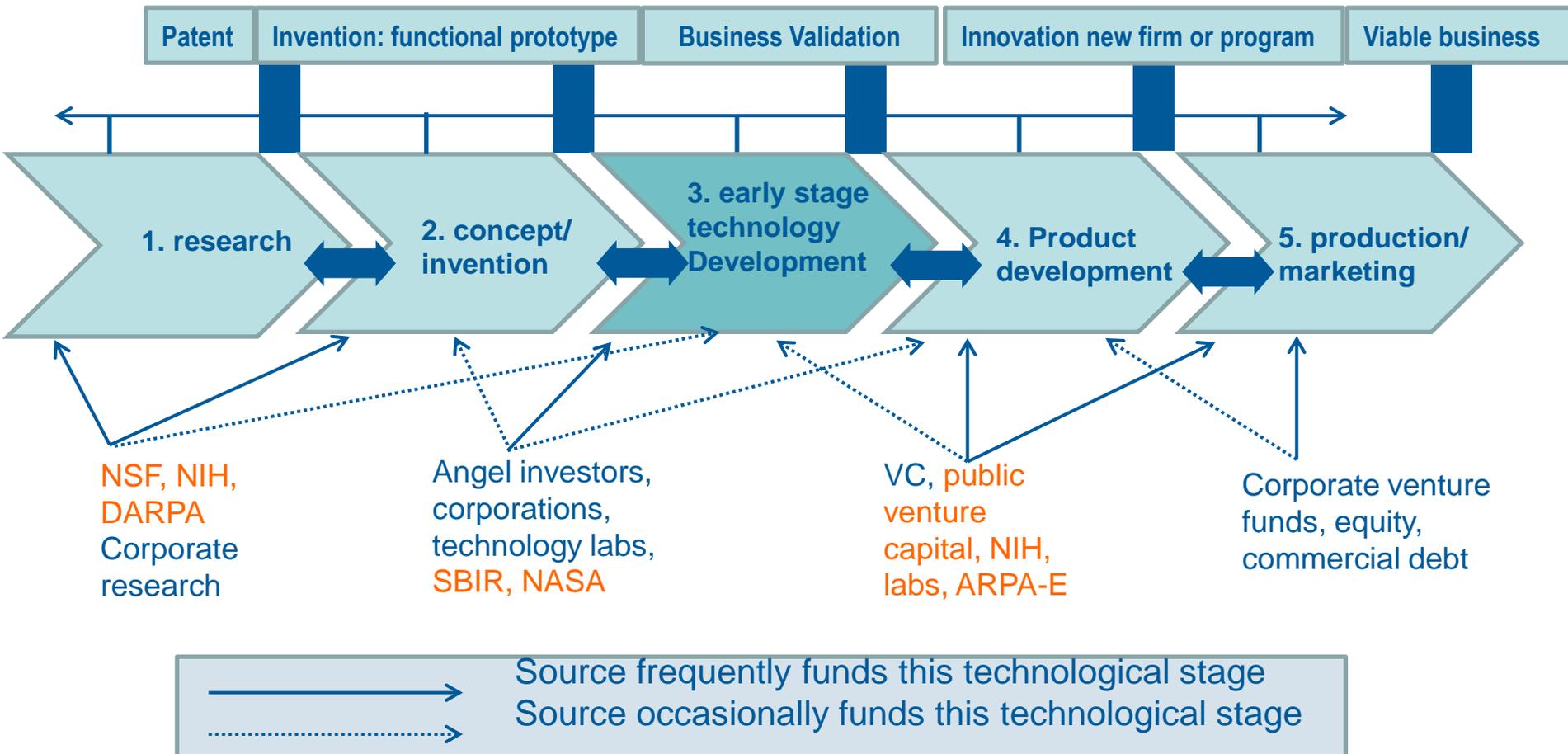
public
sector

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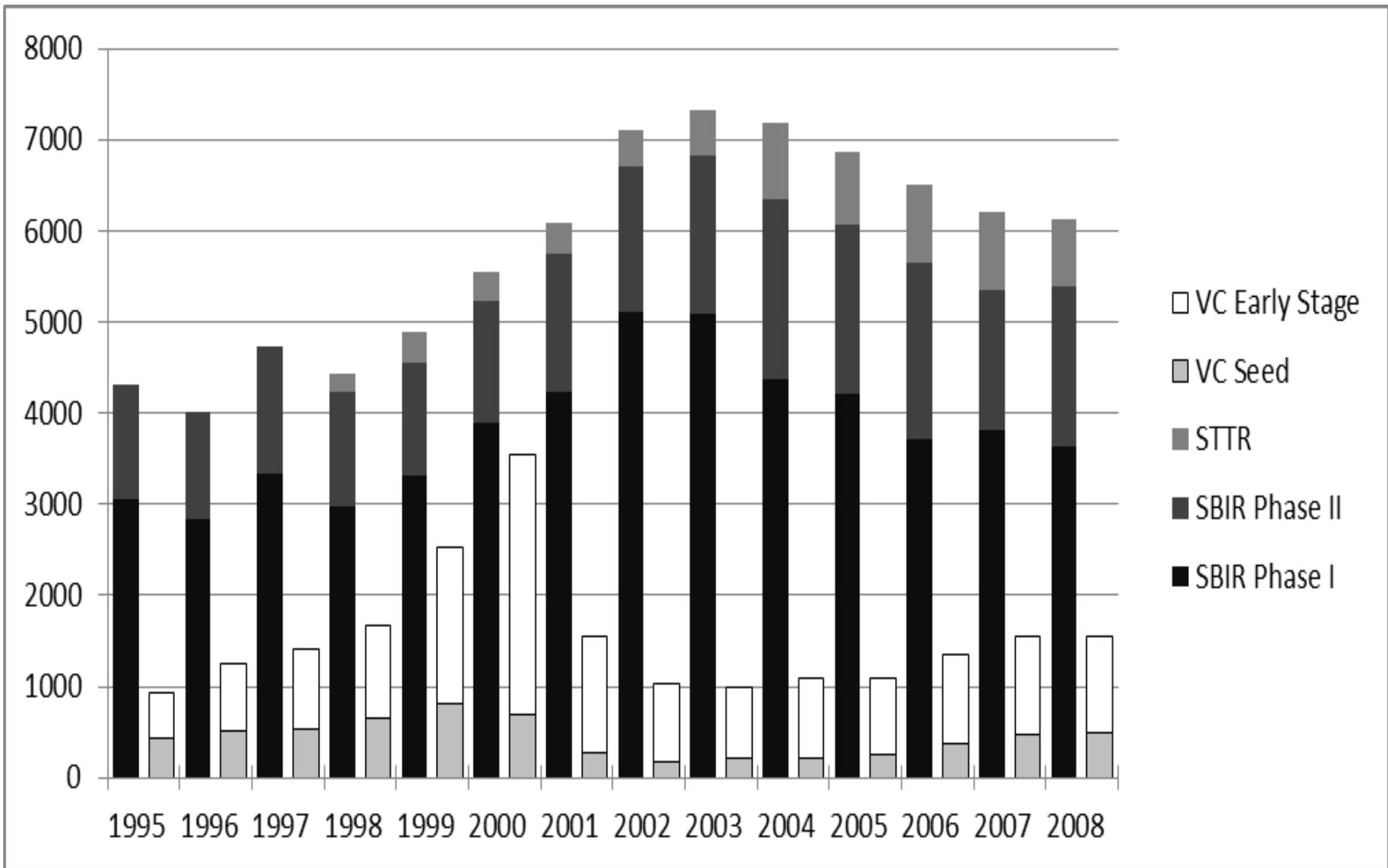
Market failure policies don't explain *General Purpose Technologies*

- 'mass production' system
- aviation technologies
- space technologies
- IT
- internet
- nuclear power
- nanotechnology
- green technology

Mission oriented finance along entire innovation chain

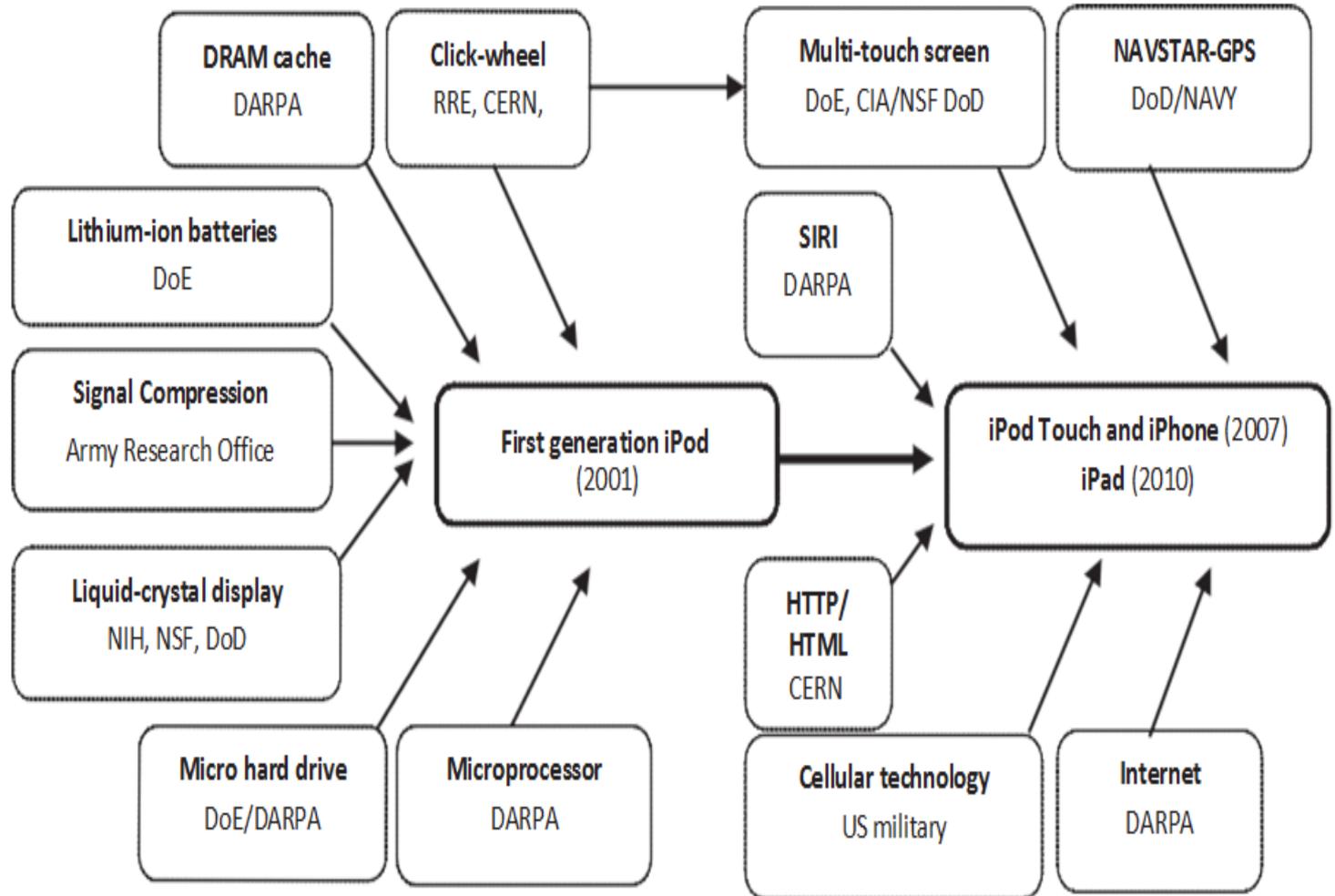


Private and Public (SBIR) Venture Capital



Source: Block and Keller, 2012

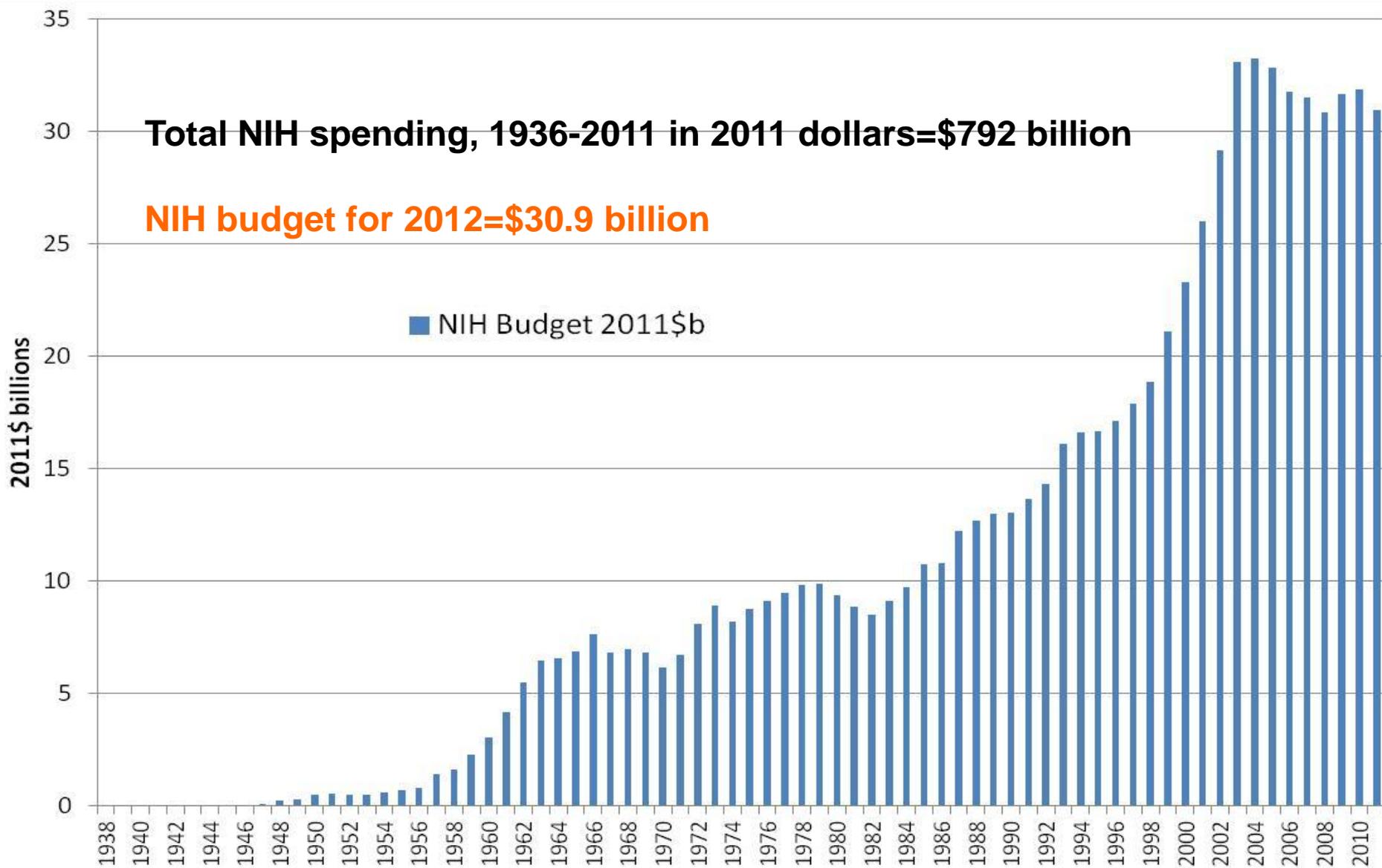
What makes the iPhone so 'smart'?



National Institutes of Health budgets 1936-2011

Total NIH spending, 1936-2011 in 2011 dollars=\$792 billion

NIH budget for 2012=\$30.9 billion





mission- oriented finance for innovation

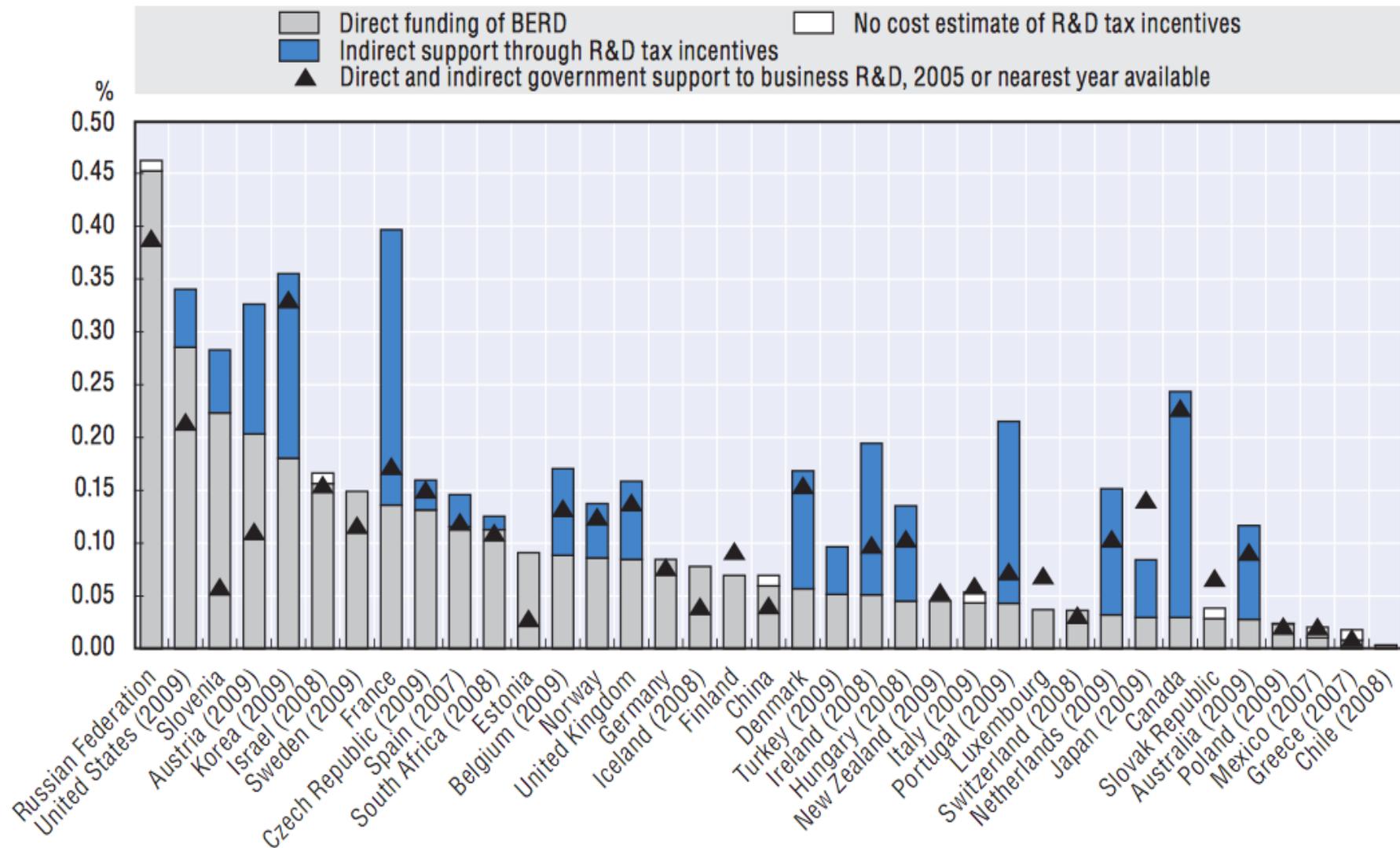
NEW IDEAS FOR
INVESTMENT-LED GROWTH

EDITED BY
MARIANA MAZZUCATO
AND CAETANO C. R. PENNA



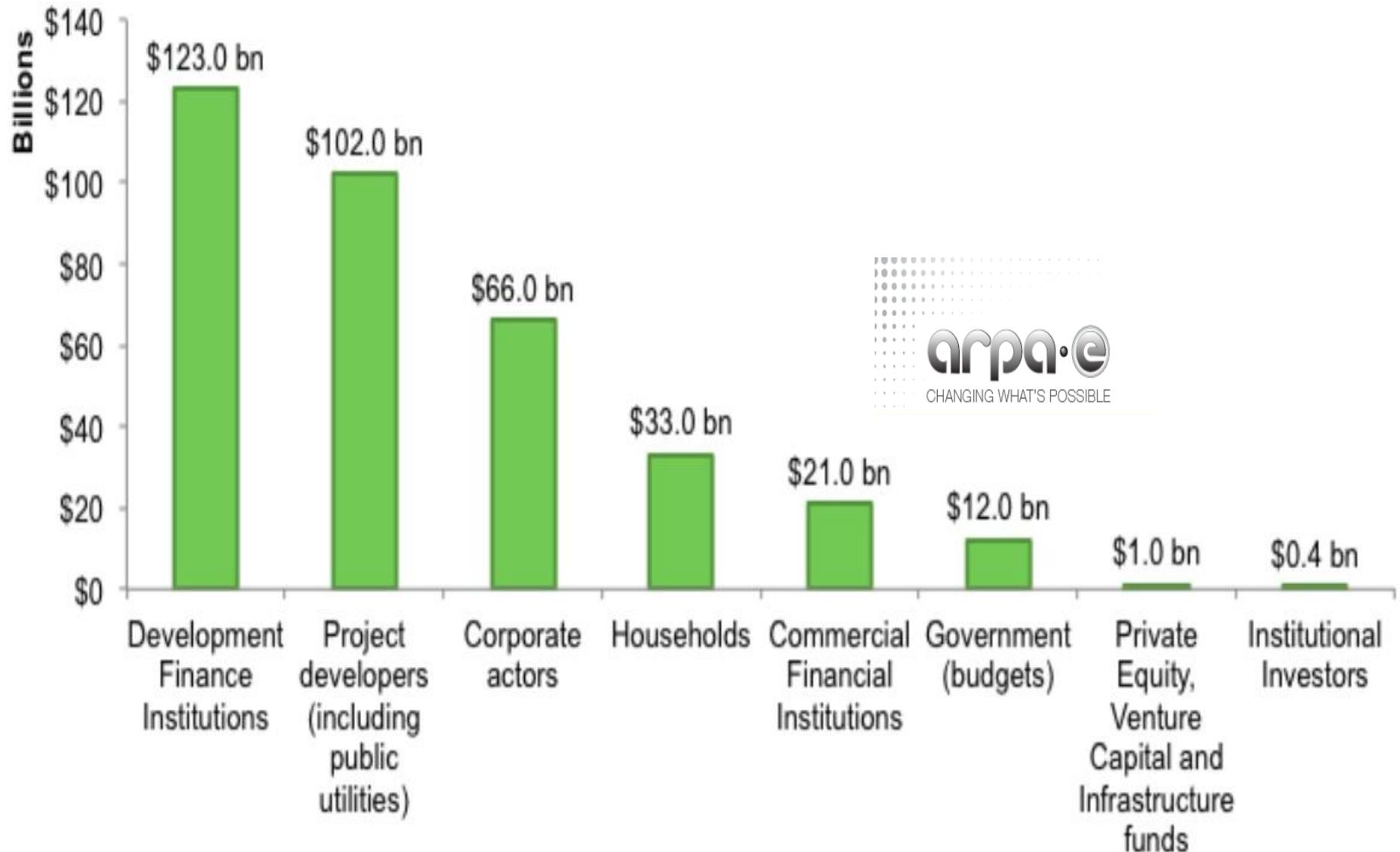
Direct government funding of business R&D and tax incentives for R&D, 2010

As a percentage of GDP



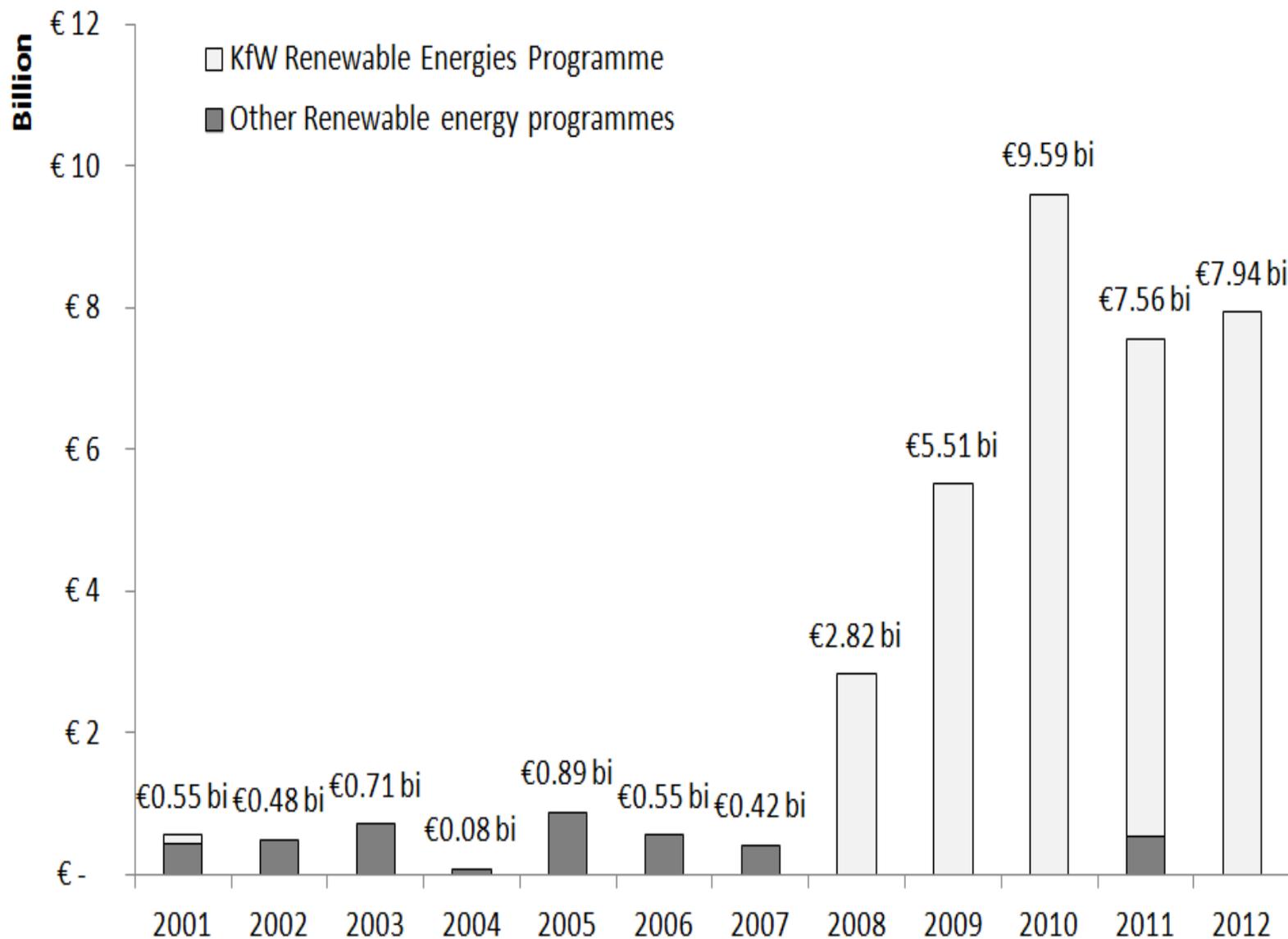
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Green tech public & private investments (2011)



KfW funding for industrial environmental and climate protection projects in Germany

2001-2012



China Development Bank

China's 2020 goal of producing 20% energy from renewables.

5 year plan includes \$1.7 trillion dollars in 5 new (green) sectors.

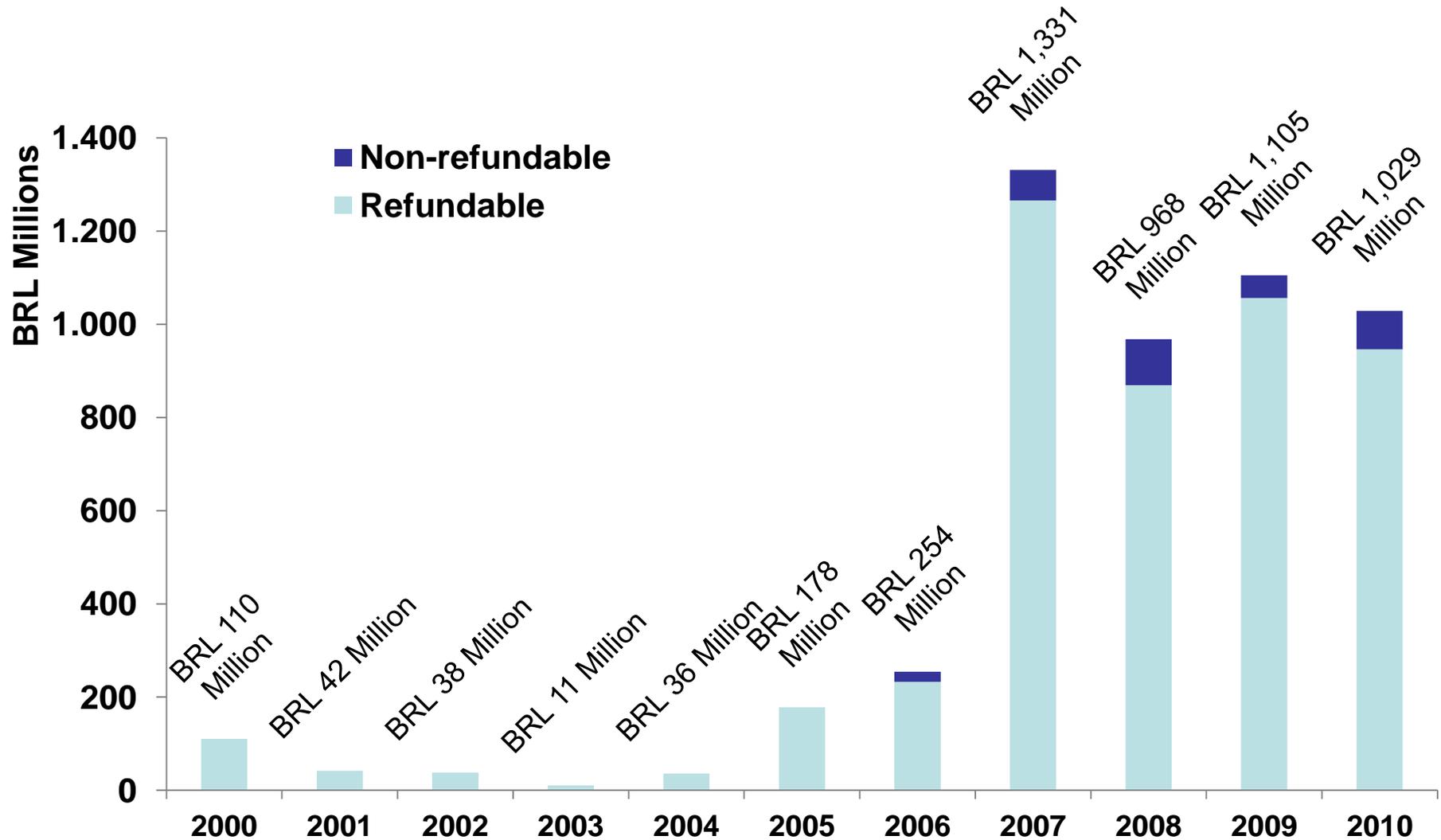
CDB founded **CDB Capital**, a 'public equity' fund with **\$US 5.76 bn to finance innovative start-ups** from the energy and telecom sectors.

Yingli Green Energy received **\$1.7 bn** from 2008 through 2012 with a **\$5.3 bn line of credit** opened for it. **LDK Solar (\$9.1 bn)**; **Sinovel Wind (\$6.5 bn)**; **Suntech Power (\$7.6 bn)**; and **Trina Solar (\$4.6 bn)**,

Patient committed finance has “allowed Chinese companies to further ramp up production and drive down costs” of renewable energy technologies

BNDES' Disbursements for Innovation

(in constant 2010 BRL Million)

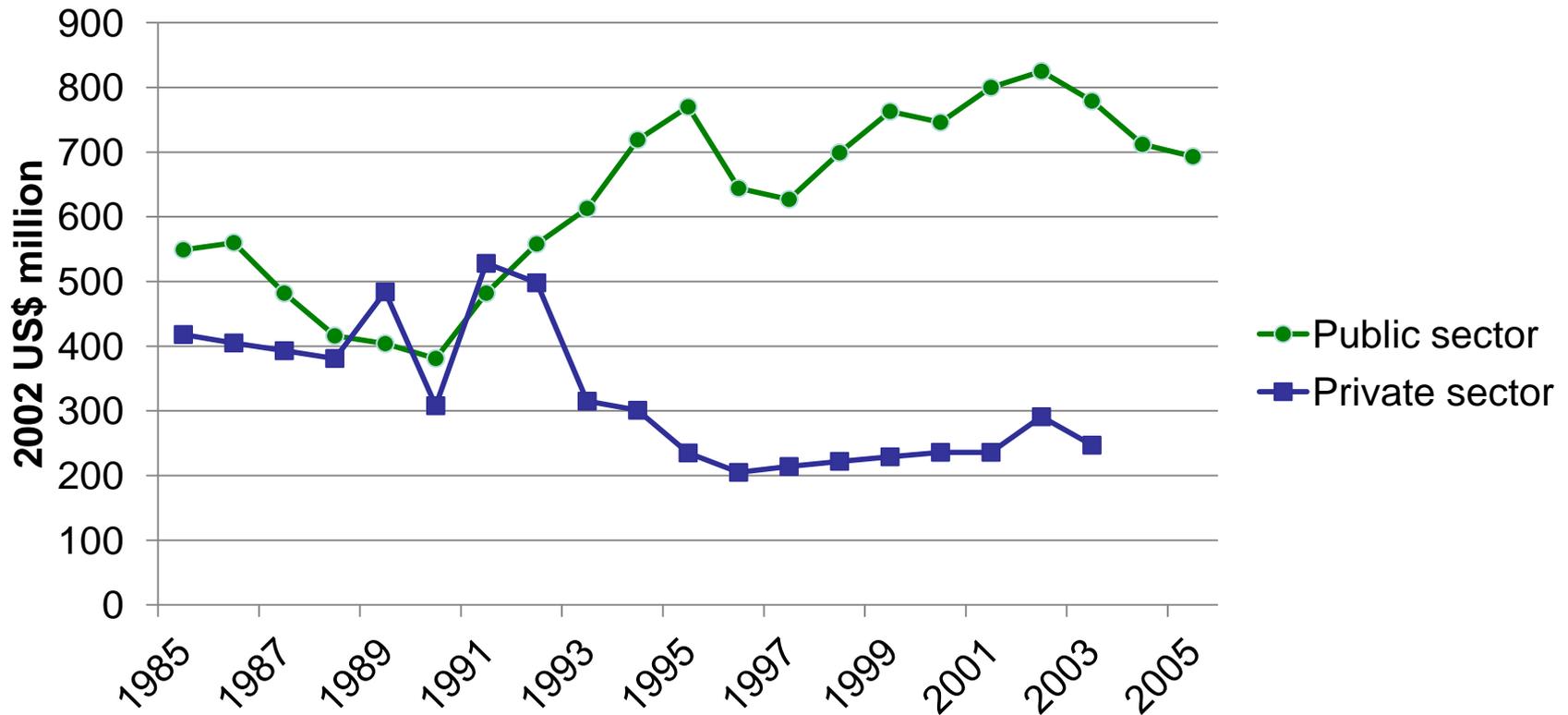


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Sharing risks *and* rewards

Where are energy's Xerox Parcs & Bell Labs?

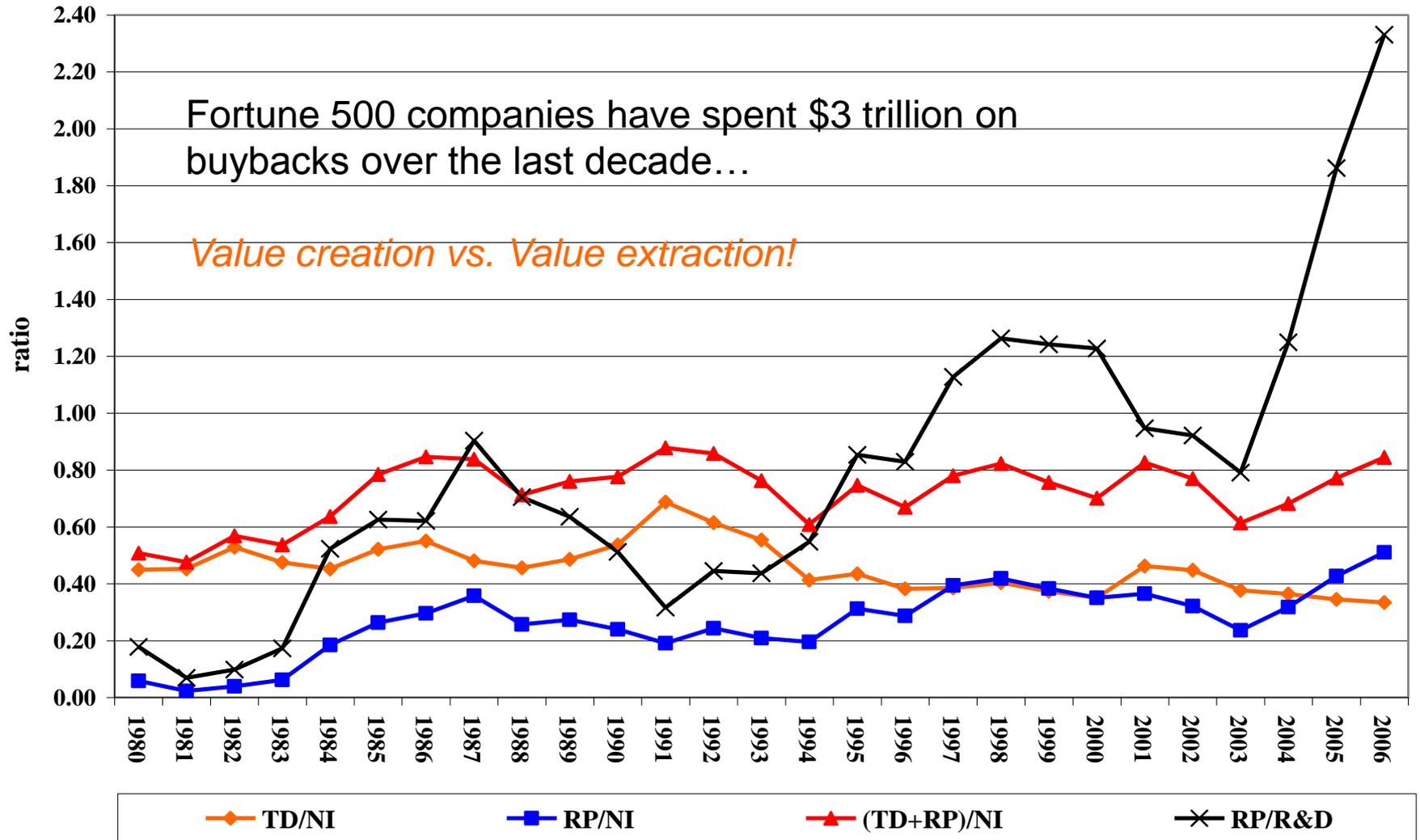
Renewable energy R&D investments in the U.S.
in million 2002 dollars



Source: Nemet and Kammen (2007), "U.S. energy research and development: Declining investment, increasing need, and the feasibility of expansion", *Energy Policy*, 35 (1), 746-755

Repurchases, dividends, net income, R&D 1980-2006

(293 corporations in the S&P500 in October 2007 in operation in 1980)



Source: Lazonick & Mazzucato, 2013; Lazonick, 2014

INCOME INEQUALITY IN THE UNITED STATES, 1910-2010



Source: Piketty, 2013

Warren Buffet

“I have worked with investors for 60 years and I have yet to see anyone — not even when capital gains rates were 39.9 percent in 1976-77 — shy away from a sensible investment because of the tax rate on the potential gain. People invest to make money, and potential taxes have never scared them off. And to those who argue that higher rates hurt job creation, I would note that a net of nearly 40 million jobs were added between 1980 and 2000. You know what’s happened since then: lower tax rates and far lower job creation.”

And....why did capital gains fall in 1976?



1%



inclusive
growth



Better 'deal' between public & private

- reforming tax system
- limiting share buybacks
- retaining golden share of IPR
- capping prices (Bayh Dole act allows it)
- income contingent loans
- retain some equity (Tesla & Solyndra lesson)
- % payback into an 'innovation fund'
- State investment banks

and more...(but where is the conversation?)

(discussed in Mazzucato, 2013; 2015)

New questions for economic policy

- ◆ **DIRECTIONS**. Policy as actively setting direction of change. How to foster a more democratic debate about possible directions (and stop useless worry about ‘picking winners’).
- ◆ **EVALUATION**. How to evaluate public sector market creating investments (pushing market frontiers)?
- ◆ **EXPLORATIVE ORGANIZATIONS**. How to build explorative public sector organizations that welcome trial and error?
- ◆ **RISKS AND REWARDS**. How to socialize both risks and rewards, with revolving fund for future innovation and welfare.

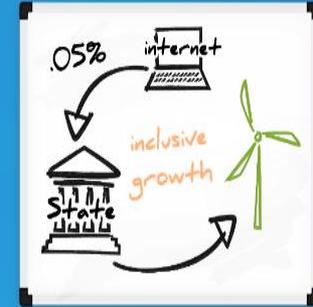
(discussed in Mazzucato, 2015)

think again!



private
sector

vs.



public
sector

Background references

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