Rethinking Capitalism: sharing both risks and rewards

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Don’t mess with Mariana, the world’s scariest economist

Admired by Bill Gates, consulted by governments, Mariana Mazzucato is the expert others argue with at their peril. Helen Rumbelow meets her.

Mariana Mazzucato is a key figure in the world of economics. She is known for her innovative thinking and her ability to challenge conventional wisdom. Her work has influenced many government policies around the world.

Bill Gates brought me out to Seattle to speak to him.

You should be scared.

If you’re an innovator you will make mistakes.

Mariana Mazzucato says she’s always been fascinated by how entrepreneurship shapes the world. She argues that to understand innovation, we need to look beyond traditional measures of GDP growth. She believes that public investment in research and development is crucial for long-term economic success.

If you’re an innovator you will make mistakes.

She is in a room with a man, a woman, and a child. They are all looking at Mariana. She is holding a book in her hand. She is wearing a red dress.

Mariana Mazzucato says that in order to create a more equitable and sustainable economy, we need to reframe our understanding of innovation. She argues that innovation is not just about technology, but also about social and cultural change.

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Financialisation has led to unbalanced growth
And the real economy is sick too.

Fortune 500 companies have spent $2.3 trillion on buybacks from 2003-2012 (54% of their earnings), with another 37% on dividends. (Lazonick, HBR 2014)
International Energy Agency estimates that an additional USD 1.1 trillion in low-carbon investments is needed every year on average until 2050, in the energy sector alone, to keep global temperature rise below 2 degrees Celsius.

This implies current investment IN GREEN ENERGY is only 20% of what it should be!
Yet...exciting context to rethink

• Rebalancing economies
• Directed growth
  – **Smart** growth (better innovation)
  – **Sustainable** growth (more green)
  – **Inclusive** growth (less inequality)
• Sustainable Development Goals
• Industrial policies to rebalance economy
1  Rethinking capitalism: an introduction
    Michael Jacobs and Mariana Mazzucato

2  The failure of austerity: rethinking fiscal policy
    Stephanie Kelton

3  The theory of money and macroeconomic policy
    Randall Wray and Yeva Nersisyan

4  The costs of short-termism
    Andrew Haldane

5  Innovative enterprise and the theory of the firm
    William Lazonick

6  Innovation, the state and patient capital
    Mariana Mazzucato

7  Investment-led growth: a solution to the EU crisis
    Stephany Griffith-Jones and Giovanni Cozzi

8  Inequality and economic growth
    Joseph Stiglitz

9  Paradoxes of privatisation & public-service outsourcing
    Colin Crouch

10 Innovation and the economics of climate change
    Dimitri Zenghelis

11 Capitalism, technology and a green golden age
    Carlota Perez
Set rules of the game and ‘level’ the playing field

De-risk, enable, incentivise, ‘facilitate’ private sector

Solve market and system ‘failures’

or….something more interesting?
Fixing failures

- Public goods e.g. knowledge, clean air
- Negative externalities e.g. pollution
- Information failures e.g. SME finance
- Coordinating failures e.g. procyclical investment
- Imperfect competition e.g. monopolies
the assumption

private sector

vs.

public sector
investor of first resort
markets are built.
markets are designed.
markets are outcomes.
boring theory of state leads to markets with:

- less innovation
- more rent-seeking
- more hoarding & financialisation
- more inequality
ROAR

ROUTES & DIRECTIONS. How to use policy to set direction of change and enable bottom up experimentation?

ORGANIZATIONS. How to build explorative public sector organizations that learn-by-doing, and welcome trial and error?

ASSESSMENT. How to evaluate public sector market creating investments (pushing market frontiers beyond ‘crowding in’)?

RISKS AND REWARDS. How to form new deals between the public and private sectors, socializing both risks and rewards?
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market failure policies don’t explain GPTs

- ‘mass production’ system
- aviation technologies
- space technologies
- IT
- internet
- nuclear power
- nanotechnology
- green technology
what makes the iPhone so ‘smart’?

Source: Mazzucato (2013), p. 109, Fig. 13
Total NIH spending, 1936-2011 in 2011 dollars=$792 billion

NIH budget for 2012=$30.9 billion

Source: http://officeofbudget.od.nih.gov/approp_hist.html
Green tech: state leads government follows

Figure 4: Risk-capital intensity classification of RE finance

Boundary of the present study: asset finance

- **Low Risk**
  - High Capital Intensity
    - (project finance/existing firms)

- **High Risk**
  - High Capital Intensity
    - (Hard to fund)

- **Low Risk**
  - Low Capital Intensity
    - (existing firms/bank debt)

- **High Risk**
  - Low Capital Intensity
    - (Venture Capital)

green tech public & private investments

(2011)

Source: 2011 Climate Finance Initiative
KfW funding for industrial environmental and climate protection projects in Germany
2001-2012

- KfW Renewable Energies Programme
- Other Renewable energy programmes

Billion

€12
€10
€8
€6
€4
€2
€ -

€0.55 bi €0.48 bi €0.71 bi €0.08 bi €0.89 bi €0.55 bi €0.42 bi €2.82 bi €9.59 bi €7.56 bi €7.94 bi

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),
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creating missions not fixing markets

**NASA**’s *mission* is to “*Drive advances in science, technology, aeronautics, and space exploration to enhance knowledge, education, innovation, economic vitality, and stewardship of Earth.*” *NASA 2014 Strategic Plan*

“*Creating* breakthrough technologies for national security is the *mission* of the Defense Advanced Research Projects Agency (*DARPA*).”

“The *ARPA-E mission* is to *catalyze* the development of transformational, high-impact energy technologies.”

“**NIH**’s *mission* is to seek fundamental knowledge about the nature and behavior of living systems and the *application* of that knowledge to enhance health, lengthen life, and reduce illness and disability.”

“The *mission* of the *KfW Group* is to support change and encourage *forward-looking ideas* – in Germany, Europe and throughout the world.”
We measure success by how many risks we have been willing to take (with inevitable failures) and whether the successes actually matter.

Cheryl Martin, ex-Director ARPA-E
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Businessmen have a different set of delusions from politicians, and need, therefore, different handling. They are, however, much milder than politicians, at the same time allured and terrified by the glare of publicity, easily persuaded to be ‘patriots’, perplexed, bemused, indeed terrified, yet only too anxious to take a cheerful view, vain perhaps but very unsure of themselves, pathetically responsive to a kind word. You could do anything you liked with them, if you would treat them (even the big ones), not as wolves or tigers, but as domestic animals by nature, even though they have been badly brought up and not trained as you would wish.

John M. Keynes’s private letter to Franklin D. Roosevelt, 1938
Measuring the *dynamising in* process
➤ **BBC** Charter Review: why not soap operas?

➤ Do **public banks** crowd out private ones?

➤ **Health**: why many drugs and so little life-style?
Direct government funding of business R&D and tax incentives for R&D, 2010
As a percentage of GDP

Business R&D spending (BERD)
From public goods to public values?

Public values are those providing normative consensus about (1) the rights, benefits, and prerogatives to which citizens should (and should not) be entitled; (2) the obligations of citizens to society, the state, and one another; (3) and the principles on which governments and policies should be based” (Barry Bozeman, 2007, 13).

From new public management’s fear of government failure, to enabling experimentation and capturing its effects.
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State

1%

internet

inclusive growth
Collective value creation

“Success is a product of having been born in this country, a place where education and research are subsidized, where there is an orderly market, where the private sector reaps enormous benefits from public investment.”  Bill Gates

“Society is responsible for a very significant percentage of what I've earned.”  Warren Buffett
value extraction vs. value creation

forthcoming: April 2018
INCOME INEQUALITY IN THE UNITED STATES, 1910-2010

Source: Piketty, 2013
“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?
And the real economy not much better!

Fortune 500 companies have spent $2.3 trillion on buybacks from 2003-2012 (54% of their earnings), with another 37% on dividends.

(Lazonick, HBR 2014)
Where are energy’s Bell Labs?

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

“I expect to see the State…taking an ever greater responsibility for directly organizing investment’ and ‘I conceive, therefore, that a somewhat comprehensive socialization of investment will prove the only means of securing an approximation to full employment”

JM Keynes, 1936
Better ‘deal’ between public & private

- reinvesting profits (and limiting share buybacks)
- retaining golden share of IPR
- capping prices (Bayh Dole act allows it)
- negotiating conditions (generics)
- income contingent loans
- retain some equity (Tesla & Solyndra lesson)
- % payback into an ‘innovation fund’
- State investment banks

(discussed in Mazzucato, 2015; 2016)
Think Again!

private sector

vs.

public sector
The Entrepreneurial State: (2013) M. Mazzucato

Financing renewable energy: who is financing what and why it matters (2017), Technological Forecasting and Social Change, M. Mazzucato and G. Semieniuk


