



## **A central bank's view on technology based efficiency and productivity in the financial markets**

Opening speech by Governor Erkki Liikanen in the Bank of Finland seminar on Technology-driven Efficiencies and Risks in Financial Institutions, 21 November 2005

Europe needs more growth. But we are aging. So growth cannot come from an increased labour contribution. We therefore need higher labour productivity. We need more investment, which in turn increases productivity. And we need better solutions, recipes, bringing a lot higher total factor productivity. This means faster technological change.

We are happy to have with us today Professor Matti Pohjola, the renowned economist, who has written extensively on ICT, productivity and growth.

We know that ICT can be a powerful tool in productivity growth, not only concerning ICT-investment but above all the use of ICT in new processes and ways of organising companies and the public sector.

In Europe, the use of IT in the services sector has not brought about the same increase in productivity that we have seen in the United States. The reason behind this, however, is not only slightly lower investment levels in ICT but – I believe – less competitive markets. When there is less competition, there is less pressure to innovate, and less pressure to increase efficiency.

This is why we need to have the real Internal Market as an opener of competition. And we need to abolish the remaining barriers to cross-border business in all areas.

Today, we have a common monetary policy but we don't have a common financial market.

We have made some progress in the financial markets, such as in the wholesale business generally and the integration of inter-bank large value payment systems and securities markets in particular. Both of which have proceeded well. Retail banking and securities settlement systems are where matters are lagging most. And the co-ordination and convergence of supervision require further work.

A Europe-wide financial sector will bring better and cheaper services and lower interest rates to all customers: to consumers, SMEs and large companies alike. Lending decisions are also decisions about innovation in other sectors. All of which promote growth.

- From the macroeconomic point of view, the integration of the financial sector is significant for Europe, because:

- integrated and efficient financial markets would allow the dilution of risks by spreading them among countries and regions, and

- integrated financial markets can contribute to the efficient transmission of monetary policy.

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In the 1970s and 80s, Finland saw substantial investment in IT in the financial sector. But it was only after the financial crises in the early 1990's that the sector was forced to revise their operations, and ICT was widely used in both re-engineering the internal processes and in creating new distribution channels.

In the ten years that followed, banks cut their operating expenses by 50%. This process was initiated when public authorities set stark quantitative cost savings requirements as a condition to receiving capital support. On top of which, enhanced competition, due to deregulation, has increased the need for continuous re-engineering. Certainly, commonly created standards for customer-to-bank and inter-bank communication also played a significant role in this development.

From which we can see that we need IT-investment, we need competitive pressure and we need investment in innovating in the organisation to bring about productivity growth.

Now –and even more so in the future –tough competition in integrating markets force financial market institutions to further improve their performance and increase their efficiency. That is also what share - holders want. And to bring these improvements about, streamlined inter-bank payment systems and automated securities settlement systems are required in particular.

The European financial sector demonstrates, however, significant differences in efficiency, both between institutions and between national banking sectors. This question will be further elaborated in today's presentation by De Nederlandsche Bank's Jacob Bikker, the author of a well-known book in this area.

Implementation of ICT has caused profound changes in many business lines, and yet there is the potential in further renewing and streamlining the processes – it should not be about carrying out the computerisation of old processes but rather about reinventing the processes and using the full capacity of new technology.

Efficiency comes from savings in personnel and time, streamlined and automated process flows, from less errors, from economies of scale and from lower processing costs per unit. Banks have created new sources of income by offering more sophisticated products which would not have been possible without the use of ICT. The whole banking landscape is changing. It is going to be of the utmost interest to hear Bob DeYoung's presentation on what the implications of these changes to the industry are, and how far this evolution can go.

A modern, networked economy also requires financial institutions to review their way of carrying out their business with their customers in order to produce added value. This often requires being part of their customers' business processes and doing more than was required of them earlier. An example of this is electronic account statements, with their structured references and other information for automated booking and reconciliation in the company's financial management. The demand for straight-through-processing from customer to the bank, between banks and to customer is intense. Aspect of these issues will be discussed during both Bo Harald's and David Blair's presentations in this seminar.

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From bricks and mortar to clicks and mortar is the most visible phenomenon of ICT in financial institutions. A new distribution channel, the Internet, and mobile terminals, along with sufficient ATM- and payment card networks have made it possible to bring down the number of bank branches, giving savings in operating costs. Take, for example, one Finnish bank which has managed to cut its distribution costs by 25% and unit production costs for payments by 68% over a 3 year period. This was achieved by implementing multi-channel applications.

Customers have adopted the new way of banking, paying bills, checking credit card balances or trading in securities, independent of time or place, surprisingly fast. Coming generations will probably have difficulty in understanding how anyone ever queued at a bank branch to pay his bills – to say nothing of writing a cheque. Today, it is difficult to see how a bank could enter the Finnish or Nordic markets without a well-functioning and comprehensive Internet service.

New customer generations are also more willing and capable of extensively managing their finances using e-banking services. Housing loans, for example, are still largely negotiated in branches, but already we have seen how people request offers from various banks via the Internet before entering into final discussions with one bank. This reinforces the customer's negotiating power. And this increases competition.

Development also requires sufficient security elements to create and maintain public confidence. And here the challenges are growing. We need European level cooperation in network security. Here I hope that ENISA, the European Network Security Agency, will make its contribution. We need efficient cooperation among the law enforcement authorities to fight cyber crime. And we need the secure electronic identification and protection of data privacy. Identity theft, the worst case of e-crime, must be fought on all these fronts.

ICT implementation and exploitation often require huge investments. In many banks ICT has replaced personnel as the largest single item of expenditure. Old legacy systems are aging, and according to a recent survey, over 80% of ICT expenditure goes into maintenance of these systems. New investment is required, and these are challenging projects.

In Europe, it seems the banking industry is very prudent in front of new investments. This may partly reflect caution due to over investments in the past, as for 2 K. But it may also mirror the risks currently a deficient vision of the future. Maybe there are not enough incentives – such as competition?

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Can regulation be used to enhance competition? This was the case with the Internal Market programme. Twelve or fifteen national regulations were replaced by a harmonized one. Active competition policy was pursued. So a level playing field was created in a great number of sectors. And the regulatory costs were lower than in the past.

But in general, regulation can be a double-edged sword. The first priority is that markets are dynamic and search for growth. Sometimes, however, regulation is also required where market failure is evident.

The EU Commission's regulation (2560) on euro payment fees was the first step towards forcing the banking sector to do something about the intra-EU cross-border payment systems. By regulating the fees that banks were able to collect from cross-border euro-denominated payments within the EU, the Commission – in effect – cut the banks' income and forced them to develop cost saving measures in the processing of these payments.

The new draft on the new legal framework for payments is coming soon. This framework should have the effect of harmonising the general terms of payment transmission throughout Europe. This means that a payment initiated by a Finnish customer in Helsinki to an Italian bank's customer in Milan or a Portuguese bank's customer in Lisbon to a German bank's customer in Wilhelmshaven - or wherever in Europe - must not take longer than 3 banking days. Knowing the diverse terms of payment in use today, this will inevitably force the banking industry to improve their operations. This development will also benefit all companies involved with Europe-wide trade.

Banks have committed themselves to creating the single euro payments area, SEPA through their co-operation forum the EPC (European Payments Council). This development should result in an integrated euro payments market. Work on the definition of common payment instruments is in progress, but the infrastructure for handling them is still obscure.

Different levels of ICT usage in Europe and different traditions cause controversies in this SEPA work. The only option for Europe is to succeed in creating such an internal payments infrastructure that benefits the end customer and enhances economic growth. We must not build SEPA according to the lowest common denominator; instead it must become the momentum for the entire European financial sector. It could provide the required push for the banking industry to find the touchstone to guide them to a new level of competitiveness.

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Why do we need a conference such as this? In their individual statutes, the euro area central banks have been given the task to contribute to the smooth conduct of policies pursued by the various authorities relating to the prudential supervision and the stability of the financial system. On top of which, we are to contribute to the smooth operation of the payment and securities infrastructure. This is the basic task of the European System of Central Banks. The Bank of Finland has even been explicitly committed to participating in developing financial markets.

From this, you can see that the objective comes mainly from the need to boost economic growth; the solutions however lie at the micro-level. Two thirds of the topics covered by this conference take a micro approach. We need to interlink the forces of integration, competition, innovation and the use of technology. Within the financial markets, technology can give us that edge.

When setting up this conference my colleagues were faced with the difficulty of placing the issue before central bankers: the theme is partly a financial market policy issue, partly an oversight issue and we

cannot ignore the fact that central bank operations are involved, too. It falls into the area of co-operation with supervisors, as technology changes the risk profile of financial institutions and the market as whole.

It is essential that new technologies, new products and processes are understood not only by market operators but also by the authorities. Contagion can take on new forms via networks and loss of public confidence. The new multi-channel world is more transparent than the old brick and mortar world. This understandably poses new demands on supervisory regulation – although it should not become a barrier to development. Co-operation across borders must be ensured in the integrated markets.

I would like to wrap this issue up by promoting e-banking, which to me covers various services in banking and securities markets while extending to the basic infrastructure that include payment systems and instruments. We at the Bank of Finland have felt this area should constitute a strategic focus. I believe you can share this vision.

How can we enforce such a strategy? Perhaps best through the provision of analysis and research focusing on efficiency and productivity in the financial sector. Some of this requires the development of methodology and we must surmount the difficulties of current research in capturing a multifaceted reality due to a shortfall in data. Therefore the accent remains on co-operation with market participants. After all, it is the market that will have to deliver the efficiencies.

I wish you all a lively debate.