What are the main data issues arising from the crisis?

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The Great Depression in the 1930s sparked a sea change in the desire to manage macroeconomies internationally. A less well remembered element of efforts to improve public sector control over economies was a push to strengthen the authorities' capacity to measure and track economic developments. In the UK an economist - Richard Stone - worked in the Office of the War Cabinet to develop a set of accounts of the UK economic situation. Keynes – who Stone was working for at the time – approved of them. They were included in the 1941 budget. The Chancellor of the Exchequer said that they did not set a precedent. But these national accounts rapidly became a feature of economic policy making. Stone also worked with others in the US and Canada, with early international discussions on national accounts held in 1944. In 1984 Stone received the Nobel Memorial Prize in Economic Science – belated recognition of the importance of his work to policymaking.

Crises always present an opportunity for change. This crisis is prompting new thinking on how the authorities should manage risks in the financial system. It is also a chance to think about whether we have the right information to do that.

In my remarks I would like to make some brief introductory comments in three areas:

1. Structural changes in the financial system

There have been some striking structural changes in the financial system in recent years which have consequences both for its behaviour and for the information we need to understand it. While there will be considerable variation in experience across countries, at a general level some of the key trends have been:

(a) Larger banks. Assets of major financial institutions globally have roughly doubled since the start of this decade. If the resilience of these institutions is compromised, spillovers to the financial system and the real economy are likely.

(b) Greater interconnectedness. Interdependencies among institutions (both banks and non-banks) have increased markedly in recent years. Interlinkages can arise in a variety of ways, including via direct credit exposures and via participation in common markets. This means that prospects for individual institutions cannot be assessed in isolation of others in the network.

(c) Globalisation of financial activity. Greater size and interconnectedness partly reflect globalisation of financial activity. Good quality cross border information is needed to understand developments in the financial system.

(d) Greater complexity: Innovation has contributed to greater complexity in the system. For example, securitisation has allowed for distribution of risks while creating

[1] This note draws heavily on work by others at the Bank, including "Rethinking the financial network", Speech by Andrew G Haldane, April 2009, and the June 2009 Financial Stability Report. The views expressed in this paper though are those of the author and not necessarily those of the Bank of England.

long, interweaved chains of often opaque linkages between different participants in the financial system. This innovation creates new information demands.

2. Gaps exposed by the crisis

Thousands of pages have been written on this crisis already and much of its evolution is familiar. In looking for data gaps, it seems that in some areas policymakers did quite well in identifying sources of problems. For example, the Financial Stability Forum in its London meeting in 2005 noted that:

"*Continuing developments…..could over time lead to strains in financial markets. These included low levels of risk premia and long-term interest rates, increased exposures to complex and illiquid products, rising household sector indebtedness, and persistent or growing external and fiscal imbalances. Members noted the importance of market participants, supervisors and policymakers taking an appropriately medium-term view of risks and paying particular attention to ensuring the adequacy of market discipline, credit and operational standards, and levels of provisioning.*"

Where I think authorities did less well collectively was in anticipating the breadth, speed and severity of the impact of the crisis. That is linked to a failure to understand fully the impact of the structural changes highlighted above for the transmission of shocks. The initial shock was modest and localised – a sharp deterioration in subprime credit quality. But it spread globally and rapidly because innovation had allowed dispersion of risks but information about the location of risk exposures had not kept pace. Uncertainty was critical in propagating the crisis. Problems spread across a range of securitised instruments as investors realised they had little idea about the credit quality of the underlying exposures. Securitisation markets ground to a halt. And interbank funding markets broke down as institutions became uncertain about their own contingent funding needs (including to other institutions in the network such as SIVs and conduits about which information was sparse) and about the potential problems faced by their counterparties. As institutions faced balance sheet pressures, and sought to raise funds through asset disposals, liquidity dried up across a number of markets. The size of bank balance sheets (and of the financial system overall) meant that problems in the financial system had severe macroeconomic and fiscal consequences.

3. Filling data gaps

There is clearly a lot to do to address gaps exposed by the *past* crisis. In doing so it's important to make sure we also tackle gaps that may well be exposed by the *next* crisis. The precise data needs will vary across countries, given differences in accounting rules and current reporting requirements. But there are I think two broad areas to focus on to improve our understanding of the system:

(i) Better information on key nodes in the financial network.

There have been clear improvements in bank disclosure through the crisis, not least as a result of work by the FSB to develop disclosure templates. To tackle gaps that emerge in the future we will need more granular and regular disclosure by banks. Pillar 3 should provide a richer array of data, including on exposures to off balance sheet vehicles/contingent warehousing exposures etc. A clear area for improvement is on

firms' liquidity risk profiles, where we need more frequent, quantitative information about liquid asset holdings; key funding dependencies; and contingent funding needs.

The type of information disclosed also needs to change. End period data provide only a partial view of the position of institutions. Period averages and highs-lows can enrich our understanding of developments. Information could also be more forward looking. Better disclosure of stress tests and sensitivity analyses is needed to help understand how the system might behave in an inherently uncertain future.

Enhanced disclosure by banks needs to be complemented by improved information on other key participants in the financial system. Information requirements should be related to the importance to understanding behaviour of the wider system.

Better disclosure is needed, not simply *more* disclosure. We do not know which data will be needed in future incipient crises. That is why it is important that banks improve their capacity to supply information promptly as needed – firms need to invest in better systems so that their own management and others can understand their exposures.

(ii) Better information on the links in the network

Looking at the balance sheets of key players alone will not help us understand how systemic risks might develop. We need better information on interlinkages if potential spillovers across the financial system are to be identified and gauged.

That suggests we need to develop better data on exposures between institutions. We should consider enriching existing large exposure data. We also need better information on trading activity, including on the key participants in markets, volumes traded etc – to identify build ups of risk in markets. Here we may be able to tap central repositories of information such as exchanges, clearing corporations and registries.

We can also improve our data on financial linkages between sectors and across borders. There is a case for collecting data across a broader range of countries and markets to construct an improved map of the domestic and international flow of funds.

Conclusions

I started by mentioning Richard Stone and his national accounts. We are probably in a similar position now, with authorities looking to take much more control over financial systems and their evolution, but with information that is not yet up to that task.

In future work, the international dimension will be key given the interconnections in our globalised financial system. There are lessons from elsewhere too (as others at the Bank have noted). The swine fever outbreak has highlighted the role of the World Health Organisation's global alert and response system. This brings together myriad institutions internationally to share resources and better identify and manage outbreaks. They are able to move quickly, pool knowledge, and respond in a coordinated way to deal with the rapid spread of the virus. We should probably look to them for lessons on how we can do likewise to identify and manage financial contagion.