

Discovery Meeting Background Note

IS THE FINANCIAL SYSTEM FIT FOR PURPOSE?

14.00 to 18.00 on 23rd January 2018 at The National Institute of Economic and Social Research

The main function of financial systems is to facilitate the allocation of economic resources across time and space. While the main benefits of finance are therefore indirect, the connection to almost every economic transaction means that its functioning is central to macroeconomic performance.

Over the past twenty years, the ratio of financial assets to GDP or real assets has risen dramatically, despite the Global Financial Crisis (GFC).¹ We do not know the counterfactual, but given the GFC, it is questionable that this has enabled better risk sharing, better resource allocation or better economic performance. The purpose of this Discovery Meeting is to look for new ideas and research questions to address how a financial system might better support macroeconomic objectives.

1. Finance and Institutions

James Tobin coined the term ‘functional finance’ to describe how financial services support economic activity. Households and firms do not *directly* benefit from financial services (unless they enjoy gambling) but they benefit *indirectly* by financial services enabling payments, management of risks, the mobilisation of savings and the allocation of funds to productive uses. How well financial systems perform these functions can be viewed as its ‘functional efficiency’.

While the functions of finance are fairly constant over time, the institutions that provide the functions evolve and differ markedly from one country to another. Once imperfect and incomplete markets are introduced into macroeconomic models, this leads to institutional arrangements having an impact on ‘functional efficiency’. As frictions and market structures evolve with innovation, this means that institutions and markets are also evolving.

Given the importance of finance for macroeconomic outcomes, the structure of financial institutions is an appropriate part of financial policy. Yet there are almost no public discussions of alternative institutional arrangements. Some of these institutional structures matter greatly to citizens; for example, the supply of housing finance, student loans and stability of banks. After the Great Depression in the US, legislators largely redefined the institutional structure of the financial system.

Questions to consider include whether ‘the functions of finance’ is a helpful framework to assess the performance of financial systems? What is the best way to contrast the pros and cons of different institutional structures for macroeconomic performance? Does the complexity of dealing with multiple frictions and constraints require an alternative framework than the mainstream macroeconomic model? What alternative methods may be appropriate to compare institutional structures? Why is there so little open discussion about the institutional structure of our financial system and what should be the priorities?

¹ For example, the value of stocks traded to GDP has risen five-fold and global debt to GDP has risen from 160% to 325% in 2016 (only one-sixth is government debt). The notional amount of derivatives has risen from \$94tn in 2000 to over \$500tn last year.

2. Finance and Stability

The greater frequency and high cost of financial crises are well documented. At least two of the 'functions of finance' fail: management of risk and allocation of savings. Smets and Wouters (2016), authors of the canonical model used by many central banks, confirm that the fall in GDP during the crisis was outside the predictive range. There were notable models of financial instability before the GFC, and considerable progress has been made since, but many important issues remain.

Mainstream models do not have a convincing account of debt accumulation and its consequences. Debt is often between households (rather than firms) and often associated with housing finance and inequality. While net debt may be zero, economies with more debt are likely to be more vulnerable. This suggests that history matters, implying that the system may be statistically unstable. Household debt forgiveness is rarely included in crisis resolution and growing out of debt is invariably slow.

In our world of radical uncertainty, market values based on information efficiency are unlikely to coincide with value based on an asset's true pay-offs. The 'no arbitrage' principle can generate assets contingent on market values of other assets, and may be one reason for the increase in size of financial markets. This is often described as 'financialisation' – profits arising from refinancing rather than producing goods and – which may increase with digitalisation - and may increase volatility.²

Financial instability in economics is often based on random changes in expectations unrelated to fundamentals ('sunspots'). Yet even the fall in house prices financed by sub-prime mortgages was endogenous. Banks which run down invariably are shown, ex post, to have impaired balance sheets. Many practitioners accept that risk is created within the system. In which case reliance on 'sunspots' may drive an inadequate policy response by failing to address the initial cause of the fragility.

Can we define or measure financial stability as an appropriate objective? The regulatory response relies on greater competition. Yet greater competition may be no more consistent with stability than during Thomas Gresham's day – five centuries ago. Can financial stability be achieved without a cultural change in the finance industry and how can this be realistically achieved? How can we make artificial intelligence more auditable? What is the right approach to financial instability in macroeconomics?

3. Finance and Monetary Policy

In the 1990s, central banks gained operational independence to deliver inflation targets. This was influenced by the New Classical School which implied that there was no long run trade-off between inflation and unemployment. Technocrats could be delegated the task of anchoring expectations without making any welfare trade-off. Yet the Phillips Curve appears to be either flat or non-existent, which calls into question the rationale for independence.

Exceptional monetary policy has left The Bank of England owning one-third of government debt. Yet this policy was carried out on an experimental basis: our understanding of how the policy works has changed dramatically since being introduced. This raises two issues. First, the distributional consequences were not considered when the policy was introduced. Second, the bank is now exposed to losses if bond prices fall which will involve tax payers' money.

The enormous increase in bank reserves has coincided with a sharp fall in the money multiplier. While many suggest that this is based on an antiquated view of money creation, are we confident that the break-down is permanent? The view of money creation whereby loans create the money

² Financialisation can be applied to transactions from strategic pricing of train tickets to complex derivatives.

supply suggests that central banks have little monetary control. Given the historical correlation between money and inflation, this breakdown is not well understood and at odds with central bank control.

Macroeconomists usually assume a direct link between the policy rate and demand. Yet the intermediation passes through money markets and institutions. The spread between the policy rate and the borrowing rate is endogenous and can generate amplification processes. For example, in a downturn, a bank chief may decide to call-in loans possibly offsetting any monetary easing. In the past, central bankers would intervene in commercial decisions if necessary.

In what ways could central bank independence and the activities of the central bank in the private sector change the effectiveness of the financial system? What are the exact influences of the central bank on the functioning of the financial sector? How do we reconsider models of financial markets to include central banking to closer describe observation and the behaviour of central banks?

4. Finance in an Open Economy

During Bretton Woods, cross border capital flows were limited to allow governments to address domestic concerns. Floating exchange rates were thought to allow governments to continue to address domestic concerns. However, the enormous increase in cross border claims and financial flows appears to have created a global credit cycle with highly correlated returns across national markets.³ The international connectivity was probably the defining feature of the GFC.

The Bank of England estimates that 75% of movements in UK bond yields are driven by international factors. Even before the crisis, UK institutions would raise finance in the US (swapping the currency risk). This challenges the extent to which domestic policy can deliver domestic economic goals. This has been particularly problematic for Emerging Markets for many years. It is unclear how this can be reflected in macroeconomic models.

All countries are not equal in international finance. The US is the hegemon, as made clear by the necessity of dollar swaps lines agreed between the Federal Reserve to six 'friendly' central banks in 2008. Correlations show that US monetary policy influences market conditions in other countries but not the reverse. Economists struggle to find evidence of the economic benefit of cross border capital flows (except threshold arguments). The IMF and WTO appear to be losing international support.

Technology may further obscure national boundaries. The advent of cloud computing loosens the link between location of transaction and settlement. The 'home' of various transactions is no longer clear and accordingly, who is responsible, where should taxes be paid and which authority is the ultimate backstop? Decentralisation and pools of liquidity within institutions could greatly complicate the regulatory environment.

What new challenges does an increasingly interconnected global financial system pose for understanding how it functions? How do we explain the transition mechanisms between foreign factors affecting the domestic economy in light of global imbalances? Does this make it harder for some governments to meet their macroeconomic objectives? If technological progress blurs borders, how do countries regulate finance – let alone agree on the right regulations?

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³ For example, BIS cross border claims increased from 150% of GDP in 1995 to 450% of GDP in 2015 and FX turnover is 100 times the cross border flow of goods and services.