Yves Mersch: Productivity in the financial services sector

Opening remarks by Mr Yves Mersch, Governor of the Central Bank of Luxembourg, at the BCL-SUERF Conference on "Productivity in the Financial Services Sector", Luxembourg, 11-12 November 2008.

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It is my pleasure to welcome you on behalf of the Banque centrale du Luxembourg. You probably know that ours is a relatively young institution and hat we are hosting this conference as part of the celebrations for our 10th anniversary. You are here to discuss productivity in financial services, and you re probably aware that tomorrow evening (following the end of this conference) here will be a High-Level Panel where three senior central bankers will provide heir perspective on the challenges for monetary policy represented by financial sector growth and productivity. We hope this will give you a chance to see how some of the issues raised in your research are implemented in practice and also how new issues appear in the policy context requiring further study. In any case, you are warmly invited and I hope at least some of you will be able to stay with s for this interesting discussion.

The subject today is productivity in the financial sector, and as a central banker, I o not need to remind you that this sector is going through what are sometimes called "interesting times". During the recent financial turmoil, central banks responded to short-term tensions and contributed to stabilising conditions for borrowers and lenders. The focus until now has been on liquidity and financial stability issues; however, as light appears at the end of the tunnel, policymakers are asking themselves how to avoid repeating the same mistakes next time. An overhaul of the regulatory framework seems inevitable and in this context, it is crucial to understand the structural issues in the sector behind the short-term volatility. This is why I believe that careful study of financial sector productivity is required to improve our understanding of the current situation and to shape our long-term response to recent events.

I will organise my remarks around three inter-related questions: First, to measure productivity, how should we measure the level of production in financial services? Second, what do existing measures of financial sector productivity tell us about its sources of productivity growth? Finally, I will attempt to identify which aspects of productivity in financial services have been given new urgency by recent events.

Let me begin with the measurement of financial services output. Not long ago, national accounts methodology underwent a significant improvement in evaluating and allocating financial services indirectly measured (FISIM). The new methodology is based on the observation that depositors are usually paid an interest flow that is below the risk-free reference rate. The difference represents the value of depositor services produced by banks, in the form of safekeeping, bookkeeping and payment services. On the other hand, borrowers almost always pay an interest flow above the risk-free reference rate. In this case, the difference represents the value of borrower services provided by banks in the form of credit-rating and monitoring. Using a reference rate to split banks' interest margin into depositor and borrower services makes it possible to allocate the consumption of these services to households and firms, thus distinguishing between financial services destined for intermediate and for final consumption. For Luxembourg in particular, this change to national accounts methodology was important because our financial services industry primarily serves the export market, so the previous practice of allocating all such production to intermediate consumption by a fictitious sector was particularly implausible.

While national accounts methodology has been much improved by this change, some open questions still remain. In particular, what is the appropriate reference rate? For the average depositor, it may be true that something close to the risk-free rate could be earned by forgoing the services attached to a bank account and instead investing in the money market. However, for the average borrower it is not reasonable to assume that funds would be available at the risk-free rate by issuing securities instead of approaching a bank for a loan. Term-mismatch between savers and borrowers and informational asymmetries explain why the financial intermediation services provided by banks are so important for the operation of market economies. This suggests that to measure borrower services accurately the appropriate reference rate must take account of the term-structure and the risk profile f the resulting bank assets. I am glad to see from the program that several papers presented in this conference will address these issues.

Another open question is how to measure prices in financial services. Value added in the financial intermediation has grown faster than real GDP in the euro area, but it has retained a constant share in nominal terms. This suggests that prices have been rising more slowly in this part of the economy. In Luxembourg we could be tempted to congratulate ourselves for specialising in an industry with above average real growth and below average price inflation. But is this really the case or is it an artefact of how prices are measured in financial intermediation? When banks double the value of the assets and liabilities on their balance sheet, this does not necessarily double the number of transactions, or the amount of labour or physical capital required to produce the necessary services. This observation seems to undermine the justification for deflating asset values using a general price index such as the GDP deflator or the consumer price index. Furthermore, the recent fall in asset prices and the de-leveraging process under way may lead to some surprising results in the breakdown of financial services into prices and quantities.

Let me turn to my second set of remarks, concerning existing measures of productivity in the financial sector and what they tell us about its sources. Perhaps the most natural starting point is the measurement of scale economies, an issue on which academic researchers have long provided advice for competition policy. Empirical evidence on returns to scale in the banking industry has sometimes suggested that larger institutions benefit from greater cost efficiency. However, studies of mergers and acquisitions have often failed to find such improvements. I think it is important to improve methods in this area for at least two reasons. First, increasing European financial market integration is likely to raise the size of the average bank. Central banks often repeat that the European financial services industry is excessively fragmented. Increasing integration should allow a more efficient provision of financial services, improving the allocation of capital to investments with better risk-return profiles and therefore raising the potential for economic growth. Second, the recent depressed value of financial equity and public intervention in the banking sector to rescue distressed institutions will probably accelerate the process of mergers and acquisitions as the outlook recovers. Thus the existence and extent of scale economies remain timely questions for research and policy.

Scale economies are only one source of productivity growth. What used to be called *scope* economies are improvements in efficiency obtained by altering the mix of outputs or the mix of inputs. In academic research, these have proven even more difficult to measure than scale economies. However, I would encourage you to think about these issues in light of recent events. The demise of the investment bank suggests a return to universal banking, with large groups taking over specialised financial institutions. Such a development may be motivated by a need to improve risk management, but it could also bring benefits in terms of an improved mix of different financial outputs that are jointly produced.

Finally, an additional source of productivity growth is efficiency change, meaning the extent to which individual banks move towards (or away from) the best-practice frontier. Again, looking at the conference programme, I notice a couple of papers that ask whether past trends towards deregulation or the creation of a single market in Europe have encouraged convergence towards a best-practice frontier. Unfortunately, a common result in the literature is that there is convergence towards *average* efficiency levels rather than convergence towards the *best* efficiency levels. This suggests that some isolated financial institutions may be pushing the frontier forward while the majority are falling steadily behind (a failure of the catching-up hypothesis). It is hard to interpret this result: is it good news because it means that technology is improving rapidly? Or is it a sign that even banks with low efficiency can survive, meaning that there is little incentive to adopt innovations? One may speculate that the answers depend on how one defines the best-practice frontier and whether it is valid to assume that the same technology is available to all institutions. It is common to link the efficiency of individual banks to environmental variables, the quality of management, wage dispersion, or information technology investment. Such an approach may help to identify unrealistic assumptions concerning the availability of a common technology.

I have come to the third part of my remarks. Following the recent financial turmoil, what are the priorities in the study of productivity in financial services?

I have already mentioned that the recent wave of restructuring is likely to increase the size of the average bank. As I have said, this means we need better tools to measure not only scale economies but also scope economies, as activities that were once performed by separate institutions are brought under a single roof. On the issue of optimal size, public interventions have prompted some recent commentators to observe that while some banks are "too big to fail" others may be "too big to save". It is not clear that there is such a trade-off between scale economies and financial stability. Rather, the "too big to fail" label stresses the need for better international co-operation in regulation and supervision, an objective that should by now be familiar but that has takes on greater urgency as the international links in the financial industry become more apparent.

Another aspect of financial productivity that merits closer scrutiny is the treatment of risk. I am not going to add to the discussion of "black swans" and the impact of rare events on Value-at-Risk models used by traders (and regulators). Instead, I am referring to the more "mundane" issues raised in my previous remarks. In terms of measuring bank output, interest flows usually include a risk premium that will generally be more important when measuring borrower services produced by a bank. Therefore, the appropriate reference rates should be chosen to more closely match the risk characteristics of a bank's loan portfolio. Failure to allow for risk will lead to an overstatement of bank output that will distort productivity measures. It is therefore important to consider banks' risk when studying their efficiency or productivity and I am pleased to see that several papers on the conference programme address these issues.

Closely related to banks risk profile is their degree of output diversification, which is likely to increase as specialised financial institutions seek safety in larger and more diversified groups. In principle, diversification lowers risk, but it may also lead to cost savings when jointly producing several outputs. Greater output diversification is a likely concomitant of the increase in average bank size that will accompany consolidation in the banking sector. By now, academic research generally recognises that banks must be modelled as multi-output firms, but more work is needed on the measurement of the costs and benefits of joint production.

Finally, on the priorities for research emerging from the financial turmoil, I would like to leave you with an open question: The bursting of asset price bubbles is likely to lead to a decline in balance sheet values and a fall in productivity. Is this a problem of measuring prices or measuring productivity? I realise that this is a very difficult question as even central bankers have a hard time distinguishing bubbles from the fundamental level of prices. However, recent events have focussed our attention on the real consequences of assuming that asset prices are always at equilibrium. If we are going to discuss productivity in financial services, we need some indication of how far our measures will be distorted by asset price bubbles.

In conclusion, I am pleased to see you here in Luxembourg, where the financial services industry is such an important part of our national economy. It only remains to me to wish you a fruitful discussion and an enjoyable visit to our country.