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**Concluding Remarks**

at the Conference of the ECB-CFS Research Network on  
“Financial system modernisation and economic growth in Europe”

in Berlin  
on September 29, 2006

## 1 Introduction

Ladies and gentlemen

It is a great pleasure to make the closing remarks at the end of this very stimulating conference. As you know, the Bundesbank has hosted this event; and I should like to thank the organisers of the conference for the excellent way they have handled everything. But more importantly, this is already the seventh conference of the ECB-CFS Research Network. Success speaks for itself.

This conference – like its predecessors – has brought together experts with different perspectives: It has given researchers the opportunity to exchange views on their projects, it has advised policymakers in their efforts to foster financial modernisation<sup>1</sup> in the EU and, finally, it has confronted us with the valuable (though – thinking of the policy panel – often divided) opinions of market participants.

Today and yesterday, we had a very wide-ranging and in-depth debate on the various aspects of financial system modernisation and its impact on economic growth. We tried to focus on aspects that are relevant in the European context, which is not always easy considering the vast literature which builds on large cross-country studies and which might thus be dominated by the experience of developing and transformation countries. I will not try to undertake a comprehensive review of each and every one of these debates, but rather

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<sup>1</sup> In line with the title of the conference, the term “financial modernisation” (instead of “financial development”) is used throughout the speech, as this seems more appropriate when talking of changes of financial systems in industrialised countries.

focus on my personal list of the most fruitful results of this conference. I have three main messages in mind.

- Financial systems matter for growth.
- Financial integration and modernisation should be furthered in the EU.
- In this respect, financial system regulation supporting competition is helpful, but not a panacea for spurring growth.

## **2 Finance and growth**

### **2.1 Impact on the level of output**

The fact that the finance-growth nexus is an extensive and fast-growing field of research has been well demonstrated by the wide range of subjects discussed during the last two days, which encompassed banking sector outreach, corporate governance and start-up financing.

The literature builds on the generally recognised fact that financial modernisation contributes to higher long-run economic growth: It encourages the mobilisation of savings from many disparate savers, allows a better screening and monitoring of information on borrowers and improves risk-sharing.

Even though reverse causality makes the quantitative importance of the finance and growth relationship hard to determine, the channels through which the finance-growth nexus works

have been subjected to detailed analysis. It is mostly assumed that financial modernisation affects growth either directly via lower cost of capital or indirectly via (1) the productivity channel, (2) its effect on the build-up of physical and knowledge capital or (3) a reduction in risk premia.

Indeed, one major strand of cross-country/cross-industry research has emphasised the productivity channel, stating that financial modernisation has a positive impact on the growth of industries that are more dependent on external finance. The first (and highly influential) paper to promote this idea was by Rajan and Zingales (1998).

Yesterday, we saw their approach extended by Antonio Ciccone and Elias Papaionannou. Their paper focuses on the role of financial modernisation for the speed of capital reallocation towards rising industries and suggests that financial modernisation fosters productivity by fastening the adjustment of capital investment to global productivity, price and demand shocks.

This argument should be of particular interest to the euro area: One cause of output heterogeneity across member states is an asymmetric reaction to euro-area wide symmetric shocks (such as oil price shocks). Thus, all things being equal, a faster adjustment of capital allocation should facilitate a single monetary policy.

## **2.2 Impact on the volatility of output**

A common thread running through most of the finance and growth literature is the focus on output growth. Policymakers, however, also take a great interest in the volatility of output

growth. One of the most striking features of the economic landscape over the past twenty to thirty years has been the well-documented decline in the volatility of output growth (and inflation), dubbed the “great moderation”. Volatility of GDP growth roughly halved in all G-7 countries – even though the specific pattern and timing often differed from country to country.<sup>2</sup>

Reduced macroeconomic volatility has numerous benefits: It improves market functioning, makes economic planning easier and reduces the resources devoted to hedging inflation risks – thereby implying more stable employment and a reduction in economic uncertainty confronting households and firms.

The jury is still out on the main driver of the great moderation. Several explanations have been proposed, among them better monetary policy (in other words, central bankers learnt the lessons of the 1970s) and plain good luck (that is milder economic shocks). A third explanation refers to structural changes, namely in economic institutions, technology, business practices – and in the financial system.

Against this background, I found the paper by Viral Acharya, Jean Imbs and Jason Sturgess very stimulating. Inspired by portfolio theory, their paper concludes that the kind of financial modernisation they examine – deregulation of branching restrictions in the US – affects the efficiency of capital allocation through its effect on the volatility of output growth, rather than through its effect on the growth rate of output itself. This is so because the primary effect of branching restrictions appears – from a risk standpoint – to limit banks’ scope for

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<sup>2</sup> Peter M. Summers (2005): What caused the great moderation? Some cross-country evidence, in: Economic Review (Q3 2005) of the Federal Reserve Bank of Kansas City

diversification (and thus scope for investment activity as a whole). Hopefully, other researchers will follow suit and investigate further the link between structural changes in financial systems and output volatility.

As an aside, I would like to add that the paper by Imbs et al. might also be interesting from a totally different angle: Their application of portfolio theory aims at further diversifying the finance and growth methodology. Only yesterday, George von Furstenberg and Ulf von Kalckreuth reminded us not to fall into the trap of taking well-known methodological assumptions for granted. Therefore, the attempt to tackle the finance-growth nexus using “unorthodox” methods (such as portfolio theory) might serve as a promising robustness check.

### **3 Financial market integration and modernisation in the EU**

#### **3.1 Financial market integration**

Why is the finance-growth nexus relevant to the EU? Or, put differently, why did the ECB-CFS research network decide to devote this conference to it? As we are well aware, many European countries urgently need to strengthen growth and increase employment. Real GDP growth (yoy) in the euro area averages out at only about 2% in the last ten years, compared with slightly more than 3% in the US. The same goes for real GDP growth per person employed, which has been roughly 1% (yoy) over the last ten years in the euro area, compared with a little more than 2 % in the US.

The reasons for the economic slowdown in the EU are manifold, and the Lisbon Agenda underlines the need for a multi-faceted approach. One of the main goals of the Agenda is to foster financial integration in the EU. Indeed, research expects financial integration to be associated with a quantitatively significant “growth dividend”. For example, an often cited study by London Economics (2002) estimates the benefits of the integration of European bonds and equity markets to be around 1% of real GDP over a ten-year period.

While such figures can always be subject to estimation error, economic reasoning suggests that the overall benefits of financial integration are significant. First, financial integration is a key factor in the modernisation of the financial system: The integration process fosters competition, the expansion of markets and intermediation, thereby leading to further financial modernisation. Second, as a central banker, I take a natural interest in financial integration because a well-integrated financial system contributes to a smooth and effective implementation of monetary policy throughout the euro area.

For both reasons, we should not content ourselves with the present degree of integration in EU financial markets, which still varies widely depending on the market segment: Integration is furthest advanced in market segments close to the single monetary policy. Bond and equity markets are fairly integrated. However, local factors continue to have some influence on demand and on returns, especially in equity markets. Retail banking, in particular, remains highly fragmented and financial infrastructure services are lagging behind. Both areas are still among the least integrated parts of the European financial system.

The completion of the single market in the domain of financial services is crucial as only a fully integrated financial system will be able to reap all the benefits brought by financial modernisation.

### **3.2 Financial modernisation**

Additionally, financial sector performance in the EU can be further improved by addressing other aspects of financial modernisation as well. It is essential that all aspects of financial systems keep pace with the rapid and ongoing changes in today's global financial architecture. This is a great challenge even for industrialised countries.

This morning, Philipp Hartmann highlighted several useful factors which are vital for a smooth functioning of financial systems. They ranged from financial innovation to transparency, corporate governance and financial regulation. Needless to say, his approach – based on a comparison of indicators – must be considered with care and its results should not be overinterpreted: Indicators reflect a limited image of reality. Moreover, they are often biased for reasons of data unavailability or non-comparability across countries. Therefore, an indicator approach should rather serve as a starting point for further analyses.

Still, Hartmann's presentation demonstrated that there is a fair amount of heterogeneity in how financial systems work across European countries. This heterogeneity might in some ways create frictions in an increasingly integrated EU financial market. Additionally, Hartmann highlighted that EU financial markets still suffer from several shortcomings. To my mind, the most obvious are risk capital markets, which are still small and represent bottlenecks in the areas of start-up financing (as highlighted by Marco Da Rin and Luísa



Farinha in this morning's session), and the limited use of securitisation, which hampers risk allocation and unnecessarily binds banks' capital.

## **4 Regulation, financial systems and growth**

Once we acknowledge that both financial integration and financial modernisation still fall short of our expectations, the essential question is: Is there a need for structural reforms of the EU financial system? Or will markets be able to cope with the situation on their own?

Indeed, much of the ongoing financial integration process has been policy-driven – for example, the introduction of the euro or the implementation of single market legislation (FSAP). Moreover, research such as that presented by Alain de Serres, Shuji Kobayakawa, Torsten Sløk and Laura Vartia underlines the fact that financial system regulation (concerning both banking and securities markets) has a statistically significant influence on output and productivity growth – provided that this regulation allows for stronger competition in financial markets.

When it comes to financial integration, it is generally accepted that it is – in principle – a market-driven process. For the reasons mentioned earlier, however, policymakers should facilitate full financial integration (especially of retail banking markets and payment systems) by acting as a catalyst. That is to say, they should address the familiar obstacles – legal, regulatory, competition, tax or technical – faced by financial institutions in their cross-border activity within the EU.

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Unlike integration, the issue of modernising financial structures does not lend itself to simple answers. Think of the popular question of whether a capital-market based financial system is more efficient than one that still relies heavily on banking. The answer is inextricably intertwined with other structural issues and national peculiarities, which have evolved over a long period of time and have jointly formed individual financial systems: the design of pension schemes, the role of public banks, and the degree of regulation in securities markets. Furthermore, it might well be that differences in preferences among economies will result in different optimal financial systems. A financial system which is better suited to growth might be less suited to risk insurance, for example. Therefore, specific positive characteristics of one system should not be transferred blindly to another.

As a consequence, it is hardly surprising that there is no clear-cut answer. Hence, the preliminary conclusion of the finance-growth nexus is: Financial markets and intermediaries should be regarded as complements in the provision of financial services rather than substitutes. Research cannot determine a mix of a capital-market and a bank-based system that is most beneficial for output growth. What matters in promoting long-run economic growth is the overall level, the quality and, especially, the completeness of financial services.

Similarly, no straightforward answer has yet been found as to which system – a bank or a capital-market based one – might be better suited to smoothing the cyclical behaviour of national economies. In its latest World Economic Outlook, the International Monetary Fund (IMF) embarks on such an assessment for advanced economies. It juxtaposes the comparative advantages of both systems with regard to business cycle synchronisation.

As for the household sector, it concludes that, in capital market-oriented financial systems, households can borrow more to support consumption. In predominantly bank-based economies, however, households are less vulnerable to rising interest rates and declining asset prices. Turning to the corporate sector, the IMF states that capital-market oriented financial systems are better equipped to reallocate capital from declining to growing industries. In predominantly bank-based economies, cyclical changes in investment seem to be shallower, perhaps because such systems provide greater support to firms in the face of temporary changes in demand.

Hopefully, these first thought-provoking results from the IMF will serve as an appetiser for further research. But they also prove that theory is still divided over the desirable characteristics of financial systems. If this is the case, we can and should trust market developments to find appropriate solutions. Policymakers should only pave the way for further financial modernisation by providing a general framework that encourages the proper functioning of both markets and intermediaries and enhances competition between them, both on a national and an international level. This includes, as mentioned earlier, supporting risk capital markets and securitisation.

## 5 Concluding remarks

In conclusion, it is generally accepted that efficient financial structures contribute to increasing the potential for stronger non-inflationary economic growth. Therefore, the promotion of European financial integration and modernisation is highly relevant when

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aiming to strengthen economic growth in the European Union. Financial integration and modernisation are, first and foremost, market-driven processes. Policymakers should support them by providing an effective legislative and regulatory framework, but should not intervene with market characteristics.

The Eurosystem attaches great importance to furthering progress in integration and modernisation by acting as a catalyst for market-led initiatives like STEP, providing central banking services (TARGET2, TARGET2-Securities), providing advice on the legislative and regulatory framework for the European financial system and monitoring progress and raising awareness – not least by hosting this conference.

Hopefully, the past two days will foster an ongoing and productive debate that will take us forward in gaining a better understanding of the growth implications of financial modernisation. Thank you for your attention.

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