The Case for a New Regulatory Goal: Make Financial Markets Effective for the Real Economy

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This presentation is based upon "Innovativity, Financial Market Effectiveness, and US Economic Performance: 1850 – 2019", by Kevin R. James (LSE), Akshay Kotak (LSE), and Dimitri P. Tsomocos (University of Oxford)

The views expressed in this presentation are my own.

Why Innovation Policy Doesn't Work

- An economy's ability to innovate innovativity plays a crucial role in determining overall economic performance;
- A firm innovates by taking an *exploitable idea* and *transforming that idea into a new product or process*;
- What we do now: Focus on exploitable ideas

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- Endogenous growth theory is about the exploitable idea production function and so emphasizes the importance of R&D spending;
- Innovation policy is about increasing the supply of exploitable ideas by increasing R&D, increasing the supply of STEM labor, industrial policy, moon-shots, etc.;
- But: exploitable ideas **have not been and are not now** the binding constraint on innovation, and shifting out a constraint that isn't binding does not have much effect.

The Key to Innovativity

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- What matters: Transforming exploitable ideas into new products/processes;
- What it takes: Financial markets that work well;
 - Firms choose strategies to succeed given financial markets as they are;
 - When markets work poorly, firms pursue quick-win <u>Flash</u> strategies to signal that they have a good project;
 - When markets work well, firms pursue *Substance* strategies that entail less shortrun signaling and more focus on developing their projects' innovative potential;
 - Both Flash and Substance strategies take R&D, STEM skills, etc., but only Substance strategies lead to true innovation;
- How to get there: Regulation that aims to create effective markets;

We need a new regulatory goal:

Make financial markets effective for the real economy

Does Flash vs Substance Capture Something Real?

- The Flash vs Substance dichotomy is a bit abstract, but we believe that it captures an essential part of the economy;
- Arora, Belenzon, and Patacconi (2015) examine the composition of R&D spending at US firms and find that:

"Many large firms [are] becoming less reliant on internal research and more reliant upon external inventions...these patterns may also involve a greater emphasis on the "D" in R&D, and on short-term and incremental innovation, which often does not require large investments in science".

This contrast between **Science**-based long run R&D aimed at fundamental innovation and **Development**-based R&D that aims at quick wins is exactly what we want to capture with our *Substance/Flash* dichotomy;

Financial Market Effectiveness and Economic Performance

Measuring Market Effectiveness

- Market Effectiveness = The proportion of firms choosing a Substance strategy
- · As the proportion of firms pursuing *Flash* strategies increases, we find



- Measure of Market Effectiveness: 1 Standard Deviation of Idiosyncratic Monthly Firm Returns;
 - Control for transitory market shocks, etc.;

The Evolution of US Market Effectiveness



The Evolution of US Market Effectiveness

- Market effectiveness is at its natural rate in the unregulated PreWar period;
- 1930s regulatory reforms boost market effectiveness;
- Over time, regulation fails to keep up with market developments. Starting in the 1970s, market effectiveness drifts back down to its natural rate;
- It is crucial to monitor regulatory effectiveness, **not** regulatory compliance;
 - Firms still comply with regulations, but regulations are no longer efficacious;

TFP Growth: Exploitable Ideas or Market Effectiveness?



TFP Growth: Exploitable Ideas or Markets?

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- Average TFP growth has plummeted over the last 50 years;
- Plainly, this is not due to any lack of resources devoted to finding exploitable ideas;
 - R&D intensity has been increasing, and the proportion of STEM PhD in the labor force (normalized to 1 in the plot) has been increasing or flat;
 - Beating this dead-horse harder is not going to solve the productivity problem;
 - The evolution of market effectiveness does explain the evolution of TFP growth;

Solution: Fix markets so that firms find pursuing Substance strategies optimal.

Systemic Risk, Credit Booms, and Market Effectiveness



We estimate the probability of not observing a crisis in the Peak/Transition period assuming that fundamental systemic risk is the same as that in the PreWar and Post80 periods.

Systemic Risk, Credit Booms, and Market Effectiveness

- Credit booms increase systemic risk by significantly less when markets are effective compared to when they are ineffective;
 - Gorton and Ordonez (2019) provide a mechanism;
- The small Financial Stability Win;
 - MacroPru reduces systemic risk by hammering on credit booms, which adversely affects growth;
 - MacroPru is still on net beneficial, but not by as much as one might think;
 - Belkhir, Naceur, Candelon, and Wijnandts (2020)
 - The **Big** Financial Stability Win;

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 Improve market effectiveness so that credit booms are an opportunity rather than a risk;

There is not—or, rather, there does not need to be—a Growth/Stability Trade-Off

What To Do

- Continuing slow productivity growth and/or another major financial crisis will be an economic, political, and social catastrophe for the UK. We need to solve this problem;
 - In 2008 the Queen came to the LSE and (gently) chastised us for not seeing the GFC coming;
 - You are all here at the LSE now, and we are not making that mistake again. So, consider yourself warned: the crisis is coming;
- With a crisis coming, there is wisdom in taking FDR's advice:

"The country needs and, unless I mistake its temper, the country demands bold, persistent experimentation. It is common sense to take a method and try it: If it fails, admit it frankly and try another. But above all, try something."

> Franklin D. Roosevelt (1932), Address at Oglethorpe University in Atlanta, Georgia

Option 1: Round Up the Usual Suspects

- The usual suspects being R&D tax credits, industrial policy, ...;
 - See Bloom, Van Reenen, and Williams (2019) for the mug shots;
- I don't think that this will work...But, hey, I could be wrong!
- Let's go into this with eyes open, though: Making the R&D/Industrial Policy bet is going to cost the UK billions of pounds per year;

The UK Financial Regulatory Structure: An Opportunity



Option 2: Option 1 + A Regulatory Moonshot!

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- Our analysis (and other presentations at this conference) suggests that improving financial market effectiveness could substantially boost innovativity and UK economic performance;
 - This financial regulation moonshot will cost almost nothing in comparison to the Usual Suspects bet. So, it will be possible to do 99.999% of what the UK is going to do anyway and also make a serious effort at improving financial market effectiveness;
- If more R&D spending is a bet worth taking, then a serious effort to improve financial market effectiveness has got to be worth a roll of the dice;
- To get those dice rolling, I suggest that HMT commission myself and my Systemic Risk Centre colleagues to write a report on:

Making Financial Market Effectiveness a Core Regulatory Objective: Why It Makes Sense and How to Do It

Further Information

- Dimitri, Akshay, and I will be delighted to talk with you about these ideas and the underlying research;
- Our paper will be up on SSRN shortly, but email me if you would like an advance copy;
- If we do not get to your question in this session, or if you have additional thoughts or comments, leave them in the chat or email me;

References

- Arora, Belenzon, and Patacconi (2015), "Killing the Golden Goose? The Decline of Science in Corporate R&D", NBER Working Paper 20902
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- Bloom, Van Reenen, and Williams (2019), "A Toolkit of Policies to Promote Innovation", *Journal of Economic Perspectives* 33(3)
- Gorton and Ordonez (2019), "Good Booms, Bad Booms", Journal of the European Economic Association 18(2)

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