## WHAT DATA DO WE NEED TO FORM A BETTER PICTURE OF THE UNDERLYING HEALTH OF SYSTEMICALLY IMPORTANT FINANCIAL INSTITUTIONS? WHAT IMPROVEMENTS IN DISCLOSURE ARE NEEDED TO PROVIDE THESE DATA?

Forecasting is difficult, especially when it concerns the future. Forming a well-informed picture of the underlying health of systemically important financial institutions essentially is forecasting and is not likely to be easy either.

When assessing the health of financial institutions, one essentially can take three approaches. The first is to look at **regular supervisory measures**. What is capital adequacy of an institution, what is the supervisory assessment of capital adequacy (for those jurisdictions that have implemented Basel II: what is the outcome of the SREP, the supervisory review and evaluation process, often better known as pillar 2). I am not going to discuss such approaches in more detail. The main reason for not doing so is that this approach mixes idiosyncratic and systemic elements: it focuses on individual institutions by nature. Moreover, inherent risk and risk mitigants (like capital) are combined in such an approach.

A second approach is looking at what I on my first slide call "**late warning indicators**". Traditional late warning indicators are delinquencies and provisions. They have the obvious merit of being closely and intuitively linked to the underlying health of an institution. The disadvantage is that such measures only point at risks when they materialise and what we are looking for is an earlier indicator of health. In an ideal world the late indicators would be a backstop only, that we use to make sure that we haven't missed any important signals. In my opinion and experience, this is also the case with more modern mechanisms like CDS spreads and information we can find on the internet. Again, monitoring this information is important but such indicators are most likely to inform us *when* the outside world becomes aware of a problem rather than *where* the problems in the system reside. I am saying nothing new when I add that false signals seem to be closely linked to the application of such measures based on public or market perception and that, unfortunately enough, false signals can be as important as true indicators.

My third and final approach is to start from the underlying **risk drivers**. Most importantly we should focus on drivers of systemic risk.

Building up **leverage** is a first important risk driver. Unfortunately leverage is hard to measure. A simple leverage ratio definitely does not capture leverage. By looking only at assets, we ignore off balance sheet activities. Different balance sheet items may differ substantially in their inherent leverage. When a bank holds the first loss tranche of a securitisation on its books the inherent leverage is more or less identical to the leverage created by the full pool of underlying assets. From a practical perspective accounting rules and netting of long and short positions may distort the picture. Information on gross exposures is seriously lacking especially for proprietary trading activities of banks. In the end of the day, a measure of the leverage of the system as a whole may be a better indicator of the health of systemically important financial institutions than measures based on individual institutions activities and exposures.

Institutions become systemically important by being exposed to common risk factors and by being closely intertwined. This brings me to my second and first risk drives: **risk concentrations** and **interlinkages**. Let me be frank, risk concentrations are nearly impossible to identify. To some extent identifying them is an exercise in creativity rather than science. It would be helpful, however, if we had access to more of the information we need to feed our creativity. Somewhat ironically, risk mitigants can be important sources of concentration and interlinkages. More information on collateral and guarantees (in the broad sense of the word) could help us move forward here. It seems relevant to

observe that such measure interact with leverage. Guarantees and collateral may help banks to build up "invisible" leverage that could well exceed their own leverage targets or risk appetite.

**Mismatches** also make institutions more vulnerable. We are all aware of the liquidity risk caused by maturity mismatches. Duration mismatches create exposure to a common (interest) rate risk factor. Currency mismatches also cause risk concentrations.

We may even go one step deeper and assess how leverage and risk concentrations may reach excessive levels. **Herding behaviour** is one common explanation. Multiple market participants underestimate risk simultaneously, they may well underprice risk and for instance liquidity simultaneously. Moreover, multiple market participants may invest in similar assets and use similar risk mitigants, possibly without assessing the validity of their behaviour. This causes risk concentrations to develop across balance sheets. Again, focussing on market data may be necessary. We could also reverse our perspective and look at returns. If returns are "too good to be true" risk may be seriously underestimated.

Finally we could focus on the **moral hazard** dimension. Do we have indicators that institutions become more dependent on **bail-out**. Size of institutions or share of individual markets may be an indicator. Reductions in franchise value could be an indication that moral hazard is increasing. Interlinkages again show up. Finally, we may want to assess composition of capital more systemically both as a positive indicator (contingent capital reduces moral hazard, although it may increase interlinkages) and as a negative indicator (non-core capital and generally speaking capital instruments that do not provide going concern loss absorption could increase moral hazard).