



OESTERREICHISCHE NATIONALBANK

29. VOLKSWIRTSCHAFTLICHE TAGUNG 2001

Der einheitliche Finanzmarkt –
Eine Zwischenbilanz
nach zwei Jahren WWU



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KLAUS LIEBSCHER



Opening and Introductory Remarks

It is a great pleasure for me to welcome you all to the 29th conference in economics hosted by the Oesterreichische Nationalbank. We are honored that so many of you are attending this conference to share with us your views as well as your expertise. I would like to extend a special welcome to the keynote speaker of this conference, Mr. Duisenberg, President of the ECB.

This year's topic "*The Single Financial Market: Two Years into EMU*" fits very well into the tradition of this conference. It has always been our aim – and our ambition – to discuss current issues which are of major interest to both practitioners and academics. I believe that it is fair to claim that the single European financial market is one of these issues.

European Monetary Union (EMU) has certainly been the most important event for European and indeed for international financial markets since the breakdown of the

Bretton-Woods system. With the single currency an important necessary condition is met to achieve the ambitious goal of creating a single financial market in Europe. The single currency itself, however, can not establish this market automatically. Many other conditions have to be fulfilled and new challenges have to be met. It is our hope that this conference will provide a forum to address these important issues and will allow us to take stock of what we have achieved so far.



The financial system fulfills several essential functions for the performance of the real economy. It plays a crucial role in the allocation of resources by channeling funds from households to enterprises, it provides risk-sharing opportunities for households and firms, and it helps agents to economize on transaction and information costs.

An economic environment in which these functions can be fulfilled smoothly and efficiently is therefore essential for the welfare of an economy.

For a long time European financial markets had to cope with various obstacles created by national boundaries and different legislation. As a consequence, the financial system in all the different countries could not fulfill its essential functions as efficiently as it might have. However, the picture has changed dramatically during the last decade. With an accelerating process of European integration and the historic project of the EMU the conditions to

establish a truly harmonized financial market in Europe have become very favorable. They have been fostered by the impressive success of the euro. Together with the U.S. dollar the euro has established itself as the second most important reserve currency. By the end of 1999, 13% of the world's foreign reserves were held in euro.¹⁾ It also immediately gained an important rank as a currency of denomination in the bond market. It served as liability currency for 76% of corporate sector debt issued by euro area residents in 1999.²⁾ But also as an issue currency for international bonds in the private sector the euro topped the U.S. dollar in the same year.³⁾ In addition soon after the introduction of the euro more than 50 countries already use it as an anchor currency.

In the numerous outlooks issued prior to EMU it was argued that the single currency will enhance the depth and liquidity of European capital markets. It was predicted that transaction costs will decrease substantially, that opportunities for diversification of income risks will be strengthened and that the European financial system will become more competitive at an international scale. How shall we judge these expectations *ex post*, after the experience of more than two years of EMU? The papers in session 1 will take up these issues in depth.

I think that looking back we see that these hopes and predictions have not been empty. Already in the run-up to the single currency considerable structural changes have taken place in European financial markets. This process of change has gained momentum by the introduction of

1 See IMF (2000), Appendix I, table 1.2.

2 See BIS (2000a), p. 128. This number is to be compared with an average of 50% in the predecessor currencies between 1990 and 1998.

3 See BIS (2000b), p. 17.

the euro and there are good reasons to believe that we are only at the very beginning of this process. The evidence for the direct changes brought about by the single currency is relatively easily seen and therefore usually uncontroversial.

These direct effects such as the standardization and transparency in security pricing, the elimination of currency risk, as well as the homogenization of the public bond market and the refinancing procedures for the banking system arise almost automatically as a consequence of the currency union and the establishment of the Eurosystem. They are quantitatively important although they are not always easy to assess empirically.

Much more difficult to assess are the indirect effects. These effects entail the impacts on the depth and the liquidity of European capital markets, on opportunities to diversify income risks of households and firms, the institutional changes, and the way in which these changes will shape the future of the European financial system. They are more likely to materialize gradually over time and might not yet be visible in their entire consequences. Some of the long-run perspectives will be addressed in session 3 at the end of the conference in detail. But even hard boiled sceptics have to acknowledge that, in the meantime, some of these effects have become visible in an impressive way.

Take the capital market as an example. Expectations with regard

to this important part of the financial system have been particularly high. In the capital markets the changes in the corporate bond market have perhaps been most pronounced. Not only has total volume increased remarkably, also the size of individual issues has increased by a substantial amount. By its size and its openness the bond market in the euro area is now able to absorb very large issues. It is able to do so at a larger scale than the individual bond markets of the predecessor currencies of the euro. The evidence available so far¹⁾ therefore supports very much the view that the European private bond market has substantially increased in liquidity and breadth.

We can also observe a clear trend toward an increase in equity financing. The listing of new companies has increased considerably during the last three years. Circumstantial factors notwithstanding, this increase also reflects an increased attractiveness of stock market listings in the euro area.²⁾

It is not unwarranted to assume that this is only the beginning of a development reaching much further. With the convergence of fundamentals across the euro area, country specific investment strategies will become less attractive and the value of trans-European asset management will presumably increase.³⁾ This development will contribute to more



1 A widely cited study documenting this evidence is for instance Danthine, Giavazzi, von Thadden (2000).

2 Evidence based on the data from the International Federation of Stock Exchanges (FIBV) reported in a speech by the Vice President of the ECB Christian Noyer shows that in the course of 1999 approximately 900 companies were newly listed in the euro area. Compared with 1998 this amounts to an increase of 40%. See Noyer (2000).

3 As evidence to support this as a reasonable conjecture one could take the Goldman-Sachs/Watson-Wyatt survey of fund managers. The survey has found for 1998 that 70% of fund managers intended to change their asset allocation after the introduction of the euro. 64% said that the new allocation will be based on sector considerations rather than countries. See Goldman Sachs, Watson Wyatt (1998).

efficient information flows and will ultimately lead to a major reorganization of the European asset management industry, which has already begun. Once this development fully materializes, the trend toward an increasing importance of pan-European equity markets will be reinforced.

Evidence could also be taken from other segments of the financial system to support the view that euro area financial markets have already seen a remarkable development both



in quantity and quality. Take for instance the large size and high liquidity of the unsecured money market, the rapid development of an overnight interest rate swap market based on euro money market rates and the futures

markets based on government bonds such as the bund future, which has gained a references status for the whole euro area.

The development of European financial markets is of course also shaped by global economic trends and technological developments. It is therefore not always easy to disentangle the impacts of the single currency from impacts of other factors that are conducive to the development of the single financial market. We also have to be aware that further developments are needed to create a truly homogeneous single financial market in Europe and various obstacles still remain. The developments I have sketched before, however, give good reasons to be optimistic about the future.

The structural changes that we can already see in financial markets will also affect the future of financial institutions, in particular European banks. Our conference will address this important issue in a *panel discussion*

including panelists from the banking industry and from academia. Not only do they play a dominant role in the European financial system, they are also among the most important players on European financial markets.

While the changes in the capital markets which I have outlined before have a negative impact on the traditional deposit and lending business, banks can take advantage of benefits created by the increasing role of asset management and investment banking activities, where they have special expertise due to the European tradition of universal banking. Thus, the development toward a more market based financial system does not imply that banks will be unimportant. Quite to the contrary, their role might be even strengthened by these developments. However, to benefit fully from these new opportunities they will have to go through a significant process of restructuring and innovation.

Investment banking and asset management activities are most affected by the single currency. These banking activities are characterized by strong economies of scale. Due to these technological features there are incentives for merger activities both domestic as well as cross-border and we have already seen these incentives at work. From the present perspective it is not yet visible, what will be the ultimate outcome of this process. However, as already seen in the capital market, it seems that EMU has been a decisive push toward a more integrated and more competitive European banking industry.

Structural change in financial markets is not only a challenge for market participants and financial institutions. Since financial markets are dependent on a well-functioning complementary legal, regulatory,

and supervisory infrastructure, regulators are particularly challenged to keep up with the pace of change and to find suitable answers to the new reality of financial markets. *Session 3* of our conference is therefore entirely devoted to the discussion and analysis of this important topic.

Indeed we have been observing various proposals to reorganize and restructure financial markets supervision and to create a new institutional framework to safeguard financial stability throughout the European Union. Some member states have already taken steps of major institutional reforms.

In the course of this debate the active involvement and the key role of central banks in supervising the banking system has been repeatedly challenged. Models of new national institutions in charge of supervising banks, financial markets, and the insurance industry under one roof of a general financial service authority have gained some popularity among politicians.

The merger of various supervisory fields into one single institution is highly ambitious and will have to be assessed in the light of practical experience. Whatever reorganization design is under debate, it is of crucial importance to take a clear position about the role of the central bank. Regarding the role of the national central banks in this context, I would like to refer to President Duisenberg's keynote speech, who will devote part of his presentation to this issue.

The project of creating a European single financial market has been supported by global economic trends and the process of European integration, but it has also received a major

impulse by the establishment of EMU. It has already induced an impressive process of structural change and it has created new challenges for market participants, financial institutions, and regulators. To meet these challenges the open discussion of issues, the contribution of individual and institutional expertise, and the serious efforts of all of us to find sound answers and good solutions to new problems is decisive to turn this ambitious project to the ultimate benefit for European citi-



zens. It is my hope that our conference can contribute to these efforts.

Thank you very much for your attention. 🙏

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WILLEM F. DUISENBERG



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PRESIDENT,

EUROPEAN CENTRAL BANK

The Role of Financial Markets for Economic Growth

It is a great pleasure and honour for me to join the Oesterreichische Nationalbank for its 2001 Economics Conference on “*The Single Financial Market: Two Years into EMU*”. I would like to take the opportunity to talk about the role of financial markets for economic growth. I shall first consider whether the design of the financial system matters for economic growth. Second, I shall say a few words about where the euro area financial system is heading, two years after the introduction of the euro. After this I shall discuss the role of monetary policy in the interplay between financial markets and economic growth. Towards the end, I shall address, as just mentioned by Governor Liebscher, the role of central banks in prudential supervision.

Does the financial system matter for economic growth?

In the financial system funds flow from those who have surplus funds to those who have a shortage of funds, either by direct, market-based financing or by indirect, bank-based

finance. The former British Prime Minister William Gladstone expressed the importance of finance for the economy in 1858 as follows: "Finance is, as it were, the stomach of the country, from which all the other organs take their tone."

The financial system comprises all financial markets, instruments and institutions. The question of whether the design of the financial system matters for economic growth in my view has to be answered with "yes". According to cross-country



comparisons, individual country studies as well as industry and firm level analyses, a positive link exists between the sophistication of the financial system and economic growth. While some gaps remain, I would say that the financial system is vitally linked to economic performance. Nevertheless, economists still hold conflicting views regarding the underlying mechanisms that explain the positive relation between the degree of development of the financial system and economic development.

Some economists just do not believe that the finance-growth relationship is important. For instance, Robert Lucas asserted in 1988 that economists badly over-stress the role of financial factors in economic growth. Moreover, Joan Robertson declared in 1952 that "where enterprise leads, finance follows". According to this view, economic development creates demands for particular types of financial arrangements, and the financial system automatically responds to these demands.

Other economists strongly believe in the importance of the financial system for economic growth. They address the issue of what the optimal financial system

should look like. Overall, the notion seems to develop that the optimal financial system, in combination with a well-developed legal system, should incorporate elements of both direct, market-based and indirect, bank-based finance. A well-developed financial system should improve the efficiency of financing decisions, favouring a better allocation of resources and thereby economic growth.

Both market and bank-based financial systems have their own comparative advantages. For some industries at certain times of their development market-based financing is advantageous. For example, financing through stock markets is optimal for industries where there are continuous technological advances and where there is little consensus on how firms should be managed. The stock market checks whether the manager's view of the firm's production is a sensible one. For other industries, bank-based financing is preferable. This holds in particular for industries which face strong information asymmetries. Financing through financial intermediaries is an effective solution to adverse selection and moral-hazard problems that exist between lenders and borrowers. Banks in particular have developed expertise to distinguish between good and bad borrowers. Economies that have both well-developed banking sectors and capital markets thus have an advantage. Furthermore, in times of crisis in either system, the other system can perform the function of the famous spare wheel.

The financial system is also particularly important in reallocating capital and thus providing the basis for the continuous restructuring of the economy that is needed to support growth. In countries with a highly developed financial system,

we observe that a greater share of investment is allocated to sectors of relatively high growth. When we look back more than one century ago, during the Industrial Revolution, we see that the financial system of England did a better job in identifying and funding profitable ventures than other countries in the mid-1800s. This helped England enjoy comparatively greater economic success. Walter Bagehot, banker and former editor of *The Economist*, expressed this in 1873 as follows: “In England, however, ... capital runs as surely and instantly where it is most wanted, and where there is most to be made of it, as water runs to find its level”.

Nowadays, the lack of a well-developed stock market would be a particularly serious disadvantage for any economy. Equity is essential for the emergence and growth of innovative firms. Today’s young innovative high-technology firms will be the main drivers of future structural change essential for maintaining a country’s long-term growth potential. The contribution of financial markets in this area is a necessity for maintaining the competitiveness of an economy today given the strongly increased international competition, rapid technological progress and the increased role of innovation for growth performance.

In recent years, “new markets”, for stocks of young and growing companies, have become a growing market segment in the euro area. Equity financing is particularly advantageous for these companies and their investors given the uncertainties of the economic return. As the term “shares” suggests, with equity financing you get your share of the outcome, whether it is positive or negative. Banks, on the other hand, may be reluctant to provide loans owing to the risk profile of

these firms and the greater exposure to a negative result in a loan contract.

Total market capitalisation of the new markets in five euro area countries grew from EUR 7 billion at the beginning of 1998 to EUR 167 billion in December 2000. While some of this increase can be attributed to the overall rise in share prices during this period, it is important to note that the number of listed companies continued to increase almost every month. The total number of companies listed on these new markets in the euro area increased from 63 at the beginning of January 1998 to 564 at the end of 2000. Developments over the last year have admittedly been dismal. However, it is the nature of new markets, given the uncertainties attached to future developments of the companies listed on these markets, to exhibit more volatility than established markets.

Bank-based finance has a special role to play for many companies in need of funds, and thus helps to ensure a well-balanced growth process. The economic literature on “relationship banking” has demonstrated that banks can contribute to alleviating the impact of sudden economic shocks on their clients. Banks stand ready to provide many customers with funds even in adverse circumstances, e.g. when the liquidity of financial markets dries up.

The banking sector also has an essential role to play with respect to the allocation of funds to the most profitable investment opportunities. Banks are, as mentioned before, financial intermediaries that by nature add cost to the allocation of capital. Thus, in order for banks to survive in a market economy they



need to provide added benefits. It is difficult to compete with the debt securities market if a bank loan is of a size where the fixed costs of accessing debt markets become negligible. However, securities markets are not always sufficiently liquid and some, especially small and medium-sized enterprises cannot cover their liquidity needs via securities markets owing to significant fixed costs of access. An additional benefit of bank-based finance relates to the intrinsic nature of the banking business: some projects cannot be financed directly by the market on account of significant information asymmetries between the borrowers and potential lenders. Banks can bridge this gap thanks to their comparative advantages in the assessment and monitoring of investment projects, which contributes to overcoming information asymmetries.

The financial system of the euro area after two years with the euro

Let me now turn to the major changes of the financial system in the euro area after two years with the euro.

Financial market integration

The launch of the euro on 1 January 1999 was a historic event. Eleven national currencies were converted into one single currency overnight. Greece became the twelfth EU Member State to adopt the single currency on 1 January 2001. The newly created currency area of the twelve participating EU Member States has a considerable weight in the world economy. It accounts for around 20% of the world's GDP and of world exports. The successful launch of the euro, which is a key element in the creation of a stable and prosperous Europe, has boosted the integration of financial markets

in the euro area. This process of integration in European financial markets coincided with the trends towards globalisation and securitisation. Other factors, among a wide range which shape the financial system are historically determined characteristics, technological innovation, monetary and fiscal policies and specific legal and accounting systems that differ from country to country.

Evidence of integration can be found, to varying degrees, in all parts of the financial system. The euro area money market is among the most integrated parts of the financial system. The conduct of one common monetary policy in the euro area brought about immediate integration of the unsecured segments of the money market, mainly the interbank market and the short-term derivatives market. The secured segments of the money market, that is the repo market and the markets for short-term securities, are also increasingly integrated, but they still suffer from underlying problems with the management of collateral. Nonetheless, the outlook is promising. The euro area bond market has also developed rapidly. Notably, the private segments of the euro area bond market have flourished since the introduction of the euro. The amount outstanding of long-term debt securities issued by the private sector was 22% higher at the end of 2000 compared with the end of 1998. Probably the most significant development has been the rapid growth in the euro-denominated corporate bond market, which has increased several-fold in size since the launch of the euro and is now characterised by issues of above EUR 1 billion. EMU has also stimulated integration in the stock markets in the euro area, where structural developments have

been dominated by a series of high-profile mergers and attempted mergers.

Regulatory framework

The rapid growth achieved by European securities markets has taken place notwithstanding remaining regulatory obstacles to their integration. The European authorities are fully aware of the need to address this problem. Several obstacles have been identified in the recent Report of the Committee of Wise Men, chaired by Alexandre Lamfalussy. The Committee proposes to speed up the removal of impediments through the institutionalisation of two new regulatory committees for securities markets, which should allow for an increased harmonisation of securities regulation and less burdensome procedures for adapting Community rules to rapidly changing financial markets.

Another essential European initiative was the adoption by the Commission, in May 1999, of a programme for the completion of the Single Market for financial services. This programme, the Financial Services Action Plan, lists a series of measures with indicative priorities and timetables. The project considered as a whole and its inherent philosophy are capable of enhancing economic growth. In this perspective, a handful of specific initiatives deserve a particular mention. A first initiative is the adoption of the European Company Statutes, which is essential to enhance the level playing field between European firms and to provide a suitable legal framework for transnational conglomerates. A second important aspect is the Risk Capital Action Plan, which would help redirect financial flows towards high-growth small and medium-sized enterprises. Let me also mention the last four initiatives, namely the e-commerce policy for

financial services, the harmonisation of rules on the accounting requirements for European companies, the takeover bids directive, and finally the removal of accounting, legal and fiscal discrepancies hindering the cross-border use of collateral. A European directive on this subject should be adopted in 2003.

Many of these initiatives may appear to be unimportant and somewhat “esoteric” regulatory changes. However, they can provide a real boost to the smooth operation of markets and, therefore, to economic growth. For example, obstacles to the cross-border use of collateral prevent the further cross-border integration and consolidation of clearing and settlement infrastructures, thus hindering the integration of European money, bond and equity markets. A smooth electronic integration of trading, clearing and settlement operations would help reduce transaction costs substantially. The gradual dismantling of regulatory obstacles to the remaining market integration in Europe will contribute to enhancing their depth and efficiency, in turn contributing to an improved allocation of funds to the most profitable investment opportunities, and thus supporting economic growth.



What is the role of monetary policy and central banks?

Price stability

The interaction between financial markets, economic growth and monetary policy is by no means a new issue for central bankers. However, financial market developments have brought the question to the forefront of the policy debate. The continued

integration and deepening of financial markets is a significant issue for policymakers, and particularly for central bankers, since smoothly functioning and efficient financial markets are crucial in ensuring a smooth transmission of monetary impulses.

The best contribution that monetary policy can make to the smooth functioning and integration of European financial markets and to economic growth is to maintain a steady medium-term price stability orientation. Such a policy will be beneficial, as it will minimise the adverse effects of inflation and high inflation uncertainty. As we all know, price stability is beneficial in numerous ways. Not only does it create a climate for higher economic activity over the medium term, but it also reduces the economic and social inequalities caused by the asymmetric distribution of the costs of inflation among the various economic agents. In addition, in an environment of low inflationary expectations, inflation risk premia become relatively less important as a determinant of financial prices. As a result, other factors such as credit risk can play a larger role in the price formation mechanism. Ultimately, this results in a more efficient allocation of financial resources.

The approach of focusing on price stability is by now the conventional wisdom in industrialised countries. In the case of Europe, this consensus on the contribution of price stability in the medium term to promoting long-term growth is explicitly enshrined in the Statute of the European System of Central Banks (ESCB), which states unambiguously that “the primary objective of the ESCB shall be to maintain price stability in the medium term”. The ECB is convinced that by rigorously fulfilling this mandate monetary

policy is making its most effective contribution to the realisation of strong output growth and satisfactory employment prospects.

Financial stability and the role of central banks in banking supervision

Also the design of prudential regulation plays an important role from a growth perspective. Supervision is the guardian of financial stability, which in turn crucially determines the capability of the financial system to allocate resources efficiently and absorb liquidity shocks. Financial crises can have a deep and protracted impact on economic growth, as illustrated by several episodes of financial instability that occurred in many countries. The contribution of prudential supervision to economic growth proceeds along two dimensions. From a preventive perspective, supervision has to ensure a continuous and comprehensive monitoring of all the potential threats to financial stability. The role of supervision is also crucial after the emergence of a crisis, in order to provide for a swift and ordered resolution. Supervisors can only be effective in these two respects if they are able to pay sufficient attention to systemic issues, namely the risk of contagion effects. In order to address this issue in an effective way, they should be able to bridge the gap between information of a micro-prudential nature, namely information on the safety and soundness of individual institutions, and macro-prudential analysis, which encompasses all activities aimed at monitoring the exposure to systemic risk and at identifying potential threats to financial stability arising from macroeconomic or financial developments.

This line of argument would support a large role for central banks in supervision, since they have tradi-

tionally played a large role in macro-prudential analysis and the preservation of financial stability and they have acquired a strong expertise in this field. Furthermore, smooth access of central banks to micro-prudential information would also be profitable from the perspective of another traditional central banking task, namely the oversight of payment systems.

In spite of these arguments supporting a large role of central banks in supervision, the debate has remained broadly inconclusive in the economic literature so far, owing to the existence of opposite considerations. The first important argument against a large role for central banks is the so-called “conglomeration argument”, which crucially relies on the idea of a blurring of distinction between banking, insurance and securities firms. In order to preserve the level playing-field, all segments of the financial industry would have to be supervised under the aegis of a common supervisor. According to this line of reasoning, this “umbrella” could not be the central bank, since the latter is traditionally in charge of supervising monetary organisations. I will not embark upon a thorough analysis of this issue now. Let me just say that I am convinced that this argument has lost relevance in the current context characterised by a more market-based conduct of supervision – which alleviates the level playing-field concern – and by an increased relevance of systemic risk issues.

The second major argument against a large involvement of central banks in supervision is the alleged conflict of interest between monetary policy and prudential super-

vision. Many authors have argued that the institution in charge of monetary policy cannot be entrusted with supervision, because the monetary policy stance would be “contaminated” by supervisory issues, for instance the need to safeguard the liquidity of individual banks.

The advent of the euro, however, has shifted the balance of arguments decisively in favour of a large involvement of national central banks (NCBs) in supervision, for two main reasons. First, the argument of a



conflict of interest between monetary policy and prudential supervision becomes irrelevant within the euro area, where supervisory responsibilities are at the national level. Since the geographical jurisdictions of monetary policy and prudential supervision no longer coincide, NCBs in charge of prudential supervision are shielded from the traditional conflict of interest.

The second key factor is the increased relevance of systemic risk since the advent of the euro. The nature and scope of systemic risk have changed in a decisive way. A first decisive evolution is the growing integration of European financial markets in the euro area. As I have already mentioned, the interbank market, especially the unsecured segment, is already fully unified across the area owing to the disappearance of the currency risk and the connection of national real-time gross settlement systems via TARGET, the large-value cross-

border payment system of the Eurosystem. A second key evolution from the perspective of systemic risk is the growing merger and acquisition activity and the trend towards the emergence of financial conglomerates in Europe, which has, for instance, been identified in a recent G10 report on consolidation in the financial sector. In this new environment, financial institutions are increasingly involved in intricate networks of counterparties in the interbank market and via payment




and settlement systems, and the impact an unwinding of their positions could have on asset prices becomes even more ambiguous. These interrelations have a more international character than before the advent of the euro, which implies that supervision has to pay much more attention to euro area-wide developments. The national central banks of the euro area have a comparative advantage in this field owing to their responsibilities over payment and settlement systems, their traditional focus on systemic risk, and their role as components of the Eurosystem.

My conclusion is that the successful pursuance of financial stability in Europe, which is a prerequisite for economic growth, could benefit considerably if NCBs maintain and even reinforce their role in prudential supervision. The debate on the organisation of banking supervision seems to be taking a different course for the moment at least in a few euro area countries. Institutional arrangements based on a single supervisory authority for the financial systems as a whole seem to have gained momentum over the past months in some euro area countries like Ireland

and Finland, and also in your country, Austria, where a single supervisor for banking, insurance, securities and pension funds should be established early 2002 according to the recent draft Financial Market Supervisory Authority Act (Finanzmarktaufsichtsgesetz).

At first sight, this evolution runs counter to the need for a larger involvement of NCBs in prudential supervision. However, in this field implementation details are crucial. In particular, it is crucial that effective provisions for a close co-operation and a smooth exchange of information between the separate supervisory authority and the NCB are laid down. NCBs should in any case be entrusted with the task of safeguarding financial stability of the system as a whole and endowed with the instruments needed to pursue such an objective effectively. In this respect, an extensive operational involvement of NCBs in the conduct of prudential supervision is a key factor.

Conclusions

In concluding, I believe it is fair to say that EMU has already had a profound impact on the process of EU financial integration. The impact of the introduction of the euro as a single currency of twelve Member States has created the potential for large, deep and liquid euro-denominated financial markets, which should help to deliver high rates of output and employment growth in the euro area economy. This transformation in the financial and economic landscape entails certain potential risks, but it will provide many opportunities for enhanced efficiency and growth in the financial markets and economies in the euro area. I am convinced that the latter will prevail. 



SIR EDWARD GEORGE



Comparing Financial Systems: How Much Convergence?

The theme of this session is convergence of financial systems, within the context of the overall conference theme of *“The Single Financial Market – Two Years into EMU.”* What I propose to do this morning is to ask, first, what are we – or should we be – looking for in our financial systems; then to ask, second, what are the major driving forces that have been, and are, affecting our financial systems – including but not confined to EMU; and, finally, to offer some thoughts on how those systems might continue to evolve.

So let me begin by asking what should we look for in our financial systems. In answering that question, I could give you a long list of particular payments and savings services as well as credit, investment and insurance services, provided to individuals, to private organisations and businesses of all kinds, and to various levels of government. But that would be simply a description of our financial systems which do still differ in many respects as a result of history and tradition, of particular local needs, and of the state of evolution in individual countries. We are more interested in the essential purpose of our financial systems. And at the

very heart of that is their capacity to bring together financial resources not currently needed by their owners for expenditure on consumption or physical investment, and to channel those resources to wherever they can be most productively used – always allowing for risk.

The free movement of capital, like free trade in goods and services, is an immensely powerful means of promoting efficient resource allocation nationally, regionally and globally, and as such it can make a major



contribution to improving economic welfare – reducing poverty and raising living standards – which is, of course, what we all want to see. Certainly, the free movement of capital, like free trade, needs to be governed by rules designed to minimise distortions and unfairness, and to reduce the risks of intermediaries being unable to honour their commitments or of broader, systemic, instability. I do not pretend for a moment that it works perfectly in practice: we could all well do without the well-publicised institutional failures of recent years, for example, or the volatility which characterised the Asian financial crisis or the more recent “tech stock” bubble. But it is certainly the most effective means of financial resource allocation that we have so far discovered. The challenge is to make it work more effectively – more efficiently, both in terms of intermediation costs, and crucially in terms of the direction of the flow of resources – but also

more reliably and securely for both savers and borrowers. This is largely down to financial markets themselves. But it is a challenge, too, for the financial authorities who need to balance the need for market competition with the maintenance of minimum prudential and business behavioural standards by individual financial institutions, and the need to preserve overall macro-level financial stability. How far we are succeeding in meeting this challenge is, to my mind, the essential criterion against which we should seek to assess the development of our financial systems.

Against that background let me now try to identify some of the main drivers of change that have been, and are, affecting all our financial systems to varying degrees.

The first is financial deregulation, that is to say the relaxation of controls designed to override market forces in either an overall macro-economic or a directional sense. In the case of the UK, this extends back very importantly to the abolition of exchange controls and direct controls over bank lending over twenty years ago, to enabling building societies (our principal mortgage providers) to extend their range of financial services activities, to the opening up of membership of the Stock Exchange and broader capital market intermediation and so on.

Deregulation in this sense was both encouraged by, and in turn contributed to, increasingly intense competition within the financial services industry, including a blurring of traditional distinctions between different types of financial institutions. They were accompanied by what I think of as “re-regulation” that is to say more formal and structured regulation of both the prudential behaviour and standards of conduct of virtually all financial services

activity targeted more specifically at both institutional stability and consumer protection but, subject to that, leaving the market to do its job. Such regulation in the UK has now been consolidated in a single, over-arching, financial services regulator, the Financial Services Authority (FSA). The Bank of England remains responsible for macro-prudential oversight, that is to say the stability of the financial system as a whole, including oversight of payments systems. But we are no longer responsible for prudential banking supervision at the micro-level.

The re-regulation process, of course, conforms with the access provisions of the WTO and with internationally-agreed standards settled within the IMF. It incorporates the minimum standards of banking supervision agreed (and now subject to revision) under the Basel Capital Accord. It incorporates, too, those measures that have so far been agreed at the regional, European, level relating to a wider range of financial services activity in the context of progress towards the single financial market.

Whether or not these initiatives lead over time towards greater “convergence” of our financial systems in some structural sense – as they may – taken together with national deregulation they should at least contribute to greater competition, including cross-border competition, and help to improve the effectiveness of our financial systems in terms of the key criterion which I suggested earlier in my remarks.

That is particularly true, at least potentially, of the steps proposed to advance the European single financial market, as set out in the Commission’s Financial Services Action Plan, because of its broad scope. But progress has so far been painfully

slow. In that context I welcome the recent emphasis on closer and more active co-operation between financial regulators within Europe, regardless of national regulatory structures. And I particularly welcome the proposals put forward by Alexandre Lamfalussy and his “Wise Men” for accelerating progress on measures that would encourage greater efficiency in Europe’s securities markets. But there is clearly a great deal more that we can do in this whole area.



Such changes in national financial services regulation and related international and regional actions, taken together with increasing awareness in many parts of the world of the potential advantages of opening national financial markets to international competition, provide an encouraging environment for a second main driver of change in our financial systems – globalisation. It is a process we are particularly conscious of in London where major financial institutions from all over the world, including, of course, from elsewhere in Europe, have long been predominant players, especially in international wholesale market activity. But international ownership of banks (including newly privatised banks) and other financial institutions has increasingly become a common characteristic of financial systems in a wide range of other countries. I will not comment further on globalisation, which is certainly very familiar to you, except perhaps

to say that I have often been teased by people who talk about the Wimbledonisation of the City of London – meaning that we provide the tournament venue but the prizes are mostly carried off by competitors from overseas. I think that many of those people now increasingly understand that it is activity rather than nationality of ownership which creates a competitive market place and in turn provides employment and income and tax revenue, which are the things that really contribute to the macro-

our financial markets and no doubt still has a long way to go.

Other major drivers include: the effects of rising living standards, the associated increase in financial wealth and the consequences of ageing populations in many of our countries with a related emphasis on private pension provision. They include also the impact of fiscal policies which are now typically directed to limiting budget deficits and reducing public sector debt and of monetary policies directed at consistently low inflation

as a necessary condition for sustainable economic growth. Many of these trends seem likely to encourage a continuing relative shift in savings and investment patterns towards private sector capital market intermediation,



economy. As a broad generalisation the wider the range of participants the more efficient the market place.

A third major driver of change in our financial systems – as elsewhere in our economies – is, of course, information technology. This has clearly transformed transactions processing, putting a premium on throughput, and encouraging some forms of specialisation and consolidation. It has made possible entirely new – and typically much cheaper – means of delivering financial services making it easier for new entrants to contest existing franchises. It has facilitated the development of new financial instruments and investment strategies, and it has radically changed trading mechanisms. It should also have made it easier for both financial institutions and their regulators to measure, monitor and manage risk. But the electronic revolution, as it applies to our financial systems, has clearly had a very positive impact on the efficiency of all

although such intermediation will often be carried out by banks or within banking groups. I have no doubt that you can all think of other important drivers of change in our financial systems. And all of this before we even come to EMU!

Now, let me be clear, I agree with those who argue that the single currency – by eliminating exchange risk within the participating countries – can make a significant contribution to increasing the depth and liquidity of financial markets and reducing transactions costs within the euro area. And indeed it already has had that effect, particularly in money and bond markets, especially the corporate bond market. It has no doubt also been a factor encouraging the tendency to, mostly national, consolidation as financial institutions prepare for greater competition from other euro-based institutions in their national markets. All of this is very positive for the competitive efficiency of euro area financial

systems both nationally and within the euro area as a whole. It is in fact one of the two main potential economic benefits of the single currency, the other, of course, being the positive effect of nominal exchange rate certainty within the euro area on trade flows of goods and other, nonfinancial, services and its impact in more efficient resource allocation. It is also the field in which the UK, through London, has been able to make a positive contribution to the development of the euro even from outside the euro area.

So I do not at all underestimate the contribution that the euro has made, and is making, to improving the efficiency of the euro area financial systems. But the point I have tried to emphasise this morning is that it is just one important factor among a number of others affecting our financial systems, so that one should not perhaps expect that it would have had a dramatic overall impact – certainly not in so short a period of time. And my message is that there are many other things beyond the introduction of the single currency that we can and should do, whether from inside or outside the euro area, to improve the functioning of our financial systems.

Nationally, certainly within the UK, apart from continuing to try to find the right balance generally between competition and necessary regulation, we need also – through the authorities and the financial markets working together – to continue working to ensure that the financial system reaches those parts of the economy that are traditionally most difficult to get at, including particularly the encouragement of smaller and medium-sized businesses and new enterprises as well as community development and regeneration.

Regionally, within Europe, as I said earlier, we need to work away

at developing the single financial market, pressing on with the Financial Services Action Plan. Most immediately, in line with the Lamfalussy recommendations, we need to address some of the regulatory obstacles to greater integration of securities markets. And we need to encourage the markets to find more efficient solutions to trading, clearing and settlement systems, particularly in securities markets, but also more generally.

The main driver in this last context, certainly from the point of view of those who use these systems, is the wish to reduce costs. It is often pointed out that there are thirty plus exchanges in Europe and probably at least as many settlement systems – which are linked to a greater, but often to a lesser, degree, which operate under different legal and regulatory regimes and which all incur their own running and development costs. The fragmentation also means that market participants incur indirect costs because it is harder for them to manage their liquidity and collateral efficiently. So the general message, which commands wide support, is that some serious consolidation would be in order. The question however is how to bring this about.


I will not go into the technical debate about horizontal versus vertical integration, nor into the distinctions – which are nevertheless important – between trading, clearing and settlement. And there are other, less technical, influences too, including perceptions of national interest. But whatever the reasons, it is proving difficult for the markets to make real progress in these areas. In the face of this, there are those who argue for some outside party



to intervene and enforce consolidation. The outside party some seem to have in mind is the authorities in one guise or another. I have to say that I have doubts about the wisdom of such an approach. There is little reason to suppose that the authorities are likely to be any better than the private sector at finding the way forward. Nor is it obvious that national authorities have the locus or leverage to insist on a particular model. Much the same reservations would apply to any European level intervention. That said, what the public sector can contribute, in this area as in financial markets more generally, is a removal of barriers to competition, requirements on the provision of information and the easing of constraints on the effective functioning of the market. If consolidation does indeed take place, the public authorities may also have a role in ensuring that heavily concentrated market infrastructure pro-

viders do not exploit their position. But at a European level we are at present still some way from this situation.

And internationally we need to work together, within the WTO and the IMF, as well as within the various international regulatory and professional bodies, to promote the global free movement of capital, because in this context – as in the case of free trade – the potential benefits are not confined to national or even regional boundaries but increase within wider international participation.

We have come a long way in improving the effectiveness of our financial systems, and there are powerful forces at work pushing us in the right direction – including, within Europe, the introduction of the euro. But we still have a very long way to go. I have no doubt that the effort will prove to be worthwhile. 



FRANKLIN ALLEN



Comments on
Sir Edward George,
“Comparing Financial Systems:
How Much Convergence?”

Sir Edward George has given a very good summary of the role of the financial system. I would not disagree with anything he has said. Clearly, European Monetary Union (EMU) is one among a number of factors in determining the effectiveness of financial systems.

I would emphasize things somewhat differently, however. His comments on EMU were concerned primarily with positive aspects:

- first, with providing a more competitive market for financial services and,
- second, with increased efficiency due to the absence of exchange rate uncertainty.

An important issue obviously is what, if any, are the negative aspects of EMU?

As somebody who lives in the United States, one of the things that has surprised me most about EMU is

the lack of an academic debate at a theoretical level on this issue. The decision to create a European monetary union is clearly one that is susceptible to economic analysis. The theoretical papers that are quoted are often from many years ago. Mundell (1961), for example, comes to mind.

So what are the potential negative aspects of EMU?

- Inflation is one issue that is often focused on. Given that the European Central Bank is modeled on



the Bundesbank, I do not think that this is much of a concern.

- A more important issue is that of financial stability.

Today, I think, many regard the primary role of central banks as preventing inflation with a secondary emphasis on maintaining economic growth. This has not always been so. When the Bank of England was founded in 1694 its primary purpose was to raise money to fight the French. Some historians have argued that it was the superior financing ability of the British that allowed them to continually defeat the French throughout the 18th century despite the fact that the population of France was three times that of Britain.

By the 19th century the focus of central banks shifted more to financial stability and their role increasingly came to be to eliminate crises. The Bank of England was particularly important in this respect. The last true systemic crisis in the U.K. was

the Overend and Gurney crisis of 1866. Skilful manipulation of the discount rate allowed avoidance of many severe crises. For example, in May of 1873 there was a severe stock market crash in Vienna that triggered a major international crisis. It spread to many countries, but the U.K. avoided the worst of it. The techniques the Bank of England developed spread to other European countries, and crises became relatively rare in Europe.

The experience of the U.S. at this stage was quite different. In a report on the Second Bank of the United States, John Quincy Adams wrote: "Power for good is power for evil even in the hands of omnipotence." (Studenski and Krooss, 1963, p. 254). This quotation sums up the American distrust of centralized power of any kind. From 1836 until 1914 the U.S. did not have a central bank. It had many financial crises. On average, about every ten years there was a crisis.

In 1907 there was a particularly severe one that originated in the U.S. and then spread to many other countries. A French banker is reported to have commented: "The U.S. is a great financial nuisance." (Timberlake, 1978, p. 39).

The undertone is, of course, that "We sophisticated Europeans have solved the problem of crises. If only you unsophisticated Americans could get your act together we would all be much better off." The severity of the 1907 crisis reignited the debate on whether the U.S. should have a central bank. The outcome of this debate was the foundation of the Federal Reserve System (Fed).

The distrust of centralized power that John Quincy Adams' statement illustrates persisted and as a result the Federal Reserve System was very decentralized. This together with a lack of experience meant that the

Fed was unable to prevent the banking crises of the early 1930s. Many economists argue that it was the Fed's failure that led to the severity of the Great Depression. The Banking Crisis of 1933 resulted in a significant reform of the Federal Reserve System and power became much more centralized. Since then there have been no systemic crises in the U.S.

The U.S. experience with the Fed early in its history raises the important issue of whether the division of responsibility between the regulatory authorities, the national central banks and the European Central Bank is the correct one. I don't think we will be able to judge the success of EMU until this important aspect has been tested during a downturn. My own view is that a more centralized structure is desirable. The speed with which many crises develop is such that coordination between different entities becomes difficult. This could make dealing with the crisis problematic. Taking a long run perspective, the role of central banks in preventing crises is their most important job. It is, for example, much more

important than whether the inflation rate is 1% or 3%.

The other major issue facing EMU that Sir Edward was only able to hint at is the question of whether the U.K. should join. My own view is that it should. I think the positive aspects of EMU that Sir Edward emphasized outweigh the negative aspects in the long run.

For the U.K. there is a particularly important additional factor. This is the contribution that the financial services industry and in particular the City of London makes to the U.K. economy. In the short run it is difficult to believe that London will cease to be a major financial center. In the long run, if the U.K. does not join EMU, it is quite possible. ♪

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ERNST-LUDWIG VON THADDEN



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The Single Financial Market: An Assessment and an Outlook for the Future

I Introduction

In the first two years of its existence, the European Monetary Union (EMU) has been followed and discussed intensely by the public and often received mixed reviews. To a large extent these reviews have concentrated on the performance of the external value of the euro and have, quite superficially, equated the appreciation of the U.S. dollar during much of that period with a weakness of EMU. In this paper, I shall discuss another, and certainly more important side of EMU: that of an agent of change of European financial markets.

The paper reviews some early evidence on the performance and possible developments of European capital markets, after two years of EMU. Despite the euro's widely documented slide on the foreign exchange market, the assessment of this evidence is very favorable. On almost all counts EMU has either changed the European financial landscape already drastically or has the potential to do so in the future.

Whether this potential will be realized, however, depends on how the financial industry and politics adjust to the new situation. There have been astonishing positive developments, but also a number of disappointments. EMU has magnified the impact of the former and exposed the scope of the latter.

Although short-term influences have played a role, such as the catching-up effect after the double crisis of the Russian sovereign default and Long-Term Capital Management



(LTCM) in the fall of 1998, or the one-off positioning effect of new securities issues in the euro market, it is difficult not to see the euro as the major factor behind the remarkable transformation of European capital markets between 1998 and 2000. A corporate euro bond market has emerged whose issuing activity is beginning to challenge the previously dominant role of the U.S. dollar market. Primary issues in European equity have reached record highs in 1999, with whole new markets becoming prominent internationally, such as the Neue Markt in Frankfurt or Italy's Nuovo Mercato (the stock market breakdown of 2000 has been another, less welcome sign of Europe's catching up with the U.S.). Europe-wide indices have been established. Portfolios are now predominantly allocated along pan-European sectoral lines rather than on a country basis. Not only has Eurex, the German-Swiss exchange founded in 1998, caught up with

other large exchanges, but by the end of 1999 it had overtaken the Chicago Board of Trade by a clear margin to become the world's largest derivative exchange. In 2000, it even expanded its lead. TARGET, the pan-European settlement system, has been a success, and even during the difficult first months of EMU, liquidity has flown relatively smoothly across EMU member countries. Banks all over Europe have merged or formed alliances on an unprecedented scale, drastically changing the national banking environments and beginning to create international firms and networks. Cross-border mergers in all industries have increased strongly, giving rise to record volumes in the European merger and acquisition industry.

This paper argues that part of this development could have been expected as the consequence of what I call the direct effects of the euro. The less immediate potential consequences of the euro, some of which are discussed below, could not have been counted on, however. They occurred because market participants took the creation of the single currency as a signal for change in the European financial market and coordinated their expectations accordingly. Policymakers, regulators, and supervisors will have to be careful not to disappoint these expectations and to push ahead with the reform of European capital markets. European political leaders seemed to have understood this when they adopted the European Commission's Financial Services Action Plan at the Lisbon summit in March 2000. But while the Financial Services Action Plan has still been relatively broad and sometimes vague, a relatively focused report was produced by the Lamfalussy Committee of Wise Men in February

2001 and adopted at the European Council meeting in Stockholm in March 2001. This report maps a clear path to reform in some important areas of European capital markets and is likely to either eliminate or to clearly expose some of the last remaining obstacles to full integration of European financial markets. If national politics wants to, the successful evolution of EMU's first two years is likely to continue.

2 Global Financial Markets before EMU

As a benchmark some data on global financial markets prior to EMU are useful. For 1995, table 1 shows that the combined value of equities, bonds, and bank assets outstanding in the 11 EMU countries in 1995 was USD 21,084 billion, almost equaling the USD 22,865 billion in the U.S. The reason for the high European value are bank assets; the size of the U.S. bond market exceeded the European one by 57%, and the U.S. stock market its European (EU 11) counterparts by 224%. On the other hand, the European bond market was larger than the Japanese (by 31%), and the Japanese stock market significantly larger than the EU 11 one (by 73%).

Consistent with the relative size of the U.S. stock market, turnover

on U.S. stock exchanges was much larger than in Europe. In 1996, turnover on the New York Stock Exchange alone was 134% higher than that of all stock exchanges of EU 11 countries taken together, and still 40% higher than that of all stock exchanges in the EU (including London). Similarly, the world's largest derivative exchanges were in Chicago (CME, CBT).

In 1997, USD 456 billion of international bank lending were done in U.S. dollars and approximately USD 251 billion in euro legacy currencies. In the same year, USD 329 billion of all international debt securities issues were in U.S. dollar, and USD 135 billion in euro area currencies, with total issuing activity in the U.S. standing at USD 175 billion.

These and other indicators show that in the mid-1990s, in the aggregate and with the exception of bank assets, U.S. capital markets were significantly larger than European ones, and the U.S. dollar the dominant international currency.

3 Direct Effects of EMU

The direct effects of European Monetary Union can be classified into five categories. These effects are similar to those put forward in the famous report by the European Commission (1990) on "One Market, One

Table 1

Comparison of International Capital Markets in the Year 1995							
	GDP	Stock market capitalization	Bank assets	Debt securities			Total assets ¹⁾
				Private	Public	Total	
	USD billion						
EU 11	6,804	2,119	11,972	3,084	3,910	6,993	21,084
Denmark	173	56	156	188	142	330	542
Sweden	229	178	203	186	233	419	800
U.K.	1,106	1,408	2,424	396	430	826	4,658
U.S.	7,254	6,858	5,000	4,295	6,712	11,008	22,865
Canada	566	366	516	93	589	682	1,565
Japan	5,114	3,667	7,382	1,876	3,450	5,326	16,375

Source: IMF.

¹⁾ Total assets = stock market capitalization + bank assets + debt securities.

Money.” Some of them are relatively straightforward to estimate, others are more elusive, as the Ceccini Report makes clear.

- *Standardization and transparency in pricing.* The direct gains consist mostly of the time saved comparing or posting prices in several currencies and the value lost in suboptimal transactions by imperfectly informed participants.
- *The elimination of intra-European currency risk.* Although the anticipation of EMU had reduced exchange rate volatility among a few EMU member states in the second half of the 1990s to very low levels, exchange rate risk had been an important component of intra-European market risk even in the 1990s. This risk declined over the decade and was quantitatively much smaller than non-EMU currency risk (in particular the risk associated with the U.S. dollar).
- *The elimination of currency-related investment regulations.* Despite the European Commission’s second banking and investment services directives, there exist still a number of obstacles to intra-European capital flows. EMU has de facto eliminated an important obstacle, the restriction on foreign currency-denominated asset holdings of pension funds and life insurance companies, at least for EMU member states. Yet, the available evidence shows that, in the early 1990s, the so-called 80% rule was usually not a binding restriction, which suggests that the introduction of the euro did not automatically trigger a reallocation of institutional investment.
- *The unification of bank refinancing opportunities across EMU member states.* As of January 1999, the

different national bank refinancing systems were replaced by one single mechanism. Liquidity now is provided EMU-wide by the European Central Bank on the basis of weekly reverse transactions, executed by the national central banks through standard tenders.

- *The shrinking of the foreign exchange market.* Average daily foreign exchange transactions between EMU legacy currencies were worth approximately USD 125 billion in 1998, around 6.3% of total global transactions. This trading volume simply disappeared between December 31, 1998, and January 1, 1999. Yet, already between 1995 and 1998 intra-EMU currency transactions fell from USD 201 billion to USD 125 billion, presumably because the euro eliminated speculative or hedging motives. However, as also U.S. dollar vehicle trades between European currencies have disappeared, the direct loss of currency trading is probably considerably higher than these USD 201 billion or 13% of all global transactions. While for banks this fall in trading volume has caused a corresponding decrease in revenues, it represents, of course, an overall economic gain.

4 Indirect Effects of EMU

Theory predicts that the direct effects of the single currency discussed above typically induce additional indirect effects, which may be quantitatively more important, but also more difficult to assess. I will briefly review five different groups of indirect effects: the cost of cross-country transactions within the EMU area, the availability of liquidity to financial institutions across the euro area, the depth of

European financial markets, the breadth of these markets, and the changes in the banking sector that have been stimulated by EMU.

4.1 Retail Transaction Costs

In addition to the direct reductions in transaction costs through improved transparency, the single currency has had little impact on the costs of transacting inside the euro area. Yet, it has made the existing obstacles and inefficiencies for trade across EMU member frontiers more visible, for market participants and policymakers alike. It has become blatantly clear that within Europe, cross-border payments and securities settlement are more expensive, lengthier, riskier, and less standardized than domestic ones.

For instance, a study by the European Central Bank in 1999 found that fees charged to customers for domestic credit transfer rarely exceeded EUR 0.10 to 0.15, while for cross-border transactions inside the euro area these fees varied between EUR 3.5 and 26 for small amounts and between EUR 31 and 400 for higher amounts, where banks in some countries even added additional charges, such as for balance of payments reporting. Cross-

border payments needed more than double the time to reach their destination than domestic payments, with substantial variation between countries. Furthermore, the euro area has 18 large-value systems (the U.S. has two), 23 securities settlement systems (three in the U.S.), and 13 retail payments systems (three in the U.S.). Differences in taxation, legislation, and accounting standards create further well-known obstacles.

EMU has provided new urgency to policymakers to address these problems. The establishment of TARGET and Euro 1, the settlement systems for large transactions of the European System of Central Banks and the European Banking Association, respectively, and the implementation (in August 1999) of the EU Directive 97/5/EC of January 1997 on cross-border credit transfers are some of the most visible steps taken in that direction. The proposal in early 2000 by the European Committee for Banking Standards for a common standard of payment definition and routings was a further useful step.

Yet, the private sector has taken more time to address the problems in cross-border payment systems

Table 2

International Composition of Euro Area Bank Balance Sheets ¹⁾				
	End-1997	End-1998	End-1999	Growth 1997 to 1999
Total interbank claims (EUR billion)	4,673	4,964	5,366	
of which				
domestic (%)	63.2	64.5	64.5	17.2
within euro area (%)	14.7	16.3	17.6	37.5
Total loans (EUR billion)	9,758	10,350	11,070	
of which				
domestic (%)	79.2	79.8	79.8	14.3
within euro area (%)	7.4	8.1	8.7	33.4
Total deposits (EUR billion)	9,147	9,780	10,510	
of which				
domestic (%)	75.4	74.4	72.8	10.9
within euro area (%)	9.6	10.2	10.3	23.3

Source: ECB.
¹⁾ Sample comprises all resident banking institutions in the euro area, defined as "Monetary Financial Institutions other than central banks" by the ECB. "Domestic" and "within euro area" do not add up to 100, because business with the rest of the world is omitted.

than many observers had wished. In particular, the hope, expressed by the European Central Bank, that the industry “make a considerable improvement in this field [cross-border payment systems] very soon” (Monthly Bulletin, June 1999) has been repeatedly disappointed, also because of the coordination problem inherent in competing payment standards. Yet, perhaps because of increasing public pressure, despite the long delay, there has been progress. In November 2000, member banks of the European Banking Association launched STEP 1, a processing facility for retail payments on the Euro 1 clearing platform, that is to cut processing times for international transfers significantly. And in May 2001, the European Banking Association announced that its members had agreed to a system of significantly reduced flat fees for cross-border payments.

4.2 Liquidity Distribution and Interbank Markets in the Euro Area

The unification of central bank refinancing possibilities for banks after EMU should help, as an indirect effect, to provide a level playing field for financial institutions and to equalize their costs of capital across Europe. In practice, however, access to refinancing facilities has remained uneven and liquidity redistribution through secondary markets imperfect. This issue is important because the distribution of liquidity through the auctions of the European System of Central Banks is necessarily imperfect, an imperfection that is exacerbated by the decentralized operational procedure of the system that is based on the old national monetary infrastructures.

Although overnight interbank bid-ask spreads in 1999 tended to be higher than in 1998 in most

EMU countries (for reasons that are not entirely clear), the unsecured money market seems to have worked relatively well from the start of EMU on (also because of the relative success of TARGET). EURIBOR, the new Frankfurt based short-term interbank rate, was accepted as the reference rate within weeks by the market, and, driven by this standard, overnight interest rates have converged completely.

Any difficulties in the distribution of liquidity across Europe seem rather due to imperfections in the cross-border repo market. On the one hand, overnight repo rates in the euro area have almost fully converged during the course of 1999, suggesting that the system is working well enough to arbitrage away price differentials. On the other hand, the European interbank market even in 2000 was still seriously fragmented along national lines, due mostly to difficulties with national differences in the treatment of collateral. Fortunately, there were few challenges to the system in 1999 and 2000 that would have required large movements of secured funds across borders. Hence, the main problem of EMU repo markets, the absence of an efficient system of links between national securities settlement mechanisms, still requires the attention of policymakers and market participants. As in other areas, the Lamfalussy Report, with its recommendation of the principle of mutual recognition for wholesale markets, has shown how to address these problems.

The Eurosystem’s pragmatic temporary solution to the problem, the Correspondent Central Banking Model (CCBM), is not likely to be easily upgradeable, because it is neither automated nor real-time, nor direct. On the other hand, the emergence of competing centralized

systems or the upgrading of links between partial systems may give rise to similar coordination problems as those mentioned above for payment systems.

4.3 Capital Market Depth

The problem of remaining transaction costs notwithstanding, by eliminating currency risk EMU has put traders in foreign euro-denominated assets on an equal risk base with domestic traders. Together with the increase in transparency resulting from the single currency, this has greatly reduced the barriers to trading such assets. In this sense, EMU has improved the demand side of the market for each asset traded in the euro area, i.e. it deepened the market. To the extent that deeper markets indeed give rise to increased trading, the single currency therefore has reduced liquidity risk.

However, an important theoretical feature of markets with transaction costs and liquidity risk is the possibility of multiple equilibria. In such markets depth is endogenous, and "virtuous circles" of high trading activity and low liquidity risk are as much possible as "vicious circles" of low trading and high liquidity risk. When assessing the impact of the euro on liquidity it is, therefore, important not only to add up the different pre-euro domestic markets, but also to evaluate the relationship between market prices, trading volume, the number and size of participants, and transaction costs in the market after EMU.

This analysis is beyond the scope of the present paper. But the experience of the past two years has shown that markets have indeed deepened considerably, although there is still scope for further integration of the public bond market. Private bond and primary equity markets have integrated and expanded at a speed

and to a point where it is possible to speak of an equilibrium switch. Secondary equity markets have benefited from the historical upswing of equity markets that lasted until 2000, but have been hampered mainly by the institutional difficulties of integrating stock exchanges or settlement systems across borders.

A look at the bond market provides an example of the successes and limitations of market deepening under EMU. Public bond markets in the euro area cannot expand much in the foreseeable future because of the limitations on government debt imposed by the 1996 Stability and Growth Pact. Yet, an important indirect effect of EMU has been the significant degree of homogenization of public debt markets achieved in its wake. Following the obvious decision by EMU member states to issue all new public debt in euro as of January 1999 (which would not have created a market big enough to rival the U.S. or Japanese markets), the most important decisions in this respect were the redenomination of outstanding fungible public debt and the homogenization of bond conventions (such as day count).

Yet, issuing practices have not been fully harmonized, so that the public bond market is not perfectly integrated. In fact, although the yield curves have converged considerably, euro area government bonds are still not perfect substitutes, as is evidenced in the evolution of government bond yields given in table 3.

Presumably, part of the yield differentials shown in table 3 are due to the differences in fundamental risk. But table 3 shows that, even within the group of top-rated coun-



Table 3

Government Bond Benchmark Yields 1998 to 1999, Selected Countries											
Two-year bonds											
	August 1, 1998	October 1, 1998	December 1, 1998	February 1, 1999	April 1, 1999	June 1, 1999	August 1, 1999	October 1, 1999	December 1, 1999	February 1, 2000	April 1, 2000
	%										
Germany	3.887 ¹⁾	3.297 ¹⁾	3.257 ¹⁾	2.886 ¹⁾	2.845 ¹⁾	2.841	3.479	3.765	3.986	4.368	4.441
Austria	4.077	3.483	3.479 ²⁾	3.041 ²⁾	2.957	2.984	3.675	3.737	4.300 ²⁾	4.570	4.606 ²⁾
Belgium	4.017	3.436	3.351	2.955	2.944	2.851	3.408 ¹⁾	3.607	3.947 ¹⁾	4.606 ²⁾	4.564
France	3.997	3.405	3.306	2.934	2.857	2.928	3.466	3.747	4.113	4.376	4.363
Ireland	4.508 ²⁾	3.563	3.355	2.959	2.884	3.009 ²⁾	3.520	3.911	3.979	4.324 ¹⁾	4.350 ¹⁾
Italy	4.342	3.753 ²⁾	3.463	3.011	3.007 ²⁾	2.971	3.711 ²⁾	3.913 ²⁾	4.127	4.458	4.597
Netherlands	3.970	3.477	3.370	2.950	2.951	2.925	3.483	3.904	4.192	4.472	4.477
Spain	4.127	3.525	3.304	2.899	2.860	2.806 ¹⁾	3.364	3.507 ¹⁾	4.200	4.565	4.599
Max-min ³⁾	0.621	0.456	0.222	0.155	0.162	0.178	0.347	0.406	0.353	0.282	0.256
Max-min ⁴⁾	0.190	0.186	0.222	0.155	0.112	0.143	0.109	0.167	0.314	0.202	0.243
U.K.	6.697	5.442	5.213	4.784	4.807	5.191	5.786	6.227	6.219	6.444	6.330
U.S.	5.464	4.146	4.429	4.642	4.988	5.514	5.605	5.705	6.018	6.566	6.427

Ten-year bonds											
	August 1, 1998	October 1, 1998	December 1, 1998	February 1, 1999	April 1, 1999	June 1, 1999	August 1, 1999	October 1, 1999	December 1, 1999	February 1, 2000	April 1, 2000
	%										
Germany	4.617¹⁾	3.791¹⁾	3.940¹⁾	3.644¹⁾	3.982¹⁾	4.173¹⁾	4.939	5.140¹⁾	5.136¹⁾	5.505¹⁾	5.219¹⁾
Austria	4.768	4.088	4.154	3.826	4.147	4.355	5.144	5.357	5.351	5.746	5.486
Belgium	4.831	4.096	4.191	3.900	4.228	4.462	5.212²⁾	5.453²⁾	5.389	5.774²⁾	5.481
France	4.724	3.968	4.000	3.747	4.101	4.333	4.864¹⁾	5.225	5.304	5.677	5.368
Ireland	4.862	4.100	4.122	3.844	4.053	4.284	4.986	5.388	5.269	5.627	5.353
Italy	4.927²⁾	4.304²⁾	4.180	3.901	4.235	4.505²⁾	5.187	5.408	5.351	5.756	5.503²⁾
Netherlands	4.704	3.942	4.022	3.785	4.118	4.375	5.020	5.316	5.245	5.592	5.339
Spain	4.892	4.246	4.212²⁾	3.911²⁾	4.287²⁾	4.478	5.175	5.371	5.355²⁾	5.741	5.441
Max-min³⁾	0.310	0.513	0.272	0.267	0.305	0.332	0.348	0.313	0.253	0.269	0.262
Max-min⁴⁾	0.151	0.297	0.214	0.182	0.165	0.202	0.280	0.217	0.215	0.241	0.262
U.K.	5.700	4.623	4.640	4.184	4.522	4.895	5.271	5.741	5.227	5.586	5.195
U.S.	5.447	4.299	4.661	4.746	5.281	5.764	5.909	5.988	6.205	6.431	5.829

Source: Datastream.

¹⁾ Minimum.

²⁾ Maximum.

³⁾ Percentage point difference between highest and lowest yield.

⁴⁾ Percentage point difference between highest and lowest yield when comparison is restricted to AAA-rated countries (Germany, Austria, France and the Netherlands).

tries, some yield differentials exist and even fluctuate differently across the yield curve. The most important explanation for these differentials are liquidity considerations. In fact, markets have traditionally attached a higher liquidity risk to non-German public bonds than to German ones, with the exception of some shorter maturities, where French and sometimes Italian issues have had a traditionally liquid market. Partly this has been due to the large issuing volumes and partly to the liquidity of the futures contracts for German long-term debt. Given the elimination of currency risk, the identical fundamental risk for the top issuers, and the fact that the German ten-year futures contract now seems to serve long-term bonds across Europe, the market presently seems to exhibit the type of equilibrium behavior discussed earlier: Since yields across different sovereigns are different, the markets for these issues are, by definition, segmented, which implies that the liquidity risk in the smaller segments is higher, which translates into differentiated yields, closing the vicious circle.

In view of this reasoning it is possible that the public bond markets of Germany, France, the Netherlands, Austria, and Luxembourg will in future, without much policy action needed, shift from one equilibrium to another to become one fully integrated single market, simply because of changing market perceptions. In fact, if the recent trend by institutional investors continues, which is to disregard fundamental risk and segment the market fully along traditional liquidity lines (with Germany in a first tier, then France and Italy, and then the other countries), then already little further coordination of EMU public debt management may be sufficient to create a fully integrated and highly liquid EMU public debt market. Interestingly, the Giovannini Report of November 2000 found little need for a large coordination effort in public bond issuing practices inside EMU, arguing that the expected costs would probably more than outweigh the expected reductions in yield spreads. However, in the multiple-equilibrium perspective discussed above, small advances in the coordination of public debt markets

may be enough to bring about large consequences in consolidating these markets.

For the private bond market, the data point to more than high potential, they indicate a fundamental switch of market behavior. Although the euro-denominated corporate bond market slacked off slightly in 2000, it has quadrupled in size between 1998 and 2000. While until 1998 bond distribution in the euro area for all but the very few largest firms was almost exclusively domestic, the larger bond issues since 1999 were sold on a truly European scale, which even surprised most market participants. Furthermore, and differently from the public bond market, the European private bond market has become more liquid also because of pure growth on the supply side. Here, the boom in mergers and acquisitions in Europe, fueled by the liberalization of several important industries in different countries, has played an important role.

Table 4 provides a global view of the evolution of bond issues. It shows, in particular, that global net issuing activity in euro in 1999 exceeded the U.S. dollar volume by

Table 4

Net Issuance of International Debt Securities		1998	1999	2000
by Currency and Region ¹⁾				
		USD billion		
Europe	U.S. dollar	68.6	54.9	176.6
	Euro	156.5	488.5	378.5
	Total	254.0	627.3	686.2
North America	U.S. dollar	257.2	435.5	320.5
	Euro	24.8	45.6	47.7
	Total	296.9	494.9	398.8
Others	U.S. dollar	83.7	54.5	45.7
	Euro	39.9	36.9	14.8
	Total	127.6	92.8	53.2
Total	U.S. dollar	409.4	545.0	542.7
	Euro	221.3	571.0	441.0
	All currencies	678.5	1,215.1	1,138.3

Source: BIS.
¹⁾ Flow data for international bonds; for money market instruments and notes, changes in amount outstanding.

11%, after it had been only 54% of the U.S. dollar total in 1998 and significantly less before. This explosion of euro issues (compared to the euro legacy currencies) was mostly due to the spectacular increase in issuing activity in Europe between 1997 and 2000. However, table 4 also shows that the 1999 figures reflect a certain catching-up effect after the autumn 1998 crisis and short-term positioning activity in early 1999, as the U.S. dollar has overtaken the euro again in 2000. Yet, even when only viewed between 1998 and 2000, the data point to an enormous change in bond market behavior following the introduction of the euro: the U.S. dollar's share of global bond issues fell from 60% in 1998 to 48% in 2000, while the euro's share rose from 33% to 40%.

4.4 Diversification

The second main benefit of increased market size resides in better diversification possibilities. In theory, the reduction of costs and risks of cross-border transactions allows investors to better spread the fundamental risk of their asset holdings and to rebalance portfolios toward assets that previously were too costly in terms of the risk-return tradeoff of standard portfolio theory, typically toward foreign ones. The problem with this theoretical argument is that it is known to be flawed. As documented repeatedly in the 1980s and early 1990s, the share of international equity in total equity holdings by domestic investors has traditionally been too small to be compatible with the standard portfolio model (the so-called home-bias puzzle).

It is tempting and probably more plausible to argue instead that the historical equity home bias is better explained by informational problems faced by domestic investors when

valuing foreign securities. In this view, the lack of transparency and trading opportunities in continental European firms as well as the weakly developed equity culture of European investors explain the paucity of equity flows into and out of Europe until the 1990s, while the change in both these features in the course of the 1990s explain the observed increases of equity flows. EMU then fosters market integration, not by eliminating foreign exchange risk, but by improving information flows and by reorienting traditional international asset allocation methods from a country basis to a pan-European industry basis. According to this theory, if international transaction costs are high, only few firms will find it profitable to change their portfolio strategies, but if these costs come down, a major shift in intra-European portfolio allocation can occur.

This is exactly what has been observed between 1998 and 2000. While according to surveys in 1997 only 20% of European equity managers believed that a portfolio allocation based on sectoral criteria was superior to a country-based allocation, at the end of 2000 75% preferred the sectoral approach to European equity investment. In parallel, pan-European benchmarks such as the Stoxx or FTSE Eurotop indices, have developed and supported the broadening of the European equity markets reflected in the record turnover on European primary and secondary equity markets in 1999 and 2000.

A necessary prerequisite for a further broadening of capital markets in the euro area is institutional integration, in particular with respect to back-office operations and settlement procedures. For stock exchanges, the existing overcapacity of exchanges and the incompatibil-

ities among them, on regulatory, technical, and personal grounds, have posed bigger problems in the past few years than expected. EMU has exposed these problems very clearly and accelerated efforts in the markets to overcome them. Examples such as the creation of Euronext or the plan of the European Securities Forum in October 2000 to create a single counterpart and netting facility for all European equities are encouraging, but the failed merger between the London and Frankfurt stock exchanges shows that the obstacles to integration in this area are still high. On the other hand, in the area of bonds and derivatives, there has been some remarkable progress: Euro MTS, the trading platform for public bonds, and, Eurex, the derivatives exchange created by the merger of the German DTB and the Swiss Soffex, have surpassed all expectations.

4.5 Banking

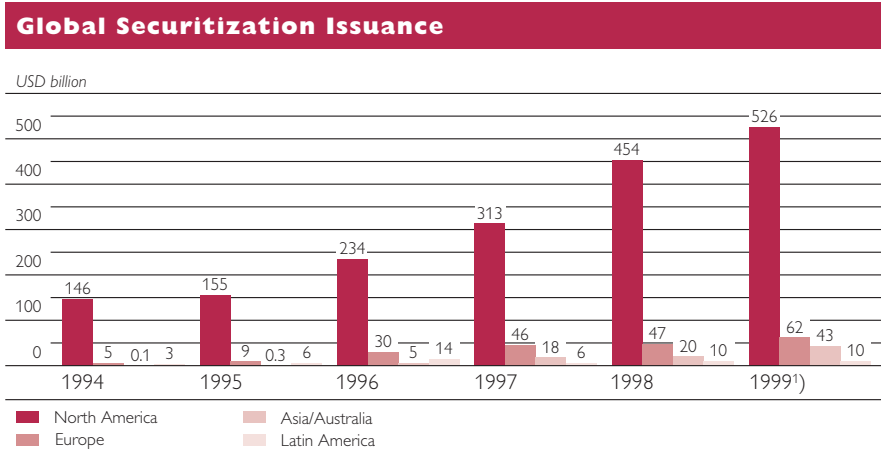
The main players in the European capital markets, banks, have been affected by EMU in different ways. In particular, while the changes in capital market activity tend to hurt the traditional deposit and lending

business of commercial banks (by producing a “shift from banks to markets”), they benefit the more market-based asset management and investment banking activities. In fact, by securitizing assets, banks at the same time contribute to the development of new sectors of the capital market and profit from it. As figure 1 shows, after its early success in the 1980s and early 1990s, mostly based on mortgages and auto loans, securitization has continued to grow strongly in the second half of the 1990s in the U.S. and seems to gain importance in Europe.

In the same vein, the tendency to replace bank loans by traded debt in the financing of large firms, as evidenced in the evolution of the private bond market outlined in section 4.3, will not make banks redundant. To the contrary, even traditional commercial banking still plays an important role in this changed environment, not only because of the increasing importance of syndicated loans, but also by the provision of liquidity through lines of credit.

However, in order to realize the potentials of the Single European Market and EMU, banks have had

Figure 1



Source: Moody's Investors Service.
1) Estimated.

to adjust significantly in the past few years and will probably have to adjust even more in the future. This adjustment involves refocusing, cost-cutting, and technological and organizational innovation and has been sometimes painful and often slow. The available evidence indicates that there is considerable variation in cost efficiency of European banks, with little evidence for size inefficiencies among commercial banks, but for large average managerial inefficiencies (deviations from industry best practice), which have been, however, declining between 1993 and 1997. Furthermore, large banks tend to benefit most from scale economies and technological progress, and universal banks are at least not less efficient than specialized ones. In fact, the available data suggest that the recent trend toward de-specialization and size in European banking tends to increase efficiency.

One of the indicators of industry change is the evolution of bank mergers in Europe during the 1990s (see table 5). While there has been a steady stream of mergers in European banking throughout the 1990s, declining from a peak in absolute numbers in the early 1990s, the value of transactions has grown by over 500% in 1997 and 1998 compared to the previous periods. The merger wave has meant first and foremost the creation of larger banks, and second a beginning cross-border expansion. Compared to other sectors, bank mergers throughout the 1990s have been largely domestic; still in 1997 and 1998, 70% of all bank mergers in the European community were domestic, compared to 51% for all mergers. Yet, the number for 1997 and 1998 is down from 78% over the period from 1989 to 1995, and the data for 1999 confirm this downward trend. It seems that the

Table 5

Mergers and Acquisitions in the Banking Sector ¹⁾												
	Number of transactions				Value of transactions							
	1991 to 1992	1993 to 1994	1995 to 1996	1997 to 1998 ³⁾	1991 to 1992	1993 to 1994	1995 to 1996	1997 to 1998	1991 to 1992	1993 to 1994	1995 to 1996	1997 to 1998
	Number				USD billion				% of all sectors ²⁾			
U.S.A.	1,354	1,477	1,803	1,052	56.8	55.3	114.9	362.4	18.7	9.0	10.6	18.2
Japan	22	8	14	28	0.0	2.2	34	1.1	0.3	18.8	21.6	4.1
Euro area ⁴⁾	495	350	241	203	17.5	14.6	19.1	100.4	8.3	9.3	11.2	27.1
Belgium	22	18	20	21	1.0	0.6	0.5	32.5	14.1	7.0	4.9	34.8
Finland	51	16	7	7	0.9	1.0	1.2	4.3	22.3	21.7	7.4	77.5
France	133	71	50	36	2.4	0.5	6.5	4.0	4.3	1.0	9.8	4.1
Germany	71	83	36	45	3.5	1.9	1.0	23.2	6.5	7.6	3.7	45.5
Italy	122	105	93	55	5.3	6.1	5.3	30.1	15.6	17.7	24.9	63.3
Netherlands	20	13	8	9	0.1	0.1	2.2	0.4	0.2	0.5	17.5	0.8
Spain	76	44	27	30	4.3	4.5	2.3	5.9	13.5	21.5	14.1	26.6
Sweden	38	23	8	8	1.1	0.4	0.1	2.1	3.8	2.0	0.3	7.1
Switzerland	47	59	28	22	0.4	3.9	1.0	24.3	9.5	43.4	2.4	78.3
U.K.	71	40	25	17	7.5	3.3	22.6	11.0	6.5	3.4	10.4	4.0
Total banks	2,098	2,032	2,162	1,360	84.7	83.2	200.8	534.2	11.7	8.5	11.0	18.9
Memo item: Total nonbanks financial	2,723	3,267	3,973	5,156	63.7	122.2	189.9	534.2	8.8	12.5	10.4	19.4

Source: BIS.
¹⁾ Classified by the industry of the target; only completed or pending deals; announcement date volumes.
²⁾ Of mergers and acquisitions in all industries.
³⁾ As of October 30, 1998.
⁴⁾ Excluding Austria, Ireland, Luxembourg and Portugal.

recent evolution of bank mergers shows a kind of “pecking order,” in which banks first merge nationally, then across borders inside restricted geographic regions (such as the Benelux, the Scandinavian, or the Mediterranean countries), and finally reach out across all of Europe. Whereas this last step still seems to be a thing of the future, the failure of the merger between Deutsche Bank and Dresdner Bank in April 2000 may, in fact, indicate that even in the large national markets the time of domestic mergers begins to run out.

5 Outlook

This paper has argued that with EMU the European capital market has changed drastically. Yet, this change is not irreversible. In fact, what I have called the indirect effects of EMU are largely based on a change in market expectations about the functioning of the market, and such expectations can easily change again. It is, therefore, highly important for policymakers, regulators and the European System of Central Banks alike, to live up to these expectations and provide the necessary clarity and firmness for the management and continued reform of European financial markets.

Many areas for such activity exist, some of which I have touched upon in the previous sections. In the area of banking consolidation, for instance, national governments have no active pro-European stance, old-fashioned national rhetoric still dominates when it comes to takeovers of large domestic banks by foreigners. In the area of cross-border payment and security settlement systems, the European market lacks the necessary unified infrastructure that would allow a truly unified market to function efficiently. Implicit or explicit discrimination against for-

eign investors in tax or accounting standards still exists. Deficiencies and incompatibilities of the data collected and provided by national authorities make the goals and actions of financial regulation and monetary policy less transparent than in the U.S.


Most of these shortcomings and dangers have finally been recognized by regulators and legislators and their academic assessment is fairly uncontroversial. There are, however, several areas where the academic



debate still has not yet reached a consensus. Most important among them is the question of banking supervision in the euro area. It is well recognized that the dispersion of financial market regulation and supervision across a multitude of national and transnational institutions reduces transparency, increases uncertainty, and may present a real danger in case of a crisis. Yet, concentration of supervision is not a panacea, as financial supervision is a multi-dimensional problem. In particular, there is a case to be made in favor of concentrating the supervision of all financial services under one roof, an approach pioneered by the United Kingdom with its Financial Services Authority. However, concentrating financial supervision across all branches of the financial services industry and all countries is likely to create a regulatory monster with little effectiveness. Therefore, the costs and benefits of bundling supervisory functions along

different dimensions still needs to be clarified further.

On the political front, the European Commission's Financial Services Action Plan and the Lamfalussy Report of February 2001 list most of the shortcomings discussed above fairly clearly. Yet, the real difficulty lies in bringing about the necessary changes politically. Here, the European Union has a less than satisfactory track record, judging from the difficulties in adopting and implementing the important EU directives of the 1990s. The takeover directive, after 12 years of debate between

national law makers, industry, and the Commission voted down by the European Parliament in June 2001, is an alarming case in point. For this reason, the institutional side of the Lamfalussy Report, with its proposal for a concrete "fast-track approach" to decision-making and implementation, is most innovative, and may well turn out to be the most important piece of financial reform in the European Union for years. But not unexpectedly, opposition to precisely this aspect of the report is already mounting. 



HELMUT REISEN



Will Basel II Contribute to Convergence in International Capital Flows?¹⁾

I Introduction

On 16 January 2001, the Basel Committee on Banking Supervision (Committee, 2001) released the second consultative package on the New Basel Capital Accord (Basel II). The proposal modifies and expands a proposal issued for comment in June 1999 (see Committee, 1999; Reisen, 2000) and describes the methods by which banks can determine their minimum capital requirements. Comments were due on the proposal by 31 May 2001.²⁾

1 The author wishes to thank Richard Cantor (Moody's Investors Service) and Peter Conroy (Deutsche Bank) for helpful discussions and Martin Grandes for efficient assistance. The author alone is responsible for the opinions expressed in this paper and, obviously, for any errors.

2 The Basel Committee originally intended to finalise the Accord by year-end 2001, but has meanwhile extended the time schedule. Anyway, as implementation of Basel II is not expected until at least 2004, near-term reaction on capital cost and capital flows discussed in this paper will be limited.

Such comments are, above all, solicited from a supervisory perspective, in particular on whether the proposal will result in capital charges that are better aligned with underlying credit risk. This paper, however, is focused on a different concern. It investigates the potential consequences of Basel II on international bank credit flows, namely the impact (a) on capital cost and (b) the volatility of credit supply across the risk spectrum of borrowers. Alas, the findings suggest that Basel II, if



implemented in its current form, would lead to more divergence, rather than convergence, in the cost and cyclicity of bank credit flows between investment-grade borrowers, mostly at home in industrial countries, and sub-investment-grade borrowers, mostly placed in emerging and developing countries.

The next section presents the major elements of Basel II in its 2001 version for the first pillar of the new Accord, the minimum regulatory capital charge. The focus is on Pillar 1 as the risk weights applied to bank assets and other risk positions are of primary importance for bank credit and, indirectly, bond pricing. Section 3 investigates the potential impact of changing the risk weighting on particular categories of debt by comparing the risk-adjusted return on bank capital under the current Accord against the spread impact under Basel II. Section 4 explores the potential impact of the last proposal on the cyclicity of debt flow supply to emerging and developing countries. Section 5 concludes. While this paper does neither question the need for bank capital

regulation¹) nor provide alternative suggestions for modifying the sophisticated framework elaborated by the Committee, it intends to stress some of its, possibly unintended, negative implications on speculative-grade borrowers from the developing world. The concern is that the new Basel Accord would deepen the regulatory divide in global finance.

2 Features of the new Basel Capital Accord (second consultative paper)

The capital framework proposed in the new Basel Accord consists of three pillars: minimum capital requirements (covering credit risk and operational risk), the supervisory review process, and market discipline. Under the draft proposals, the rigid (total) capital ratio of 8% introduced in the 1988 Basel Accord will be maintained; new is how the risk weights to the capital ratio would be determined. This is the focus of the present paper, as risk weights determine the banks' loan supply and funding costs, because banks have to acquire a corresponding amount of capital relative to their risk-weighted assets.

It is widely agreed that cross-border lending has faced regulatory distortions through the 1988 Basel Accord. Most importantly, short-term bank lending to the emerging markets has been encouraged by a relatively low 20% risk weight, while bank credit to non-OECD banks with a residual maturity of over one year has been discouraged by a 100% risk weight. This has stimulated cross-border interbank lending, which has been described as the "Achilles' heel" of the international financial system. And, OECD-based

¹ For a review of the literature see Santos (2000).

Table 1

The current Basel Capital Accord:	
risk weights by selected category of on-balance-sheet assets	
Risk weight %	Category
0	<ul style="list-style-type: none">– Claims on governments dominated and funded in national currency– Other claims on OECD-based central governments and central banks
20	<ul style="list-style-type: none">– Claims on banks incorporated in the OECD– Claims on banks outside the OECD with a residual maturity of up to one year
100	<ul style="list-style-type: none">– Claims on banks outside the OECD with a residual maturity of over one year– Claims on corporates– Claims on governments outside the OECD

Source: Basel Committee on Banking Supervision (1999).

banks and governments have received a more lenient treatment, even if they constitute sovereign risks equivalent or inferior to non-OECD emerging markets (see table 1).

The Committee is now proposing two main approaches to the calculation of risk weights: a “standardised” and an “internal ratings-based” (IRB) approach. One of the main changes from the Committee’s 1999 Consultative Paper (Committee, 1999) is the clear intention that leading banks will be able to use the IRB approach to set risk weights. The major change compared to the 1988 Basel Accord is that for sovereign exposures, membership in the

OECD will no longer provide the benchmark for risk weights.

Table 2 summarises the proposals for risk weights under the *standardised approach*. The proposed risk weights will substitute credit ratings by “eligible external credit assessment institutions”, not just rating agencies as under the 1999 proposal but also export credit agencies (ECA)¹⁾, for a split between OECD and non-OECD as the main determinant. Risk weights will continue to be determined by the category of the borrower – sovereign, bank or corporate – but within each of those categories, changes have been made. Under the proposal, a sovereign with

Table 2

The new Basel Capital Accord						
risk weight under the standardised approach						
Agency rating	AAA to AA–	A+ to A–	BBB+ to BBB–	BB+ to BB–	B+ to B–	Below B–
Sovereign ECA risk score	1	2	3	4–6	4–6	7
Sovereigns	0	20	50	100	100	150
Banks – option 1 ¹⁾	20	50	100	100	100	150
Banks – option 2 ²⁾	20	50 ³⁾	50 ³⁾	100 ³⁾	100	150
Corporates	20	50	100	100	150	150

Source: Basel Committee on Banking Supervision (2001).

¹⁾ Risk weighting based on risk weighting of sovereign in which the bank is incorporated. The rating shown thus refers to the sovereign rating.

²⁾ Risk weighting based on the rating of the individual bank.

³⁾ Claims on banks with an original maturity of less than three months would receive a weighting one category more favourable than the risk weighting shown above subject to a floor of 20%.

1 See Griffith-Jones and Spratt (2001) for a discussion on the use of export credit agencies in regulating bank capital and the potential impact on developing countries.

a AAA rating (or 1 ECA risk score under the OECD 1999 methodology) would receive a 0% risk weight; lower ratings translate into a jump in risk weights via 20, 50, 100 to 150% for sovereigns weighted below B– (or ECA risk score 7). For the treatment of claims on banks, there are two options. The first option requires that banks be assigned a risk weight that is one category less favourable than that assigned to the sovereign of incorporation. National supervisors in low-rated developing countries may opt for the second option which bases the risk weight on the external assessment of the bank. For claims on corporates, a more risk-sensitive framework is now proposed by moving away from the uniform 100% risk weight for all corporate credits under the 1988 Accord.

The *internal ratings-based (IRB) approach* suggested in the recent Committee proposal represents a fundamental shift in the treatment of regulatory bank capital. It builds on internal risk rating practices of leading banks to estimate the amount of capital they believe necessary to support their credit and operational risks. The IRB approach is now expected to be used by the majority of globally active banks once the new Accord is implemented (Deutsche Bank, 2001), and therefore should be the prime determinant of risk weights (and hence debt capital cost to borrowers).

The IRB approach is based on mapping risk measures derived from probability of default (PD), loss given default (LGD) and, under the “advanced” approach, maturity (M), into risk weight buckets.¹) Banks are required to provide PD. While LGD and maturity are provided by

supervisors in the “foundation” approach, all elements are expected to be provided by the banks in the advanced approach, if they meet an elaborate set of minimum requirements with respect to in-house risk management systems. For each exposure, the risk weight is a function of PD, LGD, and (where applicable) M. Where there is no explicit maturity dimension in the “foundations” approach, the average maturity of exposures will be assumed to be three years. The Committee then suggests the following formula to calculate risk weights (RW):

$$RW = (LGD/50) \times BRW(PD) \\ \text{or } 12.50 \times LGD,$$

whichever is smaller.

BRW (PD) denotes the benchmark risk weight with a given PD and LGD. Where there is an explicit maturity dimension, the Committee suggests to multiply the benchmark risk weight BRW (PD) with a multiplicative scaling factor, linear in M,

$$[1 + b(PD) \times (M - 3)],$$

where the maturity adjustment factor $b(PD)$ also is a function of PD. The suggestion, obviously, implies higher risk weights for longer maturities.

Representative values for benchmark risk weights (BRW) as a function of the default probability for corporate exposures are provided in table 3. The table also adds information on the corresponding rating levels. Note the important fact that the Committee does not suggest a linear, but a strongly exponential rise of risk weightings along the spectrum of higher probability of default. As will be shown in section 4, this

¹ The process is complicated by new recommendations regarding “credit risk mitigation techniques” under which it is possible to obtain partial capital relief by taking into account guarantees, collateral, netting or credit derivatives.

Table 3

**Proposed IRB risk weights for hypothetical corporate exposure
with loss-given-default equal to 50%**

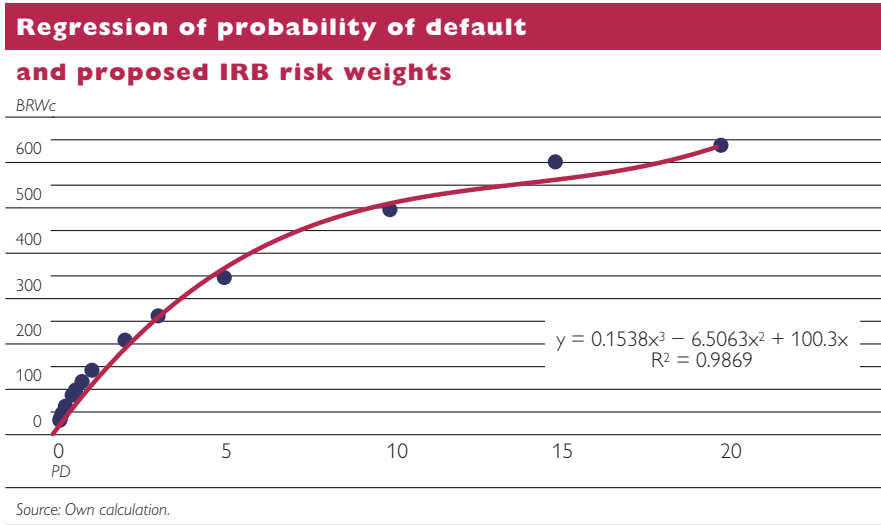
	Agency rating	Probability of default, 3-year maturity, % ¹⁾	Theoretical risk weight ²⁾
Investment grade	AAA	0	0
	AA+	0	0
	AA	0.07	7
	AA-	0.21	20.8
	A+	0.37	36.2
	A	0.16	15.9
	A-	0.28	27.6
	BBB+	0.59	56.9
	BBB	0.41	40.0
	BBB-	1.28	118.1
Speculative grade	BB+	3.77	293.9
	BB	5.46	378.7
	BB-	11.76	529.9
	B+	15.03	559.9
	B	19.85	630.3
	B-	27.79	1,063.5
	CCC and below	31.38	1,493.1

Source: Basel Committee on Banking Supervision (2001); Moody's Investors Service (1999).
¹⁾ Average historical probability of default for the period from 1980 to 1998 of corporate borrowers, cumulative for three-year maturities.
²⁾ Based on the regression displayed in figure 1, which in turn is derived from calibrating IRB risk weights provided by the Committee in the technical support document cited above.

suggestion would have fatal consequences on the terms at which speculative-grade borrowers could incur bank debt in the future under the suggested IRB approach. Based on the history of corporate default rates per rating notch provided by Moody's Inverstors Service (1999) and calibrating the data provided by the Committee as given in table 3, the regression estimated

below in figure 1 obtains. This function can then be used to interpolate for each rating notch the probability of default and the corresponding risk weight. Although the features presented here do not do justice to the complexity and sophistication of the second consultative paper issued by the Committee, they provide sufficient detail for the subsequent calculations

Figure 1



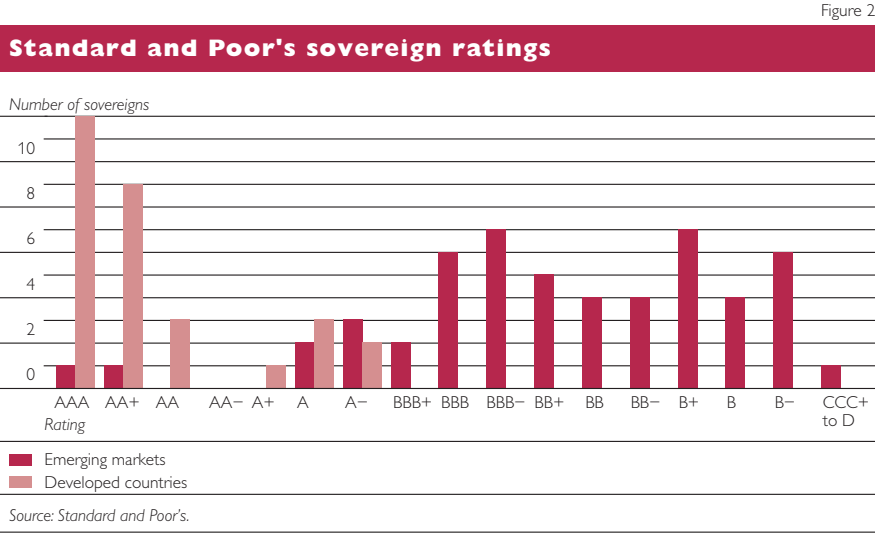
on the implications for credit spreads and capital cost in industrial and developing countries.

3 Implications for credit spreads

It has been shown for sovereign exposures (Reisen, 2000) that changes in risk weights have a direct impact on credit spreads. Under the current 1988 Basel Accord, lower funding cost that arose for private bank lending to new OECD members as a result of lower risk weights did indeed translate into lower interest cost on new loan commitments.¹⁾ The benefit of lower interest cost (after correcting for world interest rate developments) materialised despite higher loan demand by new OECD countries. Credit cost might therefore also strongly react for categories of debt in which the risk weighting is moved significantly under the new Basel II proposals.

Extending calculations in Deutsche Bank (2001), the calibrations below compare the risk-adjusted return on capital using current risk weightings and credit spreads under Basel I with risk weightings and spreads that could result from the standardised and IRB approach under Basel II. It is assumed that banks fund themselves at LIBOR, and the spread in excess of LIBOR is expressed as a percentage of capital required, which in turn translates the minimum Basel capital ratio requirement (total capital/weighted risks) of 8% into a capital amount. This allows to determine the amount of breakeven spread change needed to maintain the banks' risk-adjusted return on capital achieved under the 1988 Basel Accord.

Figure 2 shows that ratings (and hence underlying default probabilities) differ significantly between borrowers located in OECD coun-



1 In particular, upgrades to investment grade open up a much wider investor base to emerging and developing countries. As they become eligible for inclusion in benchmark investment-grade indices, portfolio managers would have to consciously justify a country's exclusion rather than start from the presumption that the country will not be included in investment-grade portfolios. Such portfolios are particularly held by long-term contractual institutions, such as pension funds and insurance companies. An upgrade to investment grade will therefore result in higher and more stable demand for a developing-country bond, as the demand for country's bonds will not be limited to unconstrained investors, such as high-yield managers and hedge funds, that are able to trade opportunistically in and out of speculative-grade bonds.

tries and those in non-OECD countries. The median sovereign rating for OECD countries in early 2001 was AA, while the median sovereign rating in non-OECD countries was BB (although with a much wider standard deviation among non-OECD borrowers than among OECD borrowers). These differences would translate into a dramatic divergence in risk weights and debt cost between the two country groups, if the internal ratings-based approach (IRB) suggested by the Committee was applied. Differences between categories of borrowers – sovereigns, banks (short-term exposures), corporates – are not systematically significant within these country groups, according to inquiries with rating agency economists and recent research (Durbin and Ng, 1999); they will therefore be ignored in the calculations given below. Table 4 provides some illus-

trations of the potential impact of changing risk weights, one for double-A rated OECD-based borrowers, and three for non-OECD borrowers with triple-B, double-B and single-B ratings. Loss given default rates (LGD) are generally assumed to be 50%, in line with findings in Moody’s Investors Service (1999), and the remaining maturity of underlying assets at three years. The results displayed in table 4 indicate that the potential impact of changing risk weights in Basel II can be dramatic, although such numbers cannot be exact science. Double-A rated sovereigns (such as Italy) would only face a slight uptick in credit spreads under the IRB approach as the implied default probability for double-A rated borrowers is 0.07% (on three-year maturities), which translates into theoretical risk weight of 6.99%. This implies that the lending bank

Table 4

Potential impact of change in risk weightings implied by Basel II																
Basel regulation	Sovereigns				Break-even spread change, bp ³⁾	Banks, option 2				Break-even spread change, bp ³⁾	Corporates					
	As-sumed LIBOR spread	Risk weight ¹⁾	Capital required per USD100	Risk-adjusted return, % ²⁾		As-sumed LIBOR spread	Risk weight ¹⁾	Capital required per USD100	Risk-adjusted return, % ²⁾		As-sumed LIBOR spread	Risk weight ¹⁾	Capital required per USD100	Risk-adjusted return, % ²⁾	Break-even spread change, bp ³⁾	
Double-A (OECD-based)																
Current	5	0	0.0	..	+ 3	10	20	1.6	6.3	- 6	20	100	8.0	2.5	- 16	
Standardised		0	0.0	..			20	1.6	6.3			20	1.6	12.5		-
IRB approach		7	0.6	8.3			7	0.6	16.7			7	0.6	33.3		- 18
Triple-B (non-OECD)																
Current	100	100	8.0	12.5	- 50	100	100	8.0	12.5	- 50	100	100	8.0	12.5	- 60	
Standardised		50	4.0	25.0			50	4.0	25.0			100	8.0	12.5		-
IRB approach		40	3.2	31.3		- 60	40	3.2	31.3		- 60	40	3.2	31.3		- 60
Double-B (non-OECD)																
Current	400	100	8.0	50.0	- 1,115	400	100	8.0	50.0	+1,115	400	100	8.0	50.0	+1,115	
Standardised		100	8.0	50.0			100	8.0	50.0			100	8.0	50.0		-
IRB approach		379	30.3	13.2			379	30.3	13.2			379	30.3	13.2		
Single-B (non-OECD)																
Current	700	100	8.0	87.5	+3,709	700	100	8.0	87.5	+3,709	700	100	8.0	87.5	+ 350	
Standardised		100	8.0	87.5			100	8.0	87.5			150	12.0	58.3		+ 350
IRB approach		630	50.4	13.9		+3,709	630	50.4	13.9		+3,709	630	50.4	13.9		+3,709

Source: Own calculation as described in the text based on the procedure developed in Deutsche Bank (2001).

¹⁾ For the IRB approach obtained from the cubic regression estimate given in figure 1.

²⁾ Assumes LIBOR flat funding. Risk-adjusted return on capital is 100/regulatory capital required per USD 100 times spread over LIBOR; quoted as return in excess over LIBOR.

³⁾ Indicates the amount of spread movement needed (in basis points) to produce the risk-adjusted return achieved under the current Basel I environment.

Break-even spread change is difference in risk-adjusted return between "current" and "standardised", resp. "IRB" approach times capital required per USD 100 in "standardised", resp. "IRB" approach.

has to acquire USD 0.56 per USD 100 under the IRB approach, compared to the 0 risk weight under Basel I and under the standardised approach suggested now for Basel II. The argument is reversed for double-A rated corporates, where the risk weighting would drop from 100% under Basel I to 20% in both scenarios of Basel II. This results in an increase of the risk-adjusted return on capital for the lending bank. Assuming a spread of 20 basis points over LIBOR for double-A rated corporates, the risk-adjusted return rises from 2.5% ($100/8 \times 0.2$) to 12.5% ($100/1.6 \times 0.2$) under the standardised approach. This would produce a drop in the breakeven spread of 16 basis points ($[12.5 - 2.5] \times 1.6$). As for lending to sovereigns and banks, lending to double-A rated corporates would require a risk weight of only 7%. This translates into a capital requirement of USD 0.56 per USD 100 lent (0.08×0.07), and hence a risk-adjusted return of 35.7% ($100/0.56 \times 0.2$). The corresponding breakeven spread would be $([2.5 - 35.7] \times 0.56) = 18.6$ basis points.

As displayed in figure 2, 22 out of 53 rated non-OECD sovereigns currently enjoy investment-grade ratings (BBB– and higher). The most assigned rating category for this group of countries is BBB. Table 4 shows that the suggestions of the new Basel Accord, regardless of whether under the standardised or the IRB approach, would benefit triple-B rated non-OECD borrowers through sizeable reductions in risk weights, regulatory capital requirements, and consequently debt costs as breakeven spreads drop by 50 to 60 basis points.

In strong contrast to the favourable impact for investment-grade borrowers, the adoption of the IRB approach suggested by the Commit-

tee would effectively close speculative-grade borrowers from international bank lending. This would hit the majority of developing countries as 31 out of the 53 rated non-OECD sovereigns have speculative-grade ratings. While the standardised approach would leave risk weights, regulatory capital, risk-adjusted returns and hence breakeven spreads unchanged (except for corporate borrowers rated B and below and other borrowers rated C and below), the suggested IRB approach seems to imply extraordinarily heavy risk weights. Ignoring any distinction between categories of borrowers, bank lending to double-B rated borrowers would require a risk weight of 379%, translating to regulatory capital needs of USD 30.3 per every USD 100 lent. Assuming that double-B borrowers are quoted 400 basis points in excess of the LIBOR rate, this would diminish the risk-adjusted return for bank creditor from 50.0% in both the current and the standardised approach to 13.2% under the suggested IRB approach. To keep the creditor bank's profit level even, the drop in the risk-adjusted rate of return on capital would translate into a rise of the breakeven spread in the order of 1,115 basis points. For single-B rated borrowers, table 4 indicates an even more dramatic rise in the breakeven spread as a result of prohibitive risk weights.

In fact, market spreads are unlikely to react as dramatically as suggested by table 4, for several reasons. The data above refer to net exposures; the strong yield differences indicated in the table might lead to significant arbitrage trades. Importantly, nonbank investors such as asset management firms, insurance companies and pension funds indifferent to risk weightings would probably arbitrage based on bank regulatory requirements. Moreover,

the second Consultative Paper suggests regulatory capital relief for credit risk mitigation, for example through credit derivatives, collateral and guarantees. Finally, it is not clear to what extent banks base their lending decisions on calculations of risk-adjusted returns (as provided in table 4), not least because the capital requirements relate to the banking book, but not to the banks' trading books to which exposures might be placed.

In any case, it seems clear that credit spreads will more closely reflect credit ratings as a proxy of default probabilities. While this is exactly what supervisors are aiming at, the calculations provided here indicate that the chasm between investment-grade borrowers, mostly based in OECD and in some of the more successful emerging markets, and speculative-grade borrowers, mostly from the developing world, will deepen. This outcome would clearly run against endeavours of the global development community to broaden the range of developing countries that benefit from private capital inflows. Not only does Basel II risk to raise capital cost for speculative-grade developing countries, but it may also increase the volatility of bank credit supply to this group of countries.

4 Systemic implications

The concern that Basel II will raise the volatility of private capital flows to speculative-grade developing countries, and hence their vulnerability to currency crises, is based on four aspects of the new Accord: (a) the rigidity of the 8% minimum capital ratio; (b) the lateness and the cyclical determination of agency ratings, which define regulatory

capital needs under the "standardised" approach; (c) the cyclical nature of the probability of default and of yield spreads, which determine regulatory capital needs and debt costs under the "internal ratings-based" approach; and (d) the ongoing incentives for short-term rather than long-term interbank lending embedded in the Basel Accord.

First, theory suggests that linking bank lending to regulatory capital through a rigid minimum capital ratio acts to amplify macroeconomic fluctuations in a non-Modigliani-Miller world, where investment demand depends on the ability of firms to retain earnings or to obtain bank loans (Blum and Hellwig, 1995). If negative shocks to aggregate demand reduce the ability of debtors to service their debts to banks, such reduction in debt service lowers bank equity, which in turn reduces bank lending and investment because of capital adequacy requirements. With a binding bank capital requirement c , an additional USD 1 of bank profits induces $1/USD$ additional units of bank lending. Linking bank lending to bank equity thus acts as an automatic amplifier for macroeconomic fluctuations: Banks lend more when times are good, and less when times are bad; rigid, or even pro-cyclical capital requirements reinforce that habit.

Second, under the "standardised" approach, risk weights will be determined above all by agency ratings. However, empirical evidence suggests that sovereign ratings lag rather than lead the markets.¹⁾ It seems that



¹ See Reisen and von Maltzan (1999). Reinhart (2001) has recently shown that the lagged nature of ratings, in particular in the context of banking-cum-currency crises, has not changed since the Asian 1997/98 crisis.

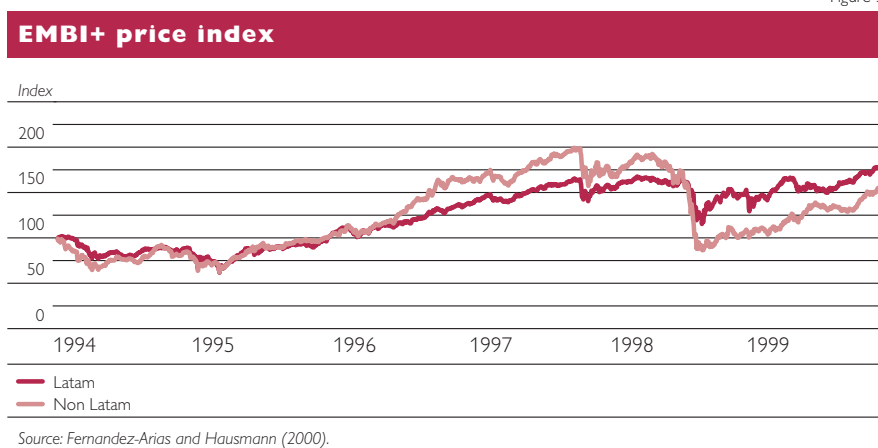
there is little scope to improve on that performance, as the nature of sovereign risk and the public availability of sovereign default determinants make it difficult for rating agencies to acquire an information lead over financial markets. Moreover, current income growth has been repeatedly identified to influence ratings positively (see, among others, Cantor and Packer, 1996; Kaminsky and Schmukler, 2001). This means that during boom times ratings will improve, while they decline during bust periods.

Thus, assigning fixed minimum capital to bank assets whose risk weights are in turn determined by market-lagging ratings will reinforce the tendency of the capital ratio to work in a pro-cyclical way. The IMF (1999) has also found that ratings on developing-country borrowers are characterised at times by a low degree of durability, indicating a low prediction value. The Basel II proposals reinforce pro-cyclical tendencies further as a strong discontinuity between risk weights on differently rated assets will make banks' loan portfolio more liquidity-hungry, hence raising the vulnerability of the financial system to liquidity risk. To the extent that a high share of banks' loan portfolio is invested in triple-B rated sovereign and corporates (with

a 50% risk weight, recall table 2), downgrades on such assets (implying a 100% risk weight according to the "standardised" approach) will force banks to reserve more liquidity or to cut back lending to the downgraded borrowers. The financial system would become more vulnerable to a liquidity crisis.

Third, under the "internal ratings-based" approach, risk weights assigned to the different categories of borrowers will be governed by underlying default probabilities. However, Moody's Investors Service (1999) has shown that default rate volatility increases with lower rating notches, though not as strongly as average default risk. Moreover, another recent investigation by Moody's Investors Service (2001) shows that macroeconomic shocks, not idiosyncratic risk, explain most of the volatility in default rates. During the period from 1970 to 1999, one-year default rates for speculative-grade issuers in Moody's Global Database oscillated between roughly 1% in tranquil times and 10% in crisis years. Under the IRB approach suggested in the new Basel Accord, these fluctuations in default probability would translate into corresponding pro-cyclical shifts in risk weights. The proposed IRB risk weights for corporate exposure with Loss-

Figure 3



given-default equal to 50% rise from roughly 100% for a 1% probability of default to 500% for a 10% probability of default.

Figure 3 shows a remarkable correlation for the evolution of emerging-market bond prices during the last decade. This phenomenon, termed financial contagion, is especially worrisome at the time of large negative shocks triggered by exogenous events, when average spreads on emerging-market bonds can easily rise from, say, 250 to 750 basis points. The corresponding jump in risk spreads would be exacerbated by the new Basel Accord as banks are discouraged by a corresponding, pro-cyclical, rise in risk weights to arbitrage such pricing gaps. Following the calculation procedure of table 4, a corresponding rise in spreads from 250 to 750 basis points and a rise in underlying risk weights from 100% to 500% of the 8%

bank capital ratio would produce a jump in the bank's required breakeven spread of 500 basis points.

Fourth, the new Basel Accord still discourages long-term interbank lending to emerging and developing countries. For speculative-grade developing countries, the regulatory incentives for short-term interbank lending thus tilt the structure of their capital imports towards short-term debt. Short-term foreign debt, in relation to official foreign exchange reserves, has been identified as the single most important precursor of financial crises triggered by capital-flow reversals (Rodrik and Velasco, 1999).

Table 5 displays the potential impact of risk weights for short-term (below three months) bank-to-bank lending, in addition to the calculations shown already in table 4 with regard to long-term (three-year maturity) lending. Let us first have

Table 5

Regulatory incentives for short-term interbank lending										
Basel regulation	Long-term, option 2					Short-term, option 2				
	Assumed LIBOR spread	Risk weight ¹⁾	Capital required per USD 100	Risk-adjusted Return, % ²⁾	Breakeven spread change, bp ³⁾	Assumed LIBOR spread	Risk weight ¹⁾	Capital required per USD 100	Risk-adjusted Return, % ²⁾	Breakeven spread change, bp ³⁾
Double-A (OECD-based)										
Current	10	20	1.6	6.3		10	20	1.6	6.3	
Standardised		20	1.6	6.3	—		20	1.6	6.3	—
IRB approach		7	0.6	16.7	— 6		0	0.0
Triple-B (non-OECD)										
Current	100	100	8.0	12.5		100	20	1.6	62.5	
Standardised		50	4.0	25.0	— 50		20	1.6	62.5	—
IRB approach		40	3.2	31.3	— 60		10	0.8	125.0	— 50
Double-B (non-OECD)										
Current	400	100	8.0	50.0		400	20	1.6	250.0	
Standardised		100	8.0	50.0	—		50	4.0	100.0	+
IRB approach		379	30.3	13.2	+1,115		60	4.8	83.3	+ 800
Single-B (non-OECD)										
Current	700	100	8.0	87.5		700	20	1.6	437.5	
Standardised		100	8.0	87.5			100	8.0	87.5	+ 2,800
IRB approach		630	50.4	13.9	+3,709		400	32.0	21.9	+13,300

Source: Own calculation as described in the text based on the procedure developed in Deutsche Bank (2001).

¹⁾ For the IRB approach, long-term (three years) risk weights are obtained from the cubic regression estimate given in figure 1. The underlying default rates for short-term exposures were obtained from Moody's; they are 0% for double-A, 0.1% for triple-B, 0.6% for double-B, and 6.8% for single-B borrowers (Moody's, 2001; exhibit 16). For the standardised approach, claims on banks rated between A+ and BB- with an original maturity of less than three months would receive a rating one category more favourable than the risk weight on longer maturities.

²⁾ Assumes LIBOR flat funding. Risk-adjusted return on capital is 100/regulatory capital required per USD 100 times spread over LIBOR; quoted as return in excess over LIBOR.

³⁾ Indicates the amount of spread movement needed (in basis points) to produce the risk-adjusted return achieved under the current Basel I environment. Breakeven spread change is difference in risk adjusted return between "current" and "standardised", resp. IRB approach times capital required per USD 100 in "standardised", resp. IRB approach.

a look how the current (1988) Basel Accord has discouraged long-term bank lending for banks from developing countries, as opposed to the neutral incentives provided for lending to OECD-based banks. The risk-adjusted return for lending to triple-B rated non-OECD banks is calculated as 12.5% for long, but 62.5% for short maturities; the respective numbers are 50% versus 250% for double-B rated banks, and 87.5% versus 437% for single-B rated banks.



The standardised approach suggested in Basel II attenuates the bias towards short-term lending to triple-B and double-B rated borrowers, but does not entirely delete them. By contrast, bank-to-bank lending to single-B rated borrowers would not any longer be distorted by higher risk-adjusted returns on short-term lending under the “standardised” approach.

Strong incentives, by contrast, continue to be provided under the “internal ratings-based” approach for short-term bank lending, in particular to triple-B rated banks. The required breakeven spread change is minus 50 basis points on short-term lending under the IRB approach compared to the current Basel requirements, as the corresponding risk weight drops to 10%, assuming a 0.1% probability of default on short-term exposure according to the evidence provided in Moody’s Investors Service (2001). Therefore, while for exposures with a residual maturity of three years the corresponding probability of default (0.41%) translates into a risk weight of 40% and a risk-adjusted return of 31.3% (for an assumed spread over LIBOR of

100 basis points), the equivalent risk-adjusted return is much higher, 125%, for short-term exposures to triple-B rated banks.

While higher risk-adjusted returns for short-term exposures than for long-term exposures can also be calculated with respect to double-B and single-B banks (see table 4), this is likely to be less relevant for the structure of future bank lending. As discussed before (see table 4), the required breakeven spread change is extremely high for speculative-grade borrowers, if the IRB approach is compared to the current Basel regulations; this holds essentially for short-term lending as well, except perhaps for lending to double-B rated banks.

5 Conclusions

The Basel Committee on Banking Supervision has recently released a second Consultative Paper proposing a new Basel Capital Accord. The Consultative Paper is highly complex, sophisticated and ambitious, aiming at better risk sensitivity of regulatory capital charges, improved incentive compatibility to enhance risk management and safer banks. However, it may lead, if implemented as is, to deepen the divide between investment-grade and speculative-grade borrowers in their ability to tap world financial markets at sustainable debt cost and in their exposure to volatile capital supply.

This paper has argued that speculative-grade borrowers, the bulk of emerging and developing countries, will suffer from a dramatic rise in debt costs and heightened cyclical-ity of global bank credit as a result of Basel II if the IRB approach suggested now prevails. Calculations provided here underpin the concern that the rise in risk weights required by the IRB approach, itself being a fundamental shift in the treatment of

regulatory bank capital, would effectively close speculative-grade from international bank lending. By contrast, the “standardised” approach, which links risk weights to ratings by eligible external credit assessment institutions, would leave banks’ regulatory capital charges, risk-adjusted returns and hence required spreads largely unchanged (except for the very lowest rating notches) to most developing-country borrowers.

The concern that Basel II will raise the volatility of private capital flows to speculative-grade developing countries, and hence their vulnerability to currency crises, has also been addressed in this paper. It is based on four aspects of the new Accord: the rigidity of the 8% minimum capital ratio; the lateness and the cyclical determination of agency ratings, which define regulatory capital needs under the “standardised” approach; the cyclical nature of the probability of default and of yield spreads, which determine regulatory capital needs and debt costs under the IRB approach; and the ongoing incentives for short-term rather than long-term interbank lending embedded in the Basel Accord.

Supervisors are mainly concerned with the safety of the financial institutions under their responsibility; development and systemic concerns do not seem to get the attention that the important regulatory impact on private capital flows would deserve. Akin to the much-discussed “digital” divide in the area of education, innovation and growth, Basel II risks to deepen the “regulatory” divide between investment-grade and speculative-grade borrowers in the area of global finance. The 21st century is expected to see a growing share of global output move from the rapidly ageing OECD economies to the younger develop-

ing world, where all the world’s labour force growth will take place, promising higher capital returns there. This promise is reinforced by the observation that poor countries have a higher potential to grow than rich countries. These expectations, though, will not materialise without substantial capital flows from capital-rich and ageing countries to labour-rich economies. Basel II, as it stands, will not be of help to widen the range of countries likely to benefit from private capital inflows.

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ESA JOKIVUOLLE



Comments on
Helmut Reisen,
“Will Basel II
Contribute to Convergence
in International Capital Flows?”

Introduction

It is a great pleasure to have the opportunity to comment on Helmut Reisen's paper. It is an interesting and highly topical study as the second consultation round for Basel as well as EU proposals for the new capital adequacy framework ends – in fact – today. I personally find the paper particularly interesting because I have long been concerned with the question of the relationship between the regulatory capital requirements of banks and the pricing of debt, both as a former risk manager and as a researcher.

As an ever worried central banker I feel that I can only agree with the paper's main conclusions

and predictions. Yes, after Basel II, a much greater division in the cost of debt between low-risk and high-risk borrowers, both internationally and domestically, seems inevitable. And yes, this could severely tighten the terms of international credit for many countries. The volatility of the flow of funds to high-risk sovereign borrowers would also seem to increase. We should therefore be concerned about these prospects and think of ways to alleviate the problems brought by the new Capital Accord.

Nonetheless, there seem to be some puzzles in the relationship between the regulatory capital of banks and the pricing of debt. I often ask myself this: It is all fine in practice, but how does it work in theory? In the following I will try to say something on this problem.

Minimum Capital Requirements, Economic Capital, and the Pricing of Debt

Reisen presents calculations indicating that particularly the use of the internal ratings-based approach (IRBA) of Basel II could dramatically increase the cost of debt to the lowest-grade borrowers. This is due to the fact that the approach would strongly increase the capital requirements of banks for such exposures. On the other hand, the cost of debt to the highest quality borrowers is likely to diminish. Reisen makes his point in the context of international finance, but the same effects should readily apply in any lending context.

What should, however, be more important for the pricing of debt: the regulatory capital requirement or the so-called economic capital of banks? Probably both matter, but if I had to pick only one, I would say the economic capital. Economic capital is reserved against banks' true portfolio risk. Within a bank, it is

further allocated to each credit exposure according to their contribution to the portfolio's overall risk. These risk contributions would then be used to assign the minimum spread requirement to each exposure, that is, to determine the minimum acceptable interest rate on a loan. Economic capital, rather than regulatory capital, would hence be the primary capital constraint a bank management should consider in lending decisions in order to maximize shareholder value.

One of the outspoken goals of Basel II, particularly that of IRBA, is to bring regulatory capital closer to the economic capital. If this is the case, and if banks were already pricing their loans according to the economic capital allocations, why should there be much change in pricing after Basel II? For instance, expecting a dramatic broadening of the credit spread on speculative-grade debt after the new Capital Accord would seem to imply that these debts have earlier been seriously underpriced.

In practice it seems that the minimum capital requirements of banks, nonetheless, affect the pricing of debt more strongly than the basic theory above would suggest. A snapshot comparison from October 1999 of the corporate bond market spreads and the corresponding theoretically acceptable minimum spreads, called "rock-bottom spreads," across rating classes indicates that the actual credit spread curve has been much flatter than what would seem to be justified by economic risk considerations. While high-grade bonds have earned sizable liquidity spreads, the lowest-grade bonds have not even earned the rock-bottom spread. The reason for this might be distorted incentive effects of the current minimum capital requirements, or simply imper-

fect pricing practices. However, considerable parameter uncertainty in pricing might affect the credibility of these results.

My conclusion so far is that, at least in theory, the economic capital calculations of banks should already be driving the pricing of debt now. Therefore, as particularly the IRBA is merely to take regulatory capital requirements closer to economic capital, I do not necessarily expect dramatic changes in pricing. Nonetheless, available empirical evidence suggests that reality may not follow the basic theory in that there seem to have been remarkable deviations from economic-capital-based valuations in the market. Why this is so remains at least partly puzzling to me.

Calibration of Basel II Risk Weights

The above argumentation has mainly focused on the relative pricing of debt across rating classes. Another important issue for banks and their debtors is the level of debt pricing, which could be affected by the overall stringency of the capital requirements. Although not much discussed so far, it is known that the current level of the internal ratings-based risk weights have been derived by calibrating them to 1.5 times the economic capital of a representative credit portfolio used in the calibration. In other words, the IRBA capital requirements are currently likely to be well above the corresponding economic capital levels.

In addition to this, another argument may raise the capital held by banks even further. A recent study argues that banks hold capital in excess of the minimum requirement in order to fulfil the minimum requirement also in possible economic downturns within their capital planning horizon (see Jokivuolle and

Peura, 2001). The need for such capital cushions may even be increased by the increasing volatility of the new capital requirements, resulting from the rating sensitivity of the risk weights. These cushions together with the new minimum requirements that already appear to be well above the economic capital levels should be given due consideration when Basel is carrying out the final calibration of the risk weights. This would be important in order to achieve the targeted overall capital level in the banking sector, and not to impose unnecessary pressures on the pricing of debt.

Precautionary cushions of banks may also play another role, and now I briefly come to Reisen's second point of increasing cyclicalities of emerging market finance. If there is anything like "relationship lending" in the case of emerging markets, then banks that lend to these countries might have incentives to reserve in advance capital cushions well above their minimum capital requirements in order to be able to continue lending through bad times. This might work to alleviate the problem of cyclicalities, even though the original build-up of such cushions in response to the new Capital Accord could depress lending. Anyhow, it would be all the more important to calibrate the final risk weights in such a way that the cushions of banks are not forced to detrimentally high levels.


Conclusions

To conclude I would say that, considering the available empirical evidence, we should be concerned about the effects of Basel II on the availability and pricing of especially speculative-grade debt, as Reisen



suggests. In my comments I have pointed out, however, that we may still be faced with an incomplete understanding of how the interplay of the regulatory capital requirements and economic capital calculations of banks affects debt markets. I also emphasized factors that Basel might have to consider carefully when implementing the final calibration of the new risk weights.

One consequence of Basel II could be that banks using the standardized approach, which imposes less stringent capital requirements on speculative-grade debt, would start specializing on speculative-

grade lending. Banks adopting the IRBA would in turn specialize on the better end of the rating scale. This might be a rather absurd outcome as less sophisticated banks are particularly likely to hold to the standardized approach. That is, banks with less sophisticated risk management methods might end up lending to the riskiest customers. 

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Luncheon Speech:

The Skill Profile

of Central Bankers

and Supervisors

I Introduction

In an earlier paper (Goodhart and Schoenmaker, 1995), we observed a trend towards separation between monetary policy and supervisory agencies. A major reason for this is that if taxpayers were seen to be potentially liable during a crisis, there would be a demand for more direct political control over supervision. Subsequently, some central banks have lost their supervisory powers, notably the Bank of England. A key question in the ongoing debate on separation (e.g. Peek, Rosengren and Tootell, 1999) is which institutional structure will deliver better results. It is difficult to answer this question by inspecting the historical record (i.e. evidence of outputs). This is partly because financial crises, though regrettably more frequent in recent decades, remain rare events and are often trig-

gered by factors quite independent of the organisational structure of supervision. In this paper, we inspect what staffing and expertise institutions employ (i.e. evidence of inputs) in an attempt to shed more light on the question of which structure may do better.

The study involves a quantitative evaluation of the academic and professional skills of the supervisory staff at central banks and supervisory agencies. In particular, we seek to explore what kind of perspective



supervisors in different institutional settings may adopt: a macro-oriented perspective or a more micro-approach? The answer to this question is relevant, as there is evidence that many financial crises have been

macro-induced (e.g. Hellwig, 1995; Lindgren, Garcia and Saal, 1996; Kaminsky and Reinhart, 1999). Examples are the US Savings and Loans debacle (interest rate shock), the Scandinavian banking crisis (recession) and the UK secondary banking crisis (property prices). These macro-related causes are often intertwined with micro-related factors. The banking problems in Scandinavia, for example, may have been triggered by a recession in the late 1980s/early 1990s, but liberalisation of the financial sector in the mid-1980s, in the absence of proper risk measurement and control mechanisms at banks, as well as lack of risk awareness at supervisory agencies, may have contributed to an unchecked boom in lending.

This cross-country survey of the skill profile of supervisory staff should help to provide an insight into two additional issues. First, are there economies of scale in financial supervision? One would expect that coun-

tries with larger or more financial institutions would not employ proportionally more supervisors than countries with smaller financial systems. Second, is there any impact of the design of the financial system and the stage of financial development (e.g. Levine and Zervos, 1998; Rajan and Zingales, 1998) on the number and type of financial supervisors employed? Would a country with a well-developed stock market employ more, or a different type of, supervisors than a country with a financial system that is mainly bank-intermediated?

2 Empirical study

This new area of research is based on a unique data set on the numbers and nature and level of expertise of the staff employed by supervisory agencies. It is a first effort to collect detailed information on the composition of the staff at supervisory agencies. Usable data were obtained from 91 agencies covering some 57 separate countries. This includes central banks, bank, securities and insurance supervisors, irrespective of whether the countries have opted for a unified "mega-supervisor" structure or, alternatively, a number of joint supervisors. The study involves a quantitative evaluation of the academic and professional skills of those employed by these bodies, gathered from the responses to a questionnaire. The data refer to the supervisory departments of these bodies. Staff employed in the monetary wing of central banks is thus excluded. Data on staff in the supervisory and financial stability sections of central banks are difficult to separate. Moreover, these sections tend to use each other in practice. Supervisors would, for example, make use of a macro-economic outlook for the financial system prepared by the financial stability people.

The first part of the questionnaire was intended to discover the supervisory tasks for which each institution has been responsible (i.e. whether systemic stability, prudential supervision and/or conduct of business) and the areas of the financial sector each institution has to supervise (i.e. whether it regulates banks, securities firms, insurance houses, markets, etc.). The latter information determines whether the agency is a “mega-supervisor” (i.e. a sole supervisor), a joint supervisor, or has no supervisory mission at all. The second part enquired more specifically about the academic and professional qualifications of the staff employed by the regulatory bodies. The agencies were asked to quantify the number of staff specialising in the different professions (lawyers, accountants, economists, financial experts, others), and how many have had some commercial experience (i.e. how many had worked in the private sector beforehand). The final question, concerning staff qualifications, tried to establish the number of experts working at the agency. Experts are defined as staff with the equivalent of a university Master’s degree or above.

In order to obtain a picture of the economic position and stage of financial development of those countries whose agencies responded, a set of 12 variables was obtained from secondary sources. Inter alia, these

data include variables such as GNP, M2 as a measure of broad money, stock exchange capitalisation as well as the number of regulated banks of each country.

The basic data series are turned into a set of ratios, where the numerator is derived from the survey, and the denominator is M2 or another survey variable. The use of deflators such as M2 is necessary to make comparisons between the institutions more consistent, as it is evident that supervisory agencies belonging to smaller countries are likely to employ fewer qualified staff than larger countries in absolute terms. This provides us with a set of eight ratios, as presented in table 1. The first three ratios relate to the number of regulators in supervisory agencies and the number of experts among them. The fourth ratio presents the number of regulators with commercial experience. The final four ratios shed light on the composition of experts. Most supervisory agencies have provided usable data on lawyers, economists and financial experts. However, too few agencies actually specify the number of accountants working for them.

We next divide our sample into several categories, i.e. whether the respondent was a central bank or not, in the OECD or not, and what type of supervision it was responsible for, i.e. systemic, prudential and/or conduct of business. What we want

Table 1

Set of ratios for supervisory skills	
Ratio	Variable
1. Total Number of Regulators/M2	Regs/M2
2. Total Professional Experts/M2	Experts/M2
3. Total Professional Experts/Total Number of Regulators	Experts/Regs
4. Commercial Experience/Total Number of Regulators	Commercial/Regs
5. Lawyers/Total Number of Regulators	L/Regs
6. Lawyers/Total Professional Experts	L/Experts
7. (Economists + Financial Experts)/Total Number of Regulators	(E + F)/Regs
8. (Economists + Financial Experts)/Total Professional Experts	(E + F)/Experts

Source: Goodhart, Schoenmaker and Dasgupta (2001).

to discover in this exercise is what are the main factors, besides pure size – which we hope is controlled by the deflator –, which influence the input of professional skills into the supervisory process. One obvious factor is the institutional status; we seek to quantify this in a variety of ways. The variables listed below are used as dummies, reflecting the institutional functions of the regulatory bodies. The agencies analysed are classified according to whether:

- they are a central bank or not (Central Bank);
- they are a sole supervisor (Sole), joint supervisor (Joint), or not a supervisor at all (Not Supervisor);
- they are responsible for systemic stability (Systemic), prudential supervision (Prudential), conduct of business (Conduct) or a combination of these.

To give an overview of the data, table 2 presents the average ratio

for each category. Data are provided for four ratios: total number of regulators deflated by M2, regulators with commercial experience to total number of regulators, lawyers to total experts and economists and finance experts to total experts. The number of regulators deflated by M2 seem to be higher in non-OECD countries. To pick up any structural differences, a dummy for OECD is incorporated in the regression analysis (see table 2). The average ratio of regulators with commercial experience is higher at multiple agencies, suggesting that these specialist agencies mainly hire employees with private sector experience. The average ratio of lawyers to experts is lower in central banks than in separate supervisory agencies, while the number of economists and finance experts is higher.

The first stage of the empirical test was to run regressions with the eight ratios as dependent variables and a set of institutional variables as

Table 2

Average ratios for various categories of agencies				
Category	Average Ratio ¹⁾			
	Regs/M2	Commercial/ Regs	L/Experts	(E + F)/ Experts
1. OECD CBs, Sole Supervisor	0.0014 (n = 9)	0.2635 (n = 5)	0.1775 (n = 8)	0.6291 (n = 8)
2. Non-OECD CBs, Sole Supervisors	0.0314 (n = 25)	0.3935 (n = 22)	0.1085 (n = 12)	0.5751 (n = 26)
3. OECD CBs, Joint Supervisors	0.0017 (n = 7)	0.3620 (n = 4)	0.0878 (n = 5)	0.7044 (n = 6)
4. Non-OECD CBs, Joint Supervisors	– (n = 0)	– (n = 0)	0.0350 (n = 1)	0.5035 (n = 1)
5. OECD CBs, No Supervisory Role	0.0039 (n = 10)	0.4174 (n = 6)	0.1108 (n = 4)	0.7723 (n = 7)
6. Non-OECD CBs, No Supervisory Role	0.0100 (n = 1)	0.3250 (n = 1)	0.2174 (n = 1)	0.3043 (n = 1)
7. OECD Non-CBs, Mega-Supervisors	0.0074 (n = 6)	0.1675 (n = 2)	0.4298 (n = 4)	0.2514 (n = 3)
8. Non-OECD Non-CBs, Mega-Supervisors	– (n = 0)	– (n = 0)	– (n = 0)	– (n = 0)
9. OECD Non-CBs, Multiple Agencies	0.0005 (n = 29)	0.7275 (n = 15)	0.2961 (n = 25)	0.4461 (n = 22)
10. Non-OECD Non-CBs, Multiple Agencies	0.0004 (n = 1)	1.0000 (n = 1)	0.2623 (n = 1)	0.1721 (n = 1)
Overall average	0.010 (n = 88)	0.473 (n = 56)	0.217 (n = 61)	0.549 (n = 75)

Source: Goodhart, Schoenmaker and Dasgupta (2001).
¹⁾ Average ratios are shown with the number of agencies within brackets. The total number of respondents per ratio can be lower as not all of the 91 respondents completed all questions in the survey.

explanatory variables. The full set of institutional variables comprises both the supervisory role of each agency (sole supervisor, joint supervisor or not supervisor at all) and the duty (systemic stability, prudential supervision and/or conduct of business). In the second round, a set of economic variables (e.g. GNP, M1, M2, number of banks, stock exchange capitalisation) was added as explanatory variables. The setup of the regressions and the detailed results are reported in Goodhart, Schoenmaker and Dasgupta (2001). It should be noted that the results are affected by the different ways in which supervisory agencies answered the survey questions and should therefore be interpreted cautiously.

3 Results and implications

It is found that central banks hire more supervisors than non-central bank supervisory agencies. In particular, central banks employ more economists and fewer lawyers in their supervisory/financial stability wing than non-central banks. The empirical literature on financial crises has found that both microeconomic and macroeconomic factors have figured in past financial crises (e.g. Hellwig, 1995; Caprio and Klingebiel, 1997). This would suggest that prudential supervision should not only be aimed at the micro-level (examining individual financial institutions) but also at the macro-level (examining macroshocks affecting the financial system as a whole). The result that central banks hire relatively more economists would indicate that an institutional setting with central bank involvement is more likely to produce such a macro-approach than a setting without central bank involvement.

In an earlier paper (Goodhart and Schoenmaker, 1995), however, we have argued that there would be a demand for more direct political control over supervision as taxpayers are seen to be potentially liable during a crisis. This would, in turn, imply a trend towards separation between supervisory and monetary policy agencies, as it is difficult to reconcile political control over the supervisory wing of a central bank with independence for the monetary wing. The case for independence for



monetary policy is well established (e.g. Cukierman, 1992; Alesina and Summers, 1993).

Another argument against direct central bank involvement in supervision is a potential creep of the central bank safety net (Goodhart, 2000). The ongoing integration and concentration in the financial sector leads to a blurring of dividing lines between different financial sectors. This used to be only the case in Europe where universal banks and financial conglomerates have existed for some time. More recently, with the adoption of the Gramm-Leach-Bliley Act (e.g. Barth, Brumbaugh and Wilcox, 2000), financial conglomerates are also allowed in the US. This integration trend would call for a cross-sector approach in supervision to maintain effectiveness as well as to prevent inefficient overlap. For reasons of time inconsistency, it would be difficult for central banks to deny credibly the availability of the lender of last resort function out-

side the narrowly defined banking system, while being responsible for supervising the wider financial system.

Where do these conflicting arguments about central bank involvement in supervision leave us? A possible model is an institutional setting where the central bank and the supervisory agency are put together physically with mixing of staff, but separate boards. Putting the two close to each other would allow for a blending of the necessary skills



(the “hardware”) as well as the ethos and culture (the “software”). However, as both agencies would keep their own board, decision-making and accountability are separated. The supervisory part can thus be subject to greater political control, while the monetary part can (more) credibly restrict its lender of last resort function to the core banking system. An example of this model can be found in Finland, though not fully. After the severe financial crisis in the late 1980s/early 1990s, the supervisory agency responsible for banking and securities supervision was put next to the central bank, but kept its own board. The stated aim of this exercise was to get more economic skills (as well as more financial resources) into the supervisory agency, which was until then dominated by lawyers.

Next, the empirical results in this paper indicate that there are significant economies of scale in financial supervision, though this can be measured by several alternative variables (e.g. the scale of bank intermediation, GNP per capita). Not surprisingly, agencies with sole supervisory responsibility will have more regulators than those with either

joint or no supervisory responsibilities. An issue for further research is whether further economies of scale could be observed in countries with a mega-supervisor compared to countries with several joint supervisors. However, our database cannot produce the aggregate number of regulators in each country, as not all supervisory agencies in the countries under investigation replied to the questionnaire.

Finally, the design of financial system has a significant impact on the number and type of supervisors employed. A larger banking system will lead to relatively fewer regulators being hired, strongly indicating economies of scale. A higher stock market capitalisation, however, will lead to more regulators. There do not appear to be any economies of scope in financial supervision. Moreover, a higher stock market capitalisation raises the relative number of regulators with commercial experience as well as the relative number of lawyers. These results suggest that a more developed and complex financial system would need both more supervisors as well as more skilled ones. The positive effect of stock markets on economic growth (Levine and Zervos, 1998) seems to come at a price, albeit a small one.



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GERTRUDE TUMPEL-GUGERELL



GERTRUDE TUMPEL-GUGERELL
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Die optimale Gestaltung
von Finanzmarktregulierung
und Finanzaufsicht:
Die Herausforderung
der wachsenden Internationalisierung
der Finanzindustrie
Einleitungsstatement

Je weiter die Globalisierung der Finanzindustrie voranschreitet, umso mehr muss uns bewusst sein, dass auch Bemühungen zur Wahrung der Stabilität des Finanzsektors nur in einem globalen Kontext erfolgreich sein können. Systemische Finanzkrisen lassen sich nur dann verhindern, wenn nationale Aufsichtsbehörden über internationale Kommunikationsnetze in ständiger Verbindung miteinander stehen. Eine wirksame Risikobegrenzung durch Regulierung und eine effektive



Finanzmarktaufsicht stellen eine Grundvoraussetzung für das Funktionieren und die Stabilität der Finanzmärkte dar.

Die Aufsichtsbehörden sind gefordert, von der reinen Überprüfung der Umsetzung von Vorschriften abzugehen und verstärkt auf eine qualitative Aufsicht zu setzen. Die Risikosteuerung steht im Mittelpunkt des Interesses. Dafür sind Aufseher mit umfassender Erfahrung und Qualifikation erforderlich. Österreich muss mehr in die Finanzmarktaufsicht investieren. Nur dann werden wir mit den internationalen Entwicklungen Schritt halten können.

Wir sind mit zwei grundsätzlichen Fragen konfrontiert. Erstens: Wie soll Finanzmarktaufsicht organisiert sein, damit Stabilität und Funktionsfähigkeit der Finanzmärkte am besten gewährleistet sind? Und zweitens: Welche Rolle sollten die Zentralbanken bei der Finanzmarktaufsicht spielen?

Die Vielfalt der bestehenden und angestrebten Lösungen lässt darauf schließen, dass es eigentlich kein ideales Modell gibt.

In diesem Zusammenhang möchte ich gerne David Llewellyn zitieren: „Obwohl das institutionelle Gefüge an sich wichtig ist, ist es per se noch keine Garantie für eine schlagkräftige und effiziente Regulierung und Aufsicht, und es wäre fatal zu glauben, dass lediglich eine neue Aufsichtsstruktur ein Allheilmittel sei.“ (Llewellyn, 2000)

Der IWF hat vor kurzem in einer Studie festgestellt, dass das passendste institutionelle Gefüge für die Finanzaufsicht jene Lösung ist, die die Struktur des lokalen Marktes am besten widerspiegelt.

Damit möchte ich zur Frage übergehen, wie stark Zentralbanken in die Finanzaufsicht eingebunden sein sollten.

Die Oesterreichische Nationalbank ist der festen Überzeugung – und Gouverneur Liebscher hat das in seinem Einleitungsstatement heute morgen klar zum Ausdruck gebracht – dass Zentralbanken eine Schlüsselrolle bei der Bankenaufsicht spielen sollten. Der Grund dafür ist sehr simpel: Die Wahrung der Stabilität des Finanzsektors zählt zu den Hauptaufgaben einer Zentralbank. Nur in einem stabilen finanziellen Umfeld ist eine adäquate Umsetzung der Geldpolitik überhaupt möglich.

Durch eine enge Einbindung der Zentralbanken in die Bankenaufsicht lassen sich zahlreiche Synergieeffekte erzielen:

- Finanzdaten aus dem statistischen Meldewesen lassen sich sowohl für Zwecke der geldpolitischen Analyse als auch für die Finanzaufsicht verwenden.
- Die Zentralbank kann ihrer Verantwortung für die Stabilität des Finanzsystems am besten

nachkommen, wenn sie auch in die Bankenaufsicht und die Vor-Ort-Prüfungen unmittelbar eingebunden ist.

- Angesichts der Unabhängigkeit der Zentralbanken kann der Forderung der Basler Grundsätze nach einer möglichst hohen Unabhängigkeit der Aufsichtsbehörde am besten entsprochen werden, wenn die Behörde in der Zentralbank direkt oder in ihrer unmittelbaren Nähe angesiedelt ist.
- Nationale Zentralbanken arbeiten auf internationaler Ebene sehr eng zusammen. Wie schon eingangs erwähnt, ist es sehr wichtig, dass die Aufsichtsbehörden zum Meinungsaustausch auf ein gut funktionierendes Netzwerk zurückgreifen können, um so ihren Beitrag zur grenzüberschreitenden Finanzmarktstabilität zu leisten.

- Und schließlich der Punkt, der wohl am schwersten wiegt: Keine Finanzkrise kann ohne enge Einbindung der Zentralbanken gelöst werden. Aus diesem Grund muss die Zentralbank umfassende Kenntnisse über alle Finanzinstitute haben – ein Ziel, das sich nur durch die enge Einbindung der Zentralbanken in die Bankenaufsicht erreichen lässt.

Mit dieser Position hat die Oesterreichische Nationalbank auch Verständnis beim Bundesminister für Finanzen gefunden. Der Kern dieser Argumente findet sich heute bereits weitgehend im Gesetzesentwurf für die Finanzmarktaufsicht in Österreich wieder. 🐼

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ERNST WELTEKE



Das Design eines Aufsichtssystems aus dem Blickwinkel der Deutschen Bundesbank

Die Debatte über das bestmögliche Design für ein effizientes Aufsichtssystem hat sowohl in Österreich als auch in Deutschland durch die Vorstöße der jeweiligen Regierungen neue Anstöße bekommen. Gerne nehme ich die Gelegenheit wahr, hier auf der 29. Volkswirtschaftlichen Konferenz der Oesterreichischen Nationalbank einige grundsätzliche Überlegungen aus Sicht der Deutschen Bundesbank zu präsentieren.

I Ziele und Bausteine der Bankenaufsicht

Fragen der Bankenaufsicht sind von vitaler Bedeutung für eine Volkswirtschaft. Denn ein stabiles Finanzsystem stellt das Herzstück einer modernen Volkswirtschaft dar. Es versorgt die wirtschaftlichen Akteure mit Kredit und überträgt die geldpolitischen Impulse in die reale Sphäre der Volkswirtschaft.

Die internationale Aktivität von Finanzinstituten und das Revival der Allfinanzidee stellen neue Anforderungen an die Bankenaufsicht. Wie

hat ein effizientes und effektives Aufsichtssystem heute auszusehen?

„Form follows function“, der Leitgedanke des Bauhauses gilt auch in diesem so ganz anderen Kontext. Die Ziele der Finanzaufsicht bestimmen das Vorgehen und damit auch den institutionellen Rahmen. Die Ziele in der Finanzaufsicht unterscheiden sich jedoch in den einzelnen Sparten des Finanzsektors ganz erheblich.

Die Bankenaufsicht im engeren Sinne stellt auf die finanzielle Stabili-



tät des einzelnen Institutes und den Gläubigerschutz ab. Die Finanzmarktaufsicht soll die Integrität der Märkte bewahren. Die Versicherungsaufsicht hat in erster Linie den Schutz des Versicherungskunden im Visier. Ganz unterschiedliche Ansatzpunkte mithin. Eines ist jedoch klar: Über allem steht die Stabilität des *Finanzsystems*.

Als Notenbanker ist für mich die Bankenaufsicht von noch größerer Bedeutung als die Regulierung und Überwachung der anderen Finanzsparten. Ich werde mich daher zunächst auf den Regelungsrahmen für den Bankensektor konzentrieren. Was braucht man für ein effizientes System der Bankenaufsicht?

1. Einer der wichtigsten Bausteine im Aufsichtsgebäude sind sachgerechte *Regeln*. Regeln für die Märkte und Regeln für die Marktteilnehmer, möglichst wenig belastend, aber doch ihre Funktion erfüllend. Sie schaffen Verbindlichkeit und sorgen

gleichzeitig für Transparenz. Sie schützen die Stabilität des Finanzsystems. Die Regeln der Bankenaufsicht sind in Europa – nach dem Grundsatz der Mindestharmonisierung – heute bis zu einem gewissen Grad angeglichen.

2. Diese Regeln müssen in *Aufsichtspraktiken* mit Leben gefüllt werden. Die Praxis der Bankenaufsicht unterscheidet sich heute in den europäischen Ländern zum Teil noch recht deutlich. Manche Aufsichtsbehörden stützen sich bisher vorwiegend auf Meldungen und Berichte der Kreditinstitute. In anderen Ländern stehen Prüfungen vor Ort stärker im Vordergrund. Mit dem neuen Aufsichtskonzept „Basel II“ wird hier in gewissem Umfang eine Konvergenz der Aufsichtspraktiken in Richtung vermehrter Prüfungen vor Ort stattfinden, um die Risiken der Institute besser einschätzen zu können.
3. Das Aufsichtsgebäude muss mit Menschen gefüllt werden. Nur eine hinreichende Zahl gut qualifizierter *Experten* kann sicherstellen, dass das Ziel der Finanzmarktstabilität mit klugen Regeln und einer sachgerechten Aufsichtspraxis erreichbar ist.
4. Und schließlich müssen die Experten einen *institutionellen Überbau* bekommen. Der organisatorische Rahmen der Finanzaufsicht sollte die Marktstruktur spiegeln, nicht aber ihr voraus-eilen. Denn die Aufsichtsstruktur hat eine dienende Funktion mit Blick auf das Stabilitätsziel. Sie kann bzw. soll Marktstrukturen nicht beeinflussen. Organisatorische Fragen haben in den letzten Wochen die größte Aufmerksamkeit erfahren, obwohl ihnen doch unter allen Bau-

steinen materiell nicht die größte Bedeutung für die Stabilität des Finanzsystems zukommt.

Wie sieht Bankenaufsicht in der Praxis aus? Die Bankenaufsicht über einzelne Kreditinstitute liegt in nationaler Kompetenz. Der Maastrichter Vertrag und das Statut des Europäischen Systems der Zentralbanken (ESZB) legen dies für Europa so fest. Der nationale Gesetzgeber verpflichtet die Kreditinstitute, den Aufsichtsbehörden über ihre Geschäfte zu berichten. In Deutschland stellen die Kreditinstitute mit bankstatistischen Meldungen, Bilanzen sowie den Berichten externer Wirtschaftsprüfer den Bankenaufsehern eine Fülle von wichtigen Informationen bereit.

Die Aufsichtsexperten überprüfen anhand dieser Unterlagen laufend, ob die Banken sich regelkonform verhalten und ob besondere Risiken bestehen. Hinzu kommt der persönliche Kontakt zwischen Bankern und Aufsehern, z. B. in Gesprächen mit der Geschäftsleitung. Die Aufsicht vor Ort gewinnt international an Bedeutung.

Wenn die Experten der Aufsichtsbehörde bei ihren Prüfungen zu der Einsicht gelangen, dass Regeln verletzt werden, suchen sie zunächst das Gespräch mit der Geschäftsleitung. Zur Abwehr unmittelbar drohender Gefahren für die Stabilität eines Institutes oder des Systems steht ihnen eine ganze Reihe abgestufter Maßnahmen zur Verfügung.

International beruht die Bankenaufsichtspraxis auf enger Zusammenarbeit der nationalen Aufsichtsbehörden von Heimat- und Gastländern. Der vertragliche Rahmen für diese Kooperation wird in bilateralen Memoranda of Understanding beschrieben. Zusätzlich kommunizieren und kooperieren die Bankenaufseher multilateral in internationalen

Gremien, z. B. dem Banking Supervision Committee des ESZB.

Das Konzept „Heimatlandaufsicht plus internationale Zusammenarbeit“ nutzt den überragenden Vorteil der dezentralen Aufsicht: die Nähe zu Märkten und Instituten. Gleichzeitig werden grenzüberschreitende Aktivitäten der Banken und ihre Auswirkungen auf Instituts- und Systemstabilität aufmerksam beobachtet.

2 Rolle der Notenbanken in der Aufsicht

„Form follows function.“ Welcher Funktion folgt die Einbindung der Notenbanken in die Finanzaufsicht?

Die Geldpolitik bedient sich der Finanzmärkte zur Übertragung ihrer Impulse in die reale Sphäre der Volkswirtschaft. Finanzmärkte leiten die zins- und liquiditätspolitischen Signale der Notenbank weiter. Wird diese Transmission gestört, kann die Zentralbank ihren Auftrag zur Wahrung der Preisstabilität nicht erfüllen. Der von allen gewünschte Erfolg der Geldpolitik hängt mithin auch an dem reibungslosen Funktionieren der Finanzmärkte im jeweiligen Währungsgebiet.

Folgerichtig weist der EG-Vertrag dem Europäischen System der Zentralbanken in Artikel 105 – dem Kapitel über die Währungspolitik – eine Mitverantwortung für die Stabilität des Finanzsystems zu. Wie kann diese Mitverantwortung am besten mit Leben gefüllt werden?

Es wird Sie nicht überraschen, meine sehr verehrten Damen und Herren, wenn ich an dieser Stelle erneut dafür plädiere, die Bankenaufsicht zumindest eng an die Notenbanken anzubinden. Es gibt gute Gründe für die institutionelle Verankerung der Aufsichtsfunktion bei der Zentralbank.

Die Notenbanken sind nicht nur diejenigen, die naturgemäß das

größte Interesse an stabilen Finanzmärkten haben. Die Notenbanken sind auch diejenigen, die das beste Handwerkszeug dafür haben, Krisensymptome frühzeitig zu erkennen und Gegenmaßnahmen zu initiieren. Effizienzüberlegungen alleine gebieten es, mögliche Synergieeffekte zwischen Notenbank- und Aufsichtsfunktion nicht brachliegen zu lassen.

Die Notenbanken des Eurosystems stehen wie alle anderen Notenbanken dieser Welt in engem Kontakt mit den Finanzmarktteil-



nehmern. Diese sind unsere Partner bei den geldpolitischen Geschäften, aber auch nicht mehr. Das heißt, die Unabhängigkeit und politische Distanz zu den Instituten ist jederzeit gewahrt. Der Zentralbank fallen in

Ausübung ihrer Funktion zwangsläufig genaue Kenntnisse über die einzelnen Kreditinstitute und ihre Risikoprofile zu. Die Marktnähe produziert zudem ausführliche Informationen über die Vernetzung dieser individuellen Risikoprofile zu möglichen Systemrisiken.

Mikro- und makroprudenzielle Analyse gehören eng zusammen. Einerseits gründen Erkenntnisse über mögliche systemische Gefahren auf Informationen über die individuellen Positionen einzelner systemrelevanter Institute. Andererseits sind Informationen über Trends im Finanzsystem bei der Beurteilung der individuellen Risikoposition eines Institutes von großer Bedeutung.

Die makroprudenzielle Analyse ist für Notenbanken aufgrund ihres stabilitätspolitischen Auftrages ein unverzichtbares Kerngeschäft, das noch dazu immer wichtiger wird. Zentralbanken verfügen daher über sehr viel Expertise auf diesem

Gebiet der Finanzmarktanalyse. Die enge Einbindung der Notenbank in die Institutsaufsicht macht sich diese Kompetenz zunutze.

Stichwort „Zahlungsverkehr“: Die Verantwortung für dessen reibungsloses Funktionieren liegt bei den Notenbanken. Im Zahlungsverkehr stecken aber zweifellos erhebliche systemische Risiken für den Bankensektor. Nicht zuletzt deshalb, weil die Volumina und die Zahl der Transaktionen exponentiell gewachsen sind. Eine enge Verbindung der Überwachung des Zahlungsverkehrsystems und der Überwachung der Finanzintermediäre bietet sich daher an. So können mögliche Gefährdungen sowohl für einzelne Institute als auch für das Finanzsystem als Ganzes rechtzeitig erkannt werden.

Kommt es trotz aller präventiver Bemühungen der Finanzaufsicht doch zu einer Schieflage, ist die Zentralbank gefragt. In so einem Falle gilt es, die Stabilität des Finanzsystems kurzfristig zu sichern, damit die reale Volkswirtschaft gar nicht erst in Gefahr gerät. Erinnern Sie sich an den Herbst 1998. Beim Zusammenbruch eines Hedge Fonds in den USA zeigte sich kurz das Gespenst eines „credit crunch“, der zweifellos das Potenzial gehabt hätte, die Märkte nicht nur in den USA empfindlich zu stören.

Im Krisenfall muss schnell gehandelt werden. Der Zentralbank kommt eine doppelte Aufgabe zu. Die Bereitstellung liquider Mittel als „lender of last resort“ ist dabei der absolute Ausnahmefall, denn „moral hazard“ ist eine ernst zu nehmende Gefahr. Der Zentralbank, die für die Finanzmarktstabilität zuständig ist und auf die sich alle Erwartungen richten, müssen sämtliche relevanten Informationen unverzüglich zur Verfügung stehen. Die Zentralbank muss gegebenenfalls in Zusammenarbeit mit der Aufsichtsbehörde

ein illiquides von einem insolventen Institut unterscheiden, und zwar schnell. Sie muss diese Entscheidung vor den Märkten und vor dem Steuerzahler verantworten.

Die Fähigkeit der Zentralbank, zwischen Illiquidität und Insolvenz unterscheiden zu können, ist keine Fiktion. Im Gegenteil, sie bleibt auch im Fall eines systemisch relevanten Institutes, das von manchen Marktteilnehmern vielleicht allgemein als „too big to fail“ angesehen wird, besonders wichtig. Die Entscheidung, ob einem Institut – da illiquid – geholfen wird oder ob im Fall eines insolventen Institutes die Liquiditätshilfe zur Abwendung der Krise den gefährdeten Drittinstituten zufließt, kann nur auf der Grundlage einer engen Einbindung in die Bankenaufsicht und anhand von Informationen aus eigenen Quellen getroffen werden.

Weniger im Blickpunkt des öffentlichen Interesses steht die Moderatorenrolle, die Zentralbanken in Krisensituationen häufig wahrnehmen. Für die Abwendung systemischer Krisen ist sie aber ungleich wichtiger. Die Notenbank hat sowohl die nötigen Kontakte zu den Banken als auch die Autorität, alle beteiligten Parteien um einen Tisch zu versammeln. Sie ist unparteiisch und genießt das Vertrauen der Kreditinstitute. Um einen Interessenausgleich herbeizuführen, benötigt sie jedoch Informationen über die einzelnen Institute, über ihre Position im Markt und über ihre Verflechtung mit anderen Banken – zuverlässige Informationen aus erster Hand.

Die Erfahrung lehrt leider, dass Krisen trotz Prävention nicht auszuschließen sind. Krisen schnell und geräuschlos bewältigen zu können, um Schaden von der Volkswirtschaft in ihrer Gesamtheit abzuwenden, sollte ein guter Grund sein,

die Zentralbanken mit maßgeblichen Funktionen im Rahmen der Bankenaufsicht zu betrauen.

Die Einbindung der Notenbanken in die Finanzaufsicht ist also wohlbegründet. Dennoch sehen wir derzeit unterschiedliche Vorgehensweisen. Einige Länder – etwa das Vereinigte Königreich und Australien – haben die Funktionen der Finanzaufsicht in einer von der Zentralbank getrennten Behörde zusammengefasst. Die Bewährungsproben für diese Institutionen stehen noch aus.



In den USA hingegen wurde die Aufsichtsfunktion der Notenbank bewusst gestärkt. Mit dem Gramm-Leach-Bliley Act wurde erstmals die gesetzliche Möglichkeit zur Errichtung von Finanzholdinggesellschaften geschaffen. Die Aufsicht über diese komplexen und gleichzeitig systemrelevanten Konzerne wurde dem Board der Federal Reserve übertragen. „Form follows function.“ Das ist konsequentes Design eines Aufsichtssystems.

3 Internationalisierung der Aufsicht

Das Bankgeschäft ist heute ein internationales Geschäft. Doch gilt es, genau hinzuschauen. Die nationalen Bankensysteme sehen sehr unterschiedlich aus. Die große Mehrzahl der Finanzinstitute und das Retailgeschäft sind nach wie vor nationaler oder gar nur lokaler Natur. Das gesamte Bankgeschäft – national wie international – unterliegt der nationalen Aufsicht. Die Heraus-

forderung für die Aufsichtsbehörden liegt darin, das Spielfeld international weiter zu ebnen. Aufsichtsarbitrage zwischen Gast- und Heimatland darf sich nicht lohnen.

Der Basler Ausschuss für Bankenaufsicht hat 1988 mit dem ersten Eigenkapitalakkord in dieser Hinsicht einen Meilenstein gesetzt. Der zweite Meilenstein ist in Arbeit. Heute endet die Frist für Stellungnahmen zum Konsultationspapier für eine neue Basler Eigenkapitalvereinbarung. „Basel II“ beschreibt

Die Eigenkapitalausstattung einer Bank ist nach „Basel II“ sehr viel genauer an den ökonomischen Risiken ausgerichtet. In unserer zunehmend komplexen und vernetzten Finanzwelt reicht dies allein jedoch nicht aus. Das Risiko-/Ertragsprofil einer Bank und ihre Fähigkeit, diese Risiken zu steuern, gewinnen an Bedeutung. Das neue Aufsichtskonzept „Basel II“ trägt dem Rechnung. Es ist ein Schritt zu einer stärker qualitativ ausgerichteten Bankenaufsicht. Für viele Länder, auch für uns, geradezu ein Paradigmenwechsel.

Neben die risiko-adäquate Eigenkapitalausstattung einer Bank treten zwei weitere Säulen. Im Supervisory Review Process nimmt die Bankenaufsicht das Risikomanagement und

ein neues Aufsichtskonzept für international tätige Banken. Formal wird dieses neue Aufsichtskonzept zunächst nur für international tätige Banken in den G-10-Ländern gelten. Faktisch wird es die Finanzbranche weltweit beeinflussen.

Die Entwicklung der Finanzmärkte und die Informationstechnologie haben das typische Risikoprofil einer Bank verändert. Das neue Aufsichtskonzept „Basel II“ trägt dem in mehrfacher Hinsicht Rechnung. Operationelle Risiken etwa sind kein Novum des IT-Zeitalters. Dennoch haben sie beim heute üblichen Technisierungsgrad des Bankgeschäftes ein größeres Potenzial, den Bestand eines Institutes zu gefährden. Bisher wird das operationelle Risiko einer Bank implizit im Eigenkapitalstandard berücksichtigt. Nach „Basel II“ wird das operationelle Risiko nach einem von drei möglichen Verfahren quantifiziert und explizit mit Kapital unterlegt.

die institutseigene Kapitalallokation der Bank in den Fokus. So setzt sie den Banken Anreize für die fortlaufende Überprüfung und Verbesserung ihres Risikomanagements und ihrer internen Kontrollen. Erweiterte Offenlegungspflichten schaffen in der dritten Säule mehr Transparenz und binden so die Finanzmärkte in die Aufsicht mit ein.

Der Basler Prozess ist noch nicht am Ende angelangt. Eine Reihe von Fragen muss noch gelöst werden – in vertrauensvoller Zusammenarbeit mit der Kreditwirtschaft und dies bis zum Ende der Verhandlungen. „Basel II“ ist schließlich auch eine politische Angelegenheit, denken Sie nur an die Auswirkungen auf den Wettbewerb. Im Jahr 2004 wird „Basel II“ gelten und das Spielfeld für international tätige Banken hoffentlich ebener sein als heute. Die Harmonisierung der Regeln und der Aufsichtspraktiken wird jedoch auch danach weitergehen. Die schnelle



Entwicklung der Finanzmärkte und der Informationstechnologie lassen keine Ruhepause zu.

Die nationalen Aufsichtsbehörden arbeiten in einer ganzen Reihe internationaler Gremien auf verschiedenen Ebenen hervorragend zusammen. Gemeinsames Ziel ist es, die Stabilität des Finanzsystems zu schützen. In Europa tauschen sich hochrangige Vertreter der nationalen Aufsichtsbehörden der EU-Länder im Banking Supervision Committee des ESZB aus. Es wurde gegründet, um den Auftrag zur Unterstützung der Finanzmarktstabilität auszufüllen. Wie die Bankenaufseher kooperieren auch die Versicherungsaufseher und die Wertpapieraufseher in ihren internationalen Standesorganisationen, der International Association of Insurance Supervisors (IAIS) und der International Organisation of Securities Commissions (IOSCO), mit großem Erfolg.

Das Forum für Finanzstabilität (FSF) ist hingegen sektorenübergreifend. Es wurde im April 1999 im Auftrag der G-7 gegründet. Aufgabe des FSF ist es, Finanzmarktprobleme frühzeitig aufzudecken sowie Wege zur Überwindung bestehender Schwierigkeiten aufzuzeigen. In diesem jungen Gremium arbeiten Vertreter der mit Fragen der Finanzmarktstabilität befassten nationalen Behörden zusammen, auch von wichtigen Finanzplätzen außerhalb der G-7-Länder.

Auch der IWF spielt seine Rolle bei der Stärkung des internationalen Finanzsystems. Er beobachtet Entwicklungen in der Weltwirtschaft und auf den Finanzmärkten sowie im Rahmen der Artikel-IV-Konsultationen die Wirtschafts-, Geld- und Finanzpolitik seiner Mitgliedstaaten. Er sucht aktiv nach Möglichkeiten, die Tragfähigkeit des internationalen Finanzsystems zu verbessern. Die frühzeitige Beteiligung von Gläubi-

gern an der Krisenbewältigung soll dabei unangemessenes Risikoverhalten von Marktteilnehmern von vornherein unterbinden.

International sind wir in der Bankenaufsicht auf dem richtigen Weg. Wir arbeiten daran, durch eine zunehmende Harmonisierung von Regeln und Praktiken einen fairen Wettbewerb der Marktteilnehmer sicherzustellen. Gleichzeitig stehen wir Aufseher untereinander in engem Kontakt, um internationale Trends oder neue Risiken frühzeitig aufzuspüren.

4 Allfinanzfragen

Die Allfinanzidee, die in den Achtzigerjahren schon einmal in aller Munde war, erlebt heute einen zweiten Frühling. Brauchen wir also eine institutionalisierte Konglomerataufsicht oder ist wiederum die Kooperation der Spezialisten die Vorgehensweise der Wahl?


Ähnlich wie bei den internationalen Aktivitäten der Banken gilt es auch hier, nicht nur auf die Aufsehen erregenden Einzelfälle zu achten. Der weitaus größte Teil der Finanzdienstleistungen wird einzeln oder aus Kooperationen von Finanzdienstleistern heraus angeboten, nicht aber unter einem gemeinsamen rechtlichen Dach. Die beschlossene Übernahme der Dresdner Bank durch die Allianz könnte der Anfang eines Trends sein. Sie muss es aber nicht.

Macht es Sinn, die Institutsaufsicht zu integrieren, solange Finanzkonglomerate noch die seltene Ausnahme sind? Die Geschäftsrisiken der verschiedenen Typen von Finanzdienstleistern unterscheiden sich ganz deutlich. Selbst der Zentrale Kreditausschuss (ZKA) hat in seiner Stellungnahme zu „Basel II“ die „völlig abweichende Charakteristik“ der Versicherungsrisiken von den banktypischen Kredit- und Marktrisiken bestätigt. Unterschiedliche

Ziele und Schwerpunkte in der Überwachung der Banken, der Wertpapierhäuser und der Lebensversicherungsunternehmen spiegeln das wider. Entsprechend sind auch die Regeln und die Aufsichtspraktiken verschieden. Eine vom ZKA geforderte weltweite Harmonisierung von Regeln für Finanzkonglomerate wird noch längere Zeit auf sich warten lassen. Fortschritte sind hier bisher nicht erkennbar.

5 Schlusswort

Meine sehr verehrten Damen und Herren! Ich bin Notenbanker. Design muss für mich in erster Linie funktionell sein. Die wichtigste Funktion eines Aufsichtssystems ist

es, für Stabilität zu sorgen. Wie wichtig finanzielle Stabilität für die gesamte Wirtschaft, aber auch für alle Bürger und Bürgerinnen ist, zeigen Finanzkrisen rund um die Welt. Die Notenbanken haben aufgrund ihres geldpolitischen Stabilitätsauftrages nicht nur einen komparativen, sondern sogar einen absoluten Vorteil bei der Absicherung der Systemstabilität. Die Marktnähe der Notenbanken gilt es zu nutzen, und zwar in der Institutsaufsicht, in der internationalen Kooperation der Aufseher und schließlich bei der Entwicklung neuer Aufsichtskonzepte in Reaktion auf Trends im Finanzgewerbe. 



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Die Gestaltung des Bankenaufsichtssystems aus Sicht der Geschäftsbanken

Ich werde im Folgenden das Thema Finanzmarktaufsicht aus der Sicht von Geschäftsbanken beleuchten. Ich schicke voraus, dass wir das derzeitige System der Banken-, Versicherungs- und Pensionskassenaufsicht für prinzipiell gut und seinen Aufgaben effizient nachkommend erachten. Wenn der politische Wille in eine andere Richtung geht, so halten wir die weiter unten beleuchteten Faktoren für essenziell. Ein diesbezüglicher Entwurf ging als Regierungsvorlage Anfang Juni 2001 in den Ministerrat und soll noch vor dem Sommer beschlossen werden, damit er Anfang 2002 umgesetzt werden kann.

Allfinanzaufsicht in unabhängiger Behörde

Der aktuelle Entwurf sieht vor, dass die derzeit zwischen dem Finanzministerium und der Oesterreichischen Nationalbank in mehreren Abteilungen aufgeteilte Bankenaufsicht laut Vorschlag des Finanzministeriums in eine unabhängige Institution ausgegliedert werden soll.

Deren Vorstand würde auf Vorschlag der Bundesregierung vom Bundespräsidenten bestellt und könnte nur aus wichtigen Gründen vom Finanzminister abberufen werden. Weiters soll es einen Aufsichtsrat geben, dessen Mitglieder vom Finanzminister, teilweise über Vorschlag der OeNB, bestellt werden. Eine Entsendung von Mitgliedern ohne Stimmrecht seitens der Beaufsichtigten ist den Banken zugesichert. Das erscheint vor allem wegen der notwendigen Kostenkontrolle als wesentlicher



Punkt. Diese Mitglieder sind selbstverständlich nur für Themen kooptiert, die sich mit Budget, Kosten, Stellenplan etc. beschäftigen.

Dieser Finanzmarktaufsichtsbehörde sollen auch die Versicherungs-, Wertpapier- und Pensionskassenaufsicht übertragen werden, womit der Finanzminister der zunehmenden – aber bis dato noch immer sehr geringen – Überschneidung der Produktpaletten der Finanzdienstleister auf dem Markt Rechnung tragen und Doppelgleisigkeiten vermeiden will.

Weiters hat sicherlich auch der Ausblick auf die neuen Eigenmittelvorschriften („Basel II“) eine wesentliche Rolle gespielt. Zu „Basel II“ wäre grundsätzlich festzuhalten:

Die Weiterentwicklung der Eigenmittelvorschriften und deren stärkere Orientierung am wirtschaftlichen Risikogehalt sehen die Banken grundsätzlich positiv. Aber aus der Sicht eines kleinen Landes mit klein- und mittelbetrieblichen Strukturen in der Kredit- und Gesamtwirtschaft ist auf eine Reihe schwerwiegender Probleme hinzuweisen. Österreich ist nicht selbst Mitglied in Basel. Daher ist zu hoffen, dass die EU-Kommission gerade diese Strukturen

besonders berücksichtigt und unsere Sorgen teilt. Die Tatsache, dass die gegenständlichen Papiere zuerst in New York und dann in Europa veröffentlicht werden, verstärkt diese Sorgen.

Die Anerkennung des internen Ratings ist als wesentlicher Fortschritt zu sehen, aber es müssen die Voraussetzungen für die aufsichtsrechtliche Anerkennung des internen Ratings auf breiter Ebene auch erfüllt werden können. Und am grundsätzlichen Ziel, die ursprüngliche Eigenmittelverpflichtung im System nicht zu erhöhen, sollte unbedingt festgehalten werden. Alle bisherigen Hinweise deuten jedoch darauf hin, dass es zu einer Erhöhung der Eigenmittelverpflichtungen und damit auch der Kosten kommt. Da die Ergebnisse einer einschlägigen Studie über die tatsächlichen Auswirkungen (Impact Study) erst im Sommer vorliegen werden, müsste vor der Festlegung der tatsächlichen Risikogewichte nochmals die Kreditwirtschaft in den Meinungsbildungsprozess einbezogen werden. Andernfalls besteht die Gefahr höherer Kosten für den Kunden.

Mit diesen für 2004 zu erwartenden Regelungen sollen der Bankenaufsicht zusätzliche Kompetenzen bei der Frage der notwendigen Eigenmittelausstattung jeder Bank zukommen. Die differenzierte Betrachtung der Risiken und Eigenmittel wird es nämlich ermöglichen, dass im Zuge der so genannten „supervisory review“ die Finanzmarktaufsicht einzelnen Banken aufgrund ihrer individuellen Risikosituation Eigenmittelzuschläge verordnen kann. Daraus wird unser Interesse an einer extrem professionellen Bankenaufsicht mit einem Blick für gesamtwirtschaftliche Zusammenhänge klar. Hier kann unsachgemäße Anwendung zu bleibenden volkswirtschaftlichen Schäden führen.

Anforderungen an die Finanzmarkt- aufsicht

Nicht nur dem Staat ist im Interesse des Funktionsschutzes (das ist der Schutz des volkswirtschaftlichen Interesses an einem funktionierenden Bankwesen) und des Gläubigerschutzes eine gut funktionierende Aufsicht ein Anliegen, auch die zu beaufsichtigenden Banken selbst profitieren von einem intakten Vertrauen in den Finanzmarkt. Auch wenn die Tätigkeit der Bankenaufsicht für die geprüften Institute nicht immer angenehm und regelmäßig mit Mehraufwand verbunden ist, erspart sie letztlich allen Beteiligten, vom Kunden über die Banken bis zum Staat, finanzielle Verluste. Man darf dabei auch nicht vergessen, dass jede Bankenkrise nicht nur finanzielle Einbußen, sondern auch negative Auswirkungen für die Reputation des Finanzplatzes mit sich bringt.

Die gute Zusammenarbeit sämtlicher Teilnehmer in dieser Beziehung ist von großer Wichtigkeit und trägt wesentlich zum Erreichen des Gesamtzieles bei. Die Anforderungen der Geschäftsbanken werden daher von einem zentralen Thema dominiert:

- der Ausnutzung sämtlicher Synergiepotenziale und
- der Vermeidung von Doppelgleisigkeiten zwischen Finanzmarktaufsicht, Zentralbank und Finanzministerium.

Der Wunsch der Banken konzentriert sich im Wesentlichen auf die Erzielung größtmöglicher Effizienz sowie auf die Vermeidung von organisatorisch bedingten finanziellen Mehrbelastungen im Allgemeinen bzw. bei zu prüfenden Instituten im Besonderen. Doppelte Prüfungen zu gleichen Themen und Verwaltungsmehraufwand gilt es jedenfalls nachhaltig zu vermeiden.

Hier sind klare gesetzliche und organisatorische Regeln vorzusehen, und es ist eine entsprechende Aufgabenabgrenzung mit der Oesterreichischen Nationalbank zu treffen, wie beispielsweise bezüglich

- bankenaufsichtsrechtlicher und statistischer Meldungen,
- EZB-Meldungen,
- Datenerfassung, -prüfung und -auswertung sowie
- Vor-Ort-Prüfungen,

um nur einige wesentliche Punkte zu nennen. Die Banken würden sich



jedenfalls wünschen, dass auch und insbesondere die Risikofrüherkennungssysteme der Einlagensicherungen als kostengünstige Hilfseinrichtung für die Behörde herangezogen werden können.

Die Einrichtung einer Allfinanzaufsicht entspricht der Entwicklung in Richtung Allfinanzkonzerne. Die – wie es in der Vorlage heißt – „fachlichen Besonderheiten und unterschiedlichen Zielsetzungen verschiedener Aufsichtsbereiche“ sollen jedoch „angemessen berücksichtigt ... und auf sektorale Besonderheiten soll möglichst Bedacht genommen werden“ (§ 6/2). Das heißt, die bewährte klare Sparten-trennung zwischen Bank-, Versicherungs-, Wertpapier- und Pensionskassengeschäft soll erhalten bleiben. Die Banken haben das mit einer gewissen Genugtuung aufgenommen. Denn die Verschiedenartigkeit der Risiken bzw. der Risikogleichlauf macht im Gegensatz zur Risikostreuung unterschiedliche Ansätze und

differenzierte Techniken für die Aufsichtstätigkeit notwendig. Die Banken werden jedenfalls darauf achten, dass diese Richtlinien dann in der Geschäftsordnung entsprechend umgesetzt werden.


Nach Meinung der Geschäftsbanken ist die Finanzmarktaufsicht letztendlich eine Kernaufgabe des Staates, die auch die Finanzierungsverantwortung inkludiert. Gerade auf einem relativ kleinen Markt wie Österreich ist eine effiziente Bankenaufsicht naturgemäß mit vergleichsweise hohen Kosten verbunden.

Resümee

Zusammenfassend lässt sich festhalten: Die österreichischen Geschäftsbanken begrüßen im bereits erwähnten Interesse an einem vertrauenswürdigen Finanzmarkt mit einer gut funktionierenden Aufsicht Reformen zur Verbesserung der Effizienz. Die Nutzung von Synergien und größtmögliche Kosteneffizienz müssen jedoch als zentraler Teil der Reformbewegung gesehen werden. Die Kostenkontrolle ist ein zentrales Anliegen der Banken, die schließlich die Hauptlast der Kosten zu tragen haben.

Die Banken wollen nicht an verschiedene Stellen womöglich Ähnliches melden müssen und auch nicht von mehreren Stellen geprüft werden. Wenn es eine Allfinanzaufsicht

geben soll, dann mit einer klaren Unterteilung der verschiedenen Sparten, die trotz aller Überschneidungen ein unterschiedliches Verfahren benötigen. Schließlich hat sich die sektorspezifische Unterteilung innerhalb der eigentlichen Bankenaufsicht sehr bewährt und ihre Beibehaltung würde sicherstellen, dass die entsprechenden Erfahrungen der bestehenden Bankenaufsicht weiterhin genutzt werden können.

Der zur Zeit vorliegende Gesetzesentwurf zur Neugestaltung der Bankenaufsicht kommt in einer Reihe von Punkten und Wünschen den Banken näher bis nahe. Allerdings werden in der Durchführung noch eine Reihe von Diskussionen notwendig sein. Eines ist allen Beteiligten, bei aller Unterschiedlichkeit ihrer Standpunkte, jedoch klar: Keine noch so strengen zusätzlichen Bestimmungen, sowohl bei der Finanzaufsicht als auch bei den neuen Eigenmittelvorschriften laut „Basel II“, können Bankenrisiken und Bankenzusammenbrüche vollständig verhindern. Ziel der laufenden Überlegungen muss es daher sein, eine dem modernen Finanzwesen adäquate Aufsicht zu haben, die aber auch im Rahmen ihrer eigenen Organisation den Prinzipien Effizienz, Transparenz, Synergie mit anderen Behörden und Wirtschaftlichkeit verpflichtet sein muss. 



DAVID T. LEWELLYN



A Regulatory Regime for Financial Stability

I Introduction and issues

Just as the causes of banking crises are multi-dimensional,¹⁾ so the principles of an effective regime for financial stability need to incorporate a wider range of issues than externally imposed rules on bank behaviour. This suggests that strategies to avoid future banking crises also need to be multi-dimensional involving macro policy, the conduct of regulation and supervision by official agencies, the creation of appropriate incentive structures, the development of market discipline and the internal governance and management of financial institutions.

In this context, the paper considers alternative approaches to achieving the objective of financial stability. A maintained theme is that what are often viewed as alternatives are in fact complements within an overall regulatory strategy. The discussion is set within the context of what will be termed a *regulatory regime* which is wider than the rules and monitoring conducted by official regulatory and supervisory agencies. In essence,

¹ See Brealey (1999), Corsetti, Pesenti and Rabini (1998), Lindgren, Garcia and Saal (1996) and Llewellyn (2000).

the focus is on how the components of a *regulatory regime* are to be combined to produce an optimum *regulatory strategy*.

The central theme is that the components of the *regulatory regime* need to be combined in an overall strategy, and that while all the components are necessary, none alone is sufficient. A myopic focus on any one of the components (e.g. regulation) is likely to produce sub-optimum outcomes. The objective should be to optimise a regulatory



strategy by combining the components of the regime, bearing in mind that there may be negative tradeoffs between the different components. Thus, if regulation is badly constructed or taken too far, there may be negative impacts on other components to an extent that the overall effect of the regime in ensuring financial stability is weakened.

As bank failures clearly involve avoidable costs, there is a welfare benefit to be derived from lowering the probability of bank failures, and reducing the cost of those bank failures that do occur. In what follows, these are the twin objectives of the *regulatory regime*. The objective of the paper is to suggest a wider paradigm for ensuring financial stability.

The general economic rationale for financial regulation has been outlined elsewhere (Llewellyn, 1999). For purposes of the present paper, the economic rationale for regulation is taken as given. While this ground will not be repeated, two observations are entered at the outset. Firstly, the presence of an economic rationale for regulation does not justify everything that a regulator does. Secondly, the case for regulation does not exclude a powerful role

for other mechanisms to achieve the objectives of systemic stability and legitimate (but limited) consumer protection. On the contrary, the central theme of the paper is to emphasise that the various components of the *regulatory regime* need to be combined in an overall *regulatory strategy*. There is a potential danger that the regulation component, if pressed too far, will blunt other mechanisms and in the process weaken the impact of the overall regime.

The structure of the paper is as follows. Section 2 establishes the concept of the *regulatory regime* and the tradeoffs that can exist between its components. This is followed in section 3 by a more detailed discussion of six of the seven components of the regime. Section 4 suggests a series of desirable shifts within the *regulatory regime* and, in this context, offers a brief assessment of the recently-issued Basel Committee consultative paper on capital adequacy. A brief overall assessment is offered in section 5.

2 The regulatory regime

The concept of a *regulatory regime* is wider than the set of prudential and conduct of business rules established by regulatory agencies. External regulation potentially has a positive role in fostering a safe and sound financial system and consumer protection. However, this role, while important, is limited, and insufficient in itself. Equally, and increasingly important, are the other components of the regime and most especially the incentive structures faced by financial firms, and the efficiency of the necessary monitoring and supervision by official agencies and the market.

The central thesis is that regulation needs to be viewed not solely in the narrow terms of the rules

established by regulatory agencies, but in the wider context of a *regulatory regime* the seven components of which are:

- (1) the explicit *regulation component* (rules established by regulatory and supervisory agencies);
- (2) *official monitoring and supervision* (i.e. by official agencies);
- (3) the *incentive structures* faced by banks;
- (4) the role of *market discipline and monitoring*;
- (5) *intervention arrangements* in the event of bank failures;
- (6) the role of internal *corporate governance* arrangements within banks, and
- (7) the disciplining and *accountability* arrangements applied to regulatory agencies.

What are often viewed as alternatives, are in fact complements within an overall regulatory strategy.

The debate should ultimately be about how to optimise the combination of the seven components of the regime. It is not a question of choosing, for instance, between *either* regulation *or* market disciplines. This is a false dichotomy.

A maintained theme is that a *regulatory regime* needs to be viewed more widely than externally-imposed regulation on financial institutions. In current conditions it would be a mistake to rely wholly, or even predominantly, on external regulation, monitoring and supervision by the “official sector”. The world of banking and finance is too complex and volatile to warrant dependence on a simple set of prescriptive rules for prudent behaviour. The central role of incentive structures needs to be constantly emphasised. There are many reasons (market imperfections and failures, externalities, “grid lock” problems and moral hazards associated with safety-net arrangements) why incen-

tive structures within financial firms may not be aligned with regulatory objectives (Llewellyn, 1999).

This means that a central consideration for the regulator is the impact its own rules have on regulated firms’ incentive structures, whether they might have perverse effects, and what regulation can do to improve incentives. Incentive structures need to be at the centre of all aspects of regulation because if these are wrong it is unlikely that the other mechanisms in the regime will achieve the regulatory objectives. It is necessary to consider not only how the various components of the regime impact directly on regulatory objectives, but also how they operate indirectly through their impact on the incentives of regulated firms and others. Incentive structures are at the heart of the regulatory process.



2.1 Tradeoffs within the regulatory regime

Within the *regulatory regime* tradeoffs emerge at two levels. In terms of regulatory strategy, a choice has to be made about the balance of the various components and the relative weight to be assigned to each. For instance, a powerful role for official regulation with little weight assigned to market discipline might be chosen, or alternatively a relatively light touch of regulation but with heavy reliance on the other components. A given degree of effectiveness can be provided by different combinations of rules, supervision, market discipline etc. and with various degrees of discretion applied by the regulator.

The second form of tradeoff relates to how the components of

the regime may be causally related. In some circumstances the more emphasis that is given to one of the components (e.g. regulation) the less powerful becomes one or more of the others (e.g. market discipline on banks) and to an extent that may reduce the overall impact. Thus, while regulation may be viewed as a response to market failures, weak market discipline, and inadequate corporate governance arrangements, causation may also operate in the other direction with



regulation weakening these other mechanisms. For instance, the more emphasis that is given to detailed, extensive and prescriptive rules, the weaker might be the role of incentive structures, market discipline and corporate governance arrangements within financial firms. This has been put by Simpson (2000) as follows: "In a market which is heavily regulated for internal standards of integrity, the incentives to fair dealing diminish. Within the company culture, such norms of fair dealing as 'the way we do things around here' would eventually be replaced by 'It's OK if we can get away with it'". In other words, an excessive reliance on detailed and prescriptive rules may weaken incentive structures and market discipline.

Similarly, an excessive focus on detailed and prescriptive rules may weaken corporate governance mechanisms within financial firms, and may blunt the incentive of others to monitor and control the behaviour of banks. Weakness in corporate governance mechanisms may also be a reflection of banks being monitored, regulated and supervised by official agencies. The way intervention is conducted in the event of bank dis-

tress (e.g. whether forbearance is practised) may also have adverse incentive effects on the behaviour of banks and the willingness of markets to monitor and control banks' risk-taking.

3 Components of a regulatory regime

Having established the overall framework and the nature of the *regulatory regime*, this section considers some of the key issues related to six of the seven components with particular reference to a regulatory strategy designed to optimise the overall effect of the regime.

3.1 Regulation

Three particular issues arise with respect to the regulation part of the regime: the weight to be given to formal and prescriptive rules of behaviour, the impact that rules may have on the other components of the *regulatory regime*, and the extent to which the rules differentiate between different banks.

3.1.1 Prescriptive rules

A former US regulator has noted: "Financial services regulation has traditionally tended towards a style that is command-and-control, dictating precisely what a regulated entity can do and how it should do it ... generally, they focus on the specific steps needed to accomplish a certain regulatory task and specify with detail the actions to be taken by the regulated firm" (Wallman, 1999). This experience of the US also suggests that the interaction of the interests of the regulator and the regulated may tend towards a high degree of prescription in the regulatory process. Regulators tend to look for standards they can easily monitor and enforce, while the regulated seek standards they can comply with. The result is that

regulators seek precision and detail in their requirements, while the regulated look for certainty and firm guidance on what they are to do. Wallman suggests: "The result is specific and detailed guidance, not the kind of pronouncements that reflect fundamental concepts and allow the market to develop on its own".

Although precise rules have their attractions for both regulators and regulated firms, several problems emerge with a highly prescriptive approach to regulation:

- An excessive degree of prescription may bring regulation into disrepute if it is perceived by the industry as being excessive, with many redundant rules.
- Risks are often too complex to be covered by simple rules.
- Balance sheet rules reflect the position of an institution only at a particular point in time, and its position can change substantially within a short period.
- An inflexible approach based on a detailed rule book has the effect of impeding firms from choosing their own least-cost way of meeting regulatory objectives.
- Detailed and extensive rules may stifle innovation.
- A prescriptive regime tends to focus upon firms' processes rather than outcomes and the ultimate objectives of regulation. The rules *per se* may become the focus of compliance rather than the objectives they are designed to achieve. In this regard, it can give rise to a perverse culture of "box ticking" by regulated firms. The letter of the regulation may be obeyed but not the spirit or intention.
- A prescriptive approach is inclined towards "rules escalation" whereby rules are added over time, but few are withdrawn.
- A highly prescriptive approach may create a confrontational relationship between the regulator and regulated firms, or alternatively cause firms to overreact and engage in excessive efforts at internal compliance out of fear of being challenged by the regulator. In this sense, regulation may become more prescriptive and detailed than is intended by the regulator because of the culture that a rules-based approach generates.
- In the interests of "competitive neutrality", rules may be applied equally to all firms, although they may be sufficiently heterogeneous as to warrant different approaches. A highly prescriptive approach to regulation reduces the scope for legitimate differentiations. Treating as equal firms that in practice are not equal is not competitive neutrality.
- A prescriptive rules approach may in practice prove to be inflexible and not sufficiently responsive to market conditions.
- A potential moral hazard arises in that firms may assume that, if something is not explicitly covered in regulations, there is no regulatory dimension to the issue.
- Detailed rules may also have perverse effects if they are regarded as actual standards to be adopted rather than minimum standards with the result that, in some cases, actual behaviour of regulated firms may be of a lower standard than without rules. This is most especially the case if each firm assumes its competitors will adopt the minimum regulatory standard.

3.1.2 Impact of rules

A second issue refers to the question of whether the degree of precision in rules has a positive or negative impact on compliance and the other components of the regime. For reasons already suggested, precision and detail may have a negative impact on compliance and compliance culture: If something is not explicitly disallowed, it is presumed to be allowed. Conversely, a regime based more on broad principles than detailed and extensive rules has certain advantages: Principles are easily understood and remembered, they apply to all behaviour, and they are more likely to have a positive impact on overall compliance culture. It might also be the case, as suggested



by Black (1994), that principles are more likely to become Board issues with the Board of Financial Firms adopting compliance with principles as a high level policy issue, rather than a culture of “leaving it to the compliance department”. As put by Black, “it helps chief executives to see the moral wood from the technical trees”.

3.1.3 Differentiation

A central issue in regulation for financial stability is the extent to which it differentiates between different banks according to their risk characteristics and their risk analysis, management and control systems. Most especially when supervisory resources are scarce, but also in the interests of efficiency in the banking system, supervision needs to be more detailed and extensive with banks deemed to be riskier than others. The objective of “competitive neutrality” in regulation does not mean that all banks are to be treated

in the same way if their risk characteristics are different. Reflecting the practice in the UK, Richardson and Stephenson (2000) argue that the Financial Services Authority (and formerly the Bank of England) treats the requirements of the Basel Accord as minima and requires individual banks to hold more capital than the minima dependent upon their risk exposure. Capital requirements are set individually for each bank. The authors list the major factors that are taken into account when setting individual bank’s capital requirements: experience and quality of the bank’s management, the bank’s risk appetite, the quality of risk analysis, management and control systems, the nature of the markets in which it operates, the quality, reliability and volatility of earnings, the quality of the bank’s capital and access to new capital, the degree of diversification, exposure concentrations, the complexity of a bank’s legal and organisational structure, the support and control provided by shareholders and the degree to which a bank is supervised by other jurisdictions. As the authors note, “these considerations imply that the appropriate margin above the minimum regulatory capital requirements will differ across banks”.

3.2 Monitoring and supervision

Because of the nature of financial contracts between financial firms and their customers, continuous monitoring of the behaviour of financial firms is needed. The question is who is to undertake the necessary monitoring: customers, shareholders, rating agencies etc. In practice, there can be only a limited monitoring role for retail depositors due to major information asymmetries which cannot easily be rectified, and because depositors face the less costly option of withdrawal of depos-

its. Saunders and Wilson (1996) review the empirical evidence on the role of informed depositors. The funding structure of a bank may also militate against effective monitoring in that, unlike with non-financial companies, creditors tend to be numerous with each stakeholder having a small stake.

As most (especially retail) customers cannot in practice undertake monitoring, and in the presence of deposit insurance they may have no incentive to do so, an important role of regulatory agencies is to monitor the behaviour of banks on behalf of consumers. In effect, consumers delegate the task of monitoring to a regulatory agency. There are strong efficiency reasons for consumers to delegate monitoring and supervision to a specialist agency to act on their behalf as the transaction costs for the consumers are lowered by such delegation (Llewellyn, 1999). However, this is not to argue that a regulatory agency should become a monopolist monitor and supervisor of financial firms.

In practice, in countries that have recently experienced banking crises “some form of supervisory failure was a factor in almost all the sample countries” (Lindgren, Garcia and Saal, 1996). In many countries supervisory agencies did not enforce compliance with regulations (Reisen, 1998). In Korea and Indonesia in particular, banks did not comply with regulatory capital adequacy requirements or other regulations (UNCTAD, 1998). In particular, connected lending restrictions were not adequately supervised partly because of political pressure and the lack of transparency in the accounts of banks and their corporate customers.

In many recent crisis countries there has often been a lack of political will on the part of supervisory

agencies to exercise strong supervision. This may be associated with adverse incentive structures faced by politicians and others who may gain from imprudent banking (Fink and Haiss, 2000). While prudent banking is a public good, hazardous behaviour can be beneficial to some individual stakeholders. Others have noted the lack of political will to exercise strong supervision in the transitional economies of Eastern Europe (Baer and Gray, 1996).



3.3 Incentive structures

The maintained theme of this paper is that the incentive structures and moral hazards faced by decision-makers (bank owners and managers, lenders to banks, borrowers and regulators) are central parts of the *regulatory regime*. The issue is two-fold: there need to be appropriate internal incentives for management to behave in appropriate ways, and the regulator has a role in ensuring internal incentives are compatible with regulatory objectives. Overall, we need to know more about incentive structures within financial firms and whether, for instance, incentive structures align with compliance. Research is also needed into how regulation impacts positively and negatively on incentives within regulated firms. We have already alluded to the possibility that detailed rules may have the negative effect of blunting compliance incentives.

Within the *regulatory regime* paradigm, a central role for regulation is to create appropriate incentives within regulated firms so that the incentives faced by decision-makers are consistent with financial stability. At the same time, regulation needs to avoid the danger of blunting the incentives of other agents (e.g. rating agencies, depositors, shareholders, debt-holders) that have a potential disciplining role with banks. The position has been put well by Schinasi, Drees and Lee (1999):



“Policy makers are therefore faced with the difficult challenge of balancing efforts to manage systemic risk against efforts to ensure that market participants bear the costs of imprudent risk taking and have incentives to

behave prudently”. They argue that banks have complex incentive structures. There are internal incentives that motivate key decision-makers involved with risk, corporate governance mechanisms (such as accountability to shareholders), an external market in corporate control, market disciplines which may affect the cost of capital and deposits, and accountability to bank supervisors. The presence of regulation and official supervision overlays the structure of incentives faced by bank decision-makers.

If incentive structures are hazardous, regulation will always face formidable obstacles. There are several dimensions to this in the case of banks: the extent to which reward structures are based on the volume of business undertaken, the extent to which the risk characteristics of decisions are incorporated into personal reward structures, the nature of internal control systems within banks, internal monitoring of the

decision-making of loan officers, the nature of profit-sharing schemes and the extent to which decision-makers also share in losses etc. Internal reward systems based on short-term profits can also be hazardous as they may induce managers to pay less attention to the longer-term risk characteristics of their decisions. High staff turnover, and the speed with which officers are moved within the bank, may also create incentives for excessive risk-taking. A similar effect can arise through the herd-behaviour that is common in banking. In the case of the Barings collapse, managers who were supposedly monitoring the trading activity of Leeson also benefited through bonuses derived from the profits he was making for the bank. Dale (1996) suggests that profit-related bonuses were an important feature in the Barings collapse.

It is clear that some incentive structures may lead to dysfunctional behaviour (Prendergast, 1993). This may often emerge when incentives within regulated firms relate to volume which create a bias towards writing business. Bank managers may be rewarded by the volume of loans, not by their risk-adjusted profitability. Many cases of bank distress have been associated with inappropriate incentive structures creating a bias in favour of balance sheet growth and with moral hazard created by anticipated lender-of-last-resort actions (Llewellyn, 2000).

Given that incentives for individuals are never fully aligned with the objectives of the bank, there need to be external pressures on managers to encourage adequate internal control systems to be established. Several procedures, processes and structures can, for instance, reinforce internal risk control mechanisms. These include internal auditors, internal audit committees, proce-

dures for reporting to senior management (and perhaps to the supervisors) and making a named board member of financial firms responsible for compliance and risk analysis and management systems. In some countries the incentive on bank managers has been strengthened by a policy of increased personal liability for bank directors and bank directors being personally liable in cases involving disclosure of incomplete or erroneous information. The Financial Services Authority in the UK has also proposed that individual directors and senior managers of financial firms should, under some circumstances, be made personally liable for compliance failures.

The form and intensity of supervision can differentiate between regulated institutions according to their relative risk and the efficiency of their internal control mechanisms (Goodhart, Hartmann, Llewellyn, Rojas-Suarez and Weisbrod, 1998). Supervisors can strengthen incentives by, for instance, relating the frequency and intensity of their supervision and inspection visits (and possibly rules) to the perceived adequacy of the internal risk control procedures and compliance arrangements. In addition, regulators can create appropriate incentives by calibrating the external burden of regulation (e.g. number of inspection visits, allowable business etc.) to the quality of management and the efficiency of internal incentives. Evans (1999) suggests several routes through which incentive structures can be improved: greater disclosure by financial institutions, subjecting local banks to more foreign competition, ensuring a closer alignment of *regulatory* and *economic* capital, greater use of risk-based incentives by supervisors and lower capital adequacy requirements for banks headquartered in jurisdictions which

comply with the BIS' core principles of supervision.

With respect to prudential issues, capital requirements should be structured so as to create incentives for the correct pricing of absolute and relative risk. In this area in particular, the potential for regulation to create perverse incentives and moral hazard is well-established. The basic problem is that if regulatory capital requirements do not accurately map risks then banks are encouraged to engage in regulatory arbitrage. For instance, if differential capital requirements are set against different types of assets (e.g. through applying differential risk weights), the rules should be based on actuarial calculations of relative risk. If risk weights are incorrectly specified, perverse incentives may be created for banks because the implied capital requirements are either more or less than justified by true relative risk calculations. A critique of the currently-enforced Basel capital arrangements is that risk weights bear little relation to the relative risk characteristics of different assets, and the loan book largely carries a uniform risk weight even though the risk characteristics of different loans within a bank's portfolio vary considerably. The current Basel Committee's consultation paper seeks to address this issue (Basel Committee, 2001).



3.4 Market discipline

The fourth component of the *regulatory regime* relates to the arrangements for market discipline on banks. The central theme is that regulation can never be an alternative to market discipline. On the contrary, market discipline needs to be reinforced

within the regime and is one of the three pillars in the proposed new Basel capital adequacy regime. A starting point is that, as noted by Lang and Robertson (2000), the existence of deposit insurance creates a large class of debt-holders who have no incentive to engage in costly monitoring of banks.

Monitoring is not only conducted by official agencies whose specialist task it is. In well-developed regimes, the market has incentives to monitor the behaviour of financial



firms. The disciplines imposed by the market can be as powerful as any sanctions imposed by official agencies. The disciplining role of the markets (including the interbank market) was evidently weak in the crisis countries of

South-east Asia in the 1990s. This was due predominantly to the lack of disclosure and transparency of banks, and to the fact that little reliance could be placed on the quality of accountancy data provided in bank accounts. In many cases standard accountancy and auditing procedures were not applied rigorously, and in some cases there was wilful misrepresentation of the financial position of banks and nonfinancial companies. This is not an issue for less developed countries alone. For instance, Nakaso et al. (2000) argue that market discipline did not operate efficiently in Japan due largely to insufficient financial infrastructure (weak accountancy rules, inadequate disclosure etc.).

Market discipline works effectively only on the basis of full and accurate information disclosure and transparency. Good quality, timely and relevant information needs to be available to all market participants and regulators so that asset quality,

creditworthiness and the condition of financial institutions can be adequately assessed.

Several parties are potentially able to monitor the management of banks and other financial firms: owners, bank depositors and customers, rating agencies, official agencies and other banks in the market. In practice, excessive emphasis has been given to official agencies. The danger is that a monopoly monitor is established with many of the standard problems associated with monopoly power. There may even be adverse incentive effects in that, given that regulatory agencies conduct monitoring and supervision on a delegated basis, the incentive for others to conduct monitoring may be weakened.

In the interests of an effective and efficient regulatory regime, the role of all potential monitors (and notably the market) needs to be strengthened, with greater incentives for other parties to monitor financial firms in parallel with official agencies. An advantage of increasing the number of agents who monitor banks is that it removes the inherent danger of having monitoring and supervision conducted by a monopolist with less than perfect and complete information. A monopolist supervisor may also have a different agenda than the maintenance of financial stability. It has been noted that "(b)roader approaches to bank supervision reach beyond the issues of defining capital and accounting standards, and envisage co-opting other market participants by giving them a greater stake in bank survival. This approach increases the likelihood that problems will be detected earlier ... (it involves) broadening the number of those who are directly concerned about keeping the banks safe and sound" (Caprio and Honohan).

The issue is not about market *versus* agency discipline, but the mix of all aspects of monitoring, supervision and discipline. In its recent consultation document on capital adequacy the Basel Committee recognised that supervisors have a strong interest in facilitating effective market discipline as a lever to strengthen the safety and soundness of the banking system. It argues that “market discipline has the potential to reinforce capital regulation and other supervisory efforts to promote safety and soundness in banks and financial systems. Market discipline imposes strong incentives on banks to conduct their business in a safe, sound and efficient manner”.

Some analysts (e.g. Calomiris, 1997) are sceptical about the power of official supervisory agencies to identify the risk characteristics of banks compared with the power and incentives of markets. Along with others,¹⁾ he has advocated banks being required to issue a minimum amount of subordinated and uninsured debt as part of the capital base. Holders of subordinated debt have an incentive to monitor the risk-taking of banks.

While market discipline is potentially powerful, it has its limitations and Bliss and Flannery (2000) argue that there is no strong evidence that equity and debt-holders affect managerial decisions. This means that, in practice, it is unlikely to be an effective complete alternative to the role of official regulatory and supervisory agencies:

- Markets are concerned with the private costs of a bank failure and reflect the risk of this in market prices. The social cost of bank failures, on the other hand, may exceed the private

cost (Llewellyn, 1999) and hence the total cost of a bank failure may not be fully reflected in market prices.

- The cost of private monitoring and information collection may exceed the benefits.
- Market disciplines are not effective in monitoring and disciplining public sector banks.
- “Free-rider” problems may emerge.
- In many countries, there are limits imposed on the extent to which the market in corporate control (the takeover market) is allowed to operate. In particular, there are often limits, if not bars, on the extent to which foreign institutions are able to take control of banks, even though they may offer a solution to undercapitalised institutions.
- The market is able to efficiently price bank securities and inter-bank loans only to the extent that relevant information is available, and in many cases the necessary information is not available. Disclosure requirements are, therefore, an integral part of the market disciplining process.
- It is not self-evident that market participants always have the necessary expertise to make risk assessment of complex, and sometimes opaque, banks. In addition, there are some areas within a bank (e.g. its risk analysis and control systems) where disclosure is not feasible.
- In some countries, the market in debt of all kinds (including securities and debt issued by



1 Including Evanoff and Wall (2000), who present a detailed set of proposals for the implementation of a subordinated debt rule.

- banks) is limited, inefficient and cartelised although market discipline can also operate through interbank and swaps markets.
- When debt issues are very small it is not always economic for rating agencies to conduct a full credit rating on a bank.

While there are clear limitations to the role of market discipline,¹⁾ the global trend is in the direction of placing more emphasis on market data in the supervisory process. The theme being developed is not that market monitoring and discipline can effectively replace official supervision, but that it has a powerful role which should be strengthened within the overall *regulatory regime*. The recent consultative document issued by the Basel Committee on Banking Supervision (Basel Committee, 2001) incorporates the role of market discipline as one of the three pillars of a proposed new approach to banking supervision. The Committee emphasises that its approach “will encourage high disclosure standards and enhance the role of market participants in encouraging banks to hold adequate capital”.

3.5 Intervention

A key component of the *regulatory regime* is the nature, timing and form of intervention by regulatory agencies in the event of financial distress within a bank.

The closure of an insolvent or, under a Structured Early Intervention and Resolution (SEIR) regime, a near-insolvent bank, can impose a powerful discipline on the future behaviour of banks. Such “creative destruction” has a positive dimension. However, “closure” does not necessarily mean that, even in the absence of deposit insurance, depos-

itors lose. Nor is it necessary for bank-customer relationships and information sharing to be destroyed. As with the bankruptcy of any company, there is always some residual value within an insolvent bank. Bank closure may simply mean a change in ownership of a bank and the imposition of losses on equity holders. In most countries, “bank closure” has not meant the destruction of the bank. Thus, Barings was purchased by ING Bank. In many instances, regulatory authorities have brokered a change in ownership of insolvent banks while imposing losses on shareholders. The skill in intervention that leads to the “closure” of an institution lies in ensuring that what remains of value is maintained.

Intervention arrangements are important not the least because they have incentive and moral hazard effects which potentially influence future behaviour by banks and their customers. These arrangements may also have important implications for the total cost of intervention (e.g. initial forbearance often has the effect of raising the eventual cost of subsequent intervention) and the distribution of those costs between taxpayers and other agents. Different intervention arrangements also have implications for the future efficiency of the financial system in that, for instance, forbearance may have the effect of sustaining inefficient banks and excess capacity in the banking sector.

The issue focuses on when intervention is to be made. The experience of banking crises in both developed and developing countries indicates that a well-defined strategy for responding to the possible insolvency of financial institutions is needed. A response strategy in the

¹ The limitations to the role of market discipline are discussed further in Lane (1993).

event of bank distress has three key components:

- taking prompt corrective action to address financial problems before they reach critical proportions;
- being prepared to close insolvent financial institutions while nevertheless not destroying what value remains;
- the closing of unviable institutions and vigorously monitoring of weak and/or restructured institutions.

A key issue relates to rules *versus* discretion in the event of bank distress: the extent to which intervention should be circumscribed by clearly-defined rules (so that intervention agencies have no discretion about whether, how and when to act), or whether there should always be discretion simply because relevant circumstances cannot be set out in advance. The obvious *prima facie* advantage for allowing discretion is that it is impossible to foresee all future circumstances and conditions for when a bank might become distressed and close to (or actually) insolvent. It might be judged that it is not always the right policy to close a bank in such circumstances.

However, there are strong arguments against allowing such discretion and in favour of a more of less formal rules approach to intervention. Firstly, it enhances the credibility of the intervention agency in that market participants, including banks, have a high degree of certainty that action will be taken. Secondly, allowing discretion may increase the probability of forbearance, which usually eventually leads to higher costs when intervention is finally made. Kane (2000), for instance, argues that officials may forbear because they face different incentives from those of the market: their own welfare, the interests of the agency they repre-

sent, political interests, reputation, future employment prospects etc. Perhaps less plausibly, he also argues that, under some circumstances, the present generation of taxpayers may believe they can shift the cost of resolution to future generations. It also guards against the regulator effectively “gambling for resurrection”. Thirdly, and this was relevant in some countries which recently experienced banking distress, it removes the danger of undue political interference in the disciplining of banks and regulated firms. Experience in many countries indicates that supervisory authorities face substantial pressure to delay action and intervention. Fourthly, and related to the first, a rules approach to intervention is likely to have a beneficial impact on *ex ante* behaviour of financial firms.

A rules-based approach, by removing any prospect that a hazardous bank might be treated leniently, has the advantage of enhancing the incentives for bank managers to manage banks prudently so as to reduce the probability of insolvency (Glaessner and Mas, 1995). In this sense, a rules-based approach may be of assistance to the intervention agency as its hands are tied and it is forced to do what it believes to be the right thing.

Put another way, time-inconsistency and credibility problems should be addressed through precommitments and graduated responses with the possibility of overrides. Many analysts have advocated various forms of predetermined intervention through a general policy of SEIR. There is a case for a graduated-response approach since, for example, there is no ma-



gical capital ratio below which an institution is in danger and above which it is safe. Other things equal, potential danger gradually increases as the capital ratio declines. This in itself suggests that there should be a graduated series of responses from the regulator as capital diminishes. No single dividing line should trigger action but there should be a series of such trigger points with the effect of going through any one of them being relatively minor, but the cumulative effect being large. An example



of the rules-based approach is to be found in the Prompt Corrective Action (PCA) rules in the US. These specify graduated intervention by the regulators with predetermined responses triggered by capital thresholds. In fact, several countries have such rules of intervention (Basel Committee, 1999). SEIR strategies can, therefore, act as a powerful incentive for prudent behaviour.

The need to maintain the credibility of supervisory agencies creates a strong case against forbearance. The overall conclusion is that there should be a clear bias (though not a bar) against forbearance when a bank is in difficulty. While there should be a strong presumption against forbearance, and that this is best secured through having clearly-defined rules, there will always be exceptional circumstances when it might be warranted in the interests of systemic stability. However, when forbearance is exercised the regulatory agency should, in some way or

another, be made accountable for its actions.

A useful case study is to be found in the example of Finland, where strict conditions were imposed in the support programme. These are summarised by Koskenkylä (2000) as:

- support was to be transparent and public;
- the attractiveness of public funding of the programme was to be minimised;
- the owners of supported banks were, where possible, to be held financially responsible;
- the terms of the programme were to support the efficiency of the banking system and the promotion of necessary structural adjustments within the system;
- the potential impact on competitive distortions were to be minimised;
- banks receiving support were to be publicly monitored;
- the employment terms of bank directors were to be reasonable and possible inequities removed.

It is also the case that some bank directors and managers in Finland have been held financially liable for hazardous behaviour (see Halme, 2000).

3.6 Corporate governance

In the final analysis, all aspects of the management of financial firms (including compliance) are ultimately corporate governance issues. This means that, while shareholders may at times have an incentive to take high risks, if a financial firm behaves hazardously it is, to some extent, a symptom of weak corporate governance. This may include, for instance, a hazardous corporate structure for the financial firm, interconnected lending within a closely-related group of companies,

lack of internal control systems, weak surveillance by (especially non executive) directors and ineffective internal audit arrangements which often includes serious underreporting of problem loans. Corporate governance arrangements were evidently weak and underdeveloped in banks in many of the countries that have recently experienced bank distress.

A particular feature of corporate governance relates to cross-shareholdings and interconnected lending within a group (Falkena and Llewellyn, 2000). With respect to Japan, Nakaso et al. (2000) note that such cross-shareholdings, which have long been a feature of Japanese corporate structures, increased during the "bubble era" that preceded the banking crisis. In some cases, banks sold capital to companies (in order to raise their capital-asset ratios) and at the same time purchased stock in the companies. Several problems arise in cross-shareholding arrangements: Credit assessment may be weak; the mix of debt and equity contracts held by banks may create conflicts of interest; when equity prices fall, banks simultaneously face credit and market risk; and banks often counted unrealised gains as capital even when in practice they could not be realised.

There are several reasons to suggest that corporate governance arrangements operate differently with banks than with other types of firms. Firstly, banks are subject to regulation, which adds an additional dimension to corporate governance arrangements. Secondly, banks are also subject to continuous supervision and monitoring by official agencies. This has two immediate implications for private corporate governance: Shareholders and official agencies are to some extent duplicating monitoring activity, and

the actions of official agencies may have an impact on the incentives faced by other monitors, such as shareholders and even depositors. However, official and market monitoring are not perfectly substitutable. Thirdly, banks have a fiduciary relationship with their customers (e.g. they are holding the wealth of depositors) which is rare with other types of firms. This creates additional principal-agent relationships (and potentially agency costs) with banks that generally do not exist with nonfinancial firms.

A fourth reason why corporate governance mechanisms are different in banks is that there is a systemic dimension to banks. Because in some circumstances (e.g. the presence of externalities) the social cost of a bank failure may exceed the private costs, there is a systemic concern with the behaviour of banks that does not exist with other companies. Fifthly, banks are subject to safety-net arrangements that are not available to other companies. This has implications for incentive structures faced by owners, managers, depositors and the market with respect to monitoring and control.

All these considerations have an impact on the two general mechanisms for exercising discipline on the management of firms: internal corporate governance and the market in corporate control. Prowse (1997) shows that accountability to shareholders, and the effectiveness of board monitoring, is lower in banks than in nonfinancial firms. A key issue noted by Flannery (1998) is that little is known about how the two governance systems (regulation and private) interact with each other and, in particular, the extent



to which they are complementary or offsetting.

A key issue in the management of banks is the extent to which corporate governance arrangements are suitable and efficient for the management and control of risks. In the UK, the FSA has argued as follows: "Senior management set the business strategy, regulatory climate, and ethical standards of the firm Effective management of these activities will benefit firms and contribute to the delivery of the FSA's statutory



objectives". Corporate governance arrangements include issues of corporate structure, the power of shareholders to exercise accountability of managers, the transparency of corporate structures, the authority and power of directors, internal audit arrangements, and lines of accountability of managers. In the final analysis, shareholders are the ultimate risk-takers, and agency problems may induce managers to take more risks with the bank than the owners would wish. This in turn raises issues about what information shareholders have about the actions of the managers to which they delegate decision-making powers, the extent to which shareholders are represented on the board of directors of the bank, and the extent to which shareholders have power to discipline managers.

Corporate governance arrangements need to provide for effective monitoring and supervision of the risk-taking profile of banks. These arrangements need to provide for, inter alia, a management structure with clear lines of accountability, independent non executive directors on the board, an independent audit committee, the four-eyes principle

for important decisions involving the risk profile of the bank, a transparent ownership structure, internal structures that enable the risk profile of the firm to be clear, transparent and managed and the creation and monitoring of risk analysis and management systems. There would also be advantage in having a board director being responsible for the bank's risk analysis, management and control systems. Some bank ownership structures also produce ineffective corporate governance. Particular corporate structures (e.g. when banks are part of larger conglomerates) may encourage connected lending and weak risk analysis of borrowers. This was the case in a significant number of bank failures in the countries of South-east Asia and Latin America. Some corporate structures also make it comparatively easy for banks to conceal their losses and unsound financial position.

The Basel Committee has appropriately argued that effective oversight by a bank's board of directors and senior management is critical. It suggests that the board should approve overall policies of the bank and its internal systems. It argues in particular that "lack of adequate corporate governance in the banks seems to have been an important contributory factor in the Asian crisis. The boards of directors and management committees of the banks did not play the role they were expected to play" (Basel Committee, 2001). According to the Committee, good corporate governance includes:

- establishing strategic objectives and a set of corporate values that are communicated throughout the banking organisation;
- setting and enforcing clear lines of responsibility and accountability throughout the organisation;

- ensuring that board members are qualified for their positions, have a clear understanding of their role in corporate governance and are not subject to undue influence from management or outside concerns;
 - ensuring there is appropriate oversight by senior management;
 - effectively utilising the work conducted by internal and external auditors;
 - ensuring that compensation approaches are consistent with the bank's ethical values, objectives, strategy and control environment;
 - conducting corporate governance in a transparent manner.
- An interesting possibility is the extent to which weak corporate governance arrangements result from moral hazard associated with official regulation and supervision: a further possible negative tradeoff within the *regulatory regime*. It could be that the assumption that regulatory authorities impose regulation and monitor banks reduces the incentive for non executive directors and shareholders to do so. The presumption may be that regulators have more information than do non executive directors and shareholders, and that their own monitoring would only be wastefully duplicating what is being conducted by official supervisors.
- related firms, and how regulation might have a beneficial impact on such structures.
 - Market discipline and market monitoring of financial firms need to be strengthened within the overall regime.
 - Greater differentiation between banks and different types of financial business.
 - Less emphasis to be placed on detailed and prescriptive rules and more on internal risk analysis, management and control systems.
 - More emphasis needs to be given to monitoring and supervising risk management and control systems and to recasting the nature and functions of external regulation away from generalised rule-setting towards establishing incentives and sanctions to reinforce such internal control systems.
 - Corporate governance mechanisms for financial firms need to be strengthened so that, for instance, owners play a greater role in the monitoring and control of banks and compliance issues are identified as the ultimate responsibility of a nominated main board director.

4 Shifts within the regulatory regime

Drawing together some of the earlier themes, several shifts within the *regulatory regime* are recommended in order to maximise its overall effectiveness and efficiency:

- Less emphasis to be given to formal and detailed prescriptive rules dictating the behaviour of regulated firms.
- A greater focus to be given to incentive structures within regu-

4.1 Recent trends

in regulatory practice

Space precludes a detailed review of how regulatory arrangements have been evolving in practice. However, in some areas substantial changes have been made and others are in the pipeline. This section briefly considers some of the trends that are emerging with respect to the international approach to the prudential regulation and supervision of banks. While the Basel Committee would not necessarily adopt the paradigm of the *regulatory regime* outlined earlier, there are some shifts

in approach along the lines outlined in this paper.

Four criteria may be applied when judging the efficiency and effectiveness of capital adequacy regulation: (1) Does it bring *regulatory capital* into line with economic capital? (2) Does it create the correct risk-management incentives for owners and managers of banks? (3) Does it produce the correct internal allocation of capital as between alternative risk assets and therefore the correct pricing of risk? (4) To what extent does it create moral hazard?

4.2 BIS approach to capital adequacy

The problems with the current BIS capital adequacy regime (1988 Accord) are well established and are not repeated here. Partly because of these weaknesses, the Basel Committee on Banking Supervision has proposed a new framework for setting capital adequacy requirements (Basel Committee, 2001).

It is not proposed to discuss the new Accord in detail here other than to note that it is based on three central pillars: Minimum Capital Requirements (which will set new capital requirements for credit risk and an operational risk charge), a Supervisory Review Process (which will require supervisors to take intervention action if a bank's risk profile is high relative to capital held), and an enhanced role for market discipline which will require more information disclosure by banks. As described in Jackson (2001), the Supervisory Review (Pillar 2 of the new Accord) is based on four interlocking principles: (1) banks will be required to have processes for assessing their capital requirements in relation to their risk profile; (2) their processes will be evaluated by supervisors; (3) banks

will be expected to operate with capital above minima set in Pillar 1; and (4) supervisors should intervene at an early stage to prevent capital from falling below the level required to support the bank's risk characteristics. The last-mentioned is a move in the direction of SEIR.

A major feature of the proposed approach to capital adequacy is that it will be more risk-sensitive with the objective of aligning *economic* and *regulatory* capital more precisely by making regulatory capital requirements more accurately reflect the actual risks of banks. In addition, the range of risks to be covered will be widened including setting capital adequacy requirements for operational risk.

The proposed Basel Capital Accord can be viewed in terms of the *regulatory regime* paradigm outlined in this paper:

- Substantial emphasis is to be given to the importance of banks developing their own risk analysis, management and control systems, and it is envisaged that incentives will be strengthened for this. In some cases (i.e. those banks with sophisticated risk analysis systems), this will enable banks to apply their own methodologies for calculating risk and the required capital backing (a move in the direction of *contract regulation*). The Committee notes that "capital should not be regarded as a suitable substitute for addressing fundamentally inadequate control or risk management processes" (Basel Committee, 2001).
- The Committee's consultative paper stresses the important role of supervision in the overall regulatory process. The Supervisory Review Process will mean that supervisors must ensure that banks have sound internal risk

analysis and management systems to assess capital adequacy. This will require a high standard of sophistication on the part of bank supervisors if they are to be able to assess banks' systems. This in turn has implications for the training and qualifications of bank supervisors. This second pillar of the capital adequacy framework will "seek to ensure that a bank's capital position is consistent with its overall risk profile and strategy and, as such, will encourage early *supervisory intervention*" (italics added). This represents a step towards SEIR.

- In an attempt to bring regulatory capital more into alignment with economic capital, it is proposed to widen the range of risk weights and to introduce weights greater than unity. Risk weights to be applied will be refined by reference to a rating provided by an external credit assessment institution (such as a rating agency) that meets strict standards. A wider range of risks are to be covered, including legal, reputation and operational risk.
- Capital requirements are to take into account the volatility of risks and the extent to which risks are diversified.
- Two alternative approaches to assessing credit risk for purposes of defining required capital will be applied: a Standardised Approach (similar to the current arrangement with the addition of more risk weights) and an internal ratings-based (IRB) approach (which will allow banks to use their own internal models). Although a modified form of the current accord will remain as the "standardised" approach, the Committee believes that, for some sophisticated banks, the use of internal

and external credit ratings should be incorporated, and also that portfolio models of risk could contribute towards aligning economic and regulatory capital requirements. The IRB approach will not rely on predetermined supervisory risk weights. Banks will be able to input their own assessment of the probability of default associated with each borrower. As noted by Jokivuolle and Kauko (2001), "the IRBA is expected to be pursued by the more sophisticated institutions and it is intended to pave the way for the ultimate acceptance of the use of banks' own credit risk portfolio models in determining regulatory capital". These assessments will be derived from banks' historical data of individual loan categories, rating agencies, or other external industry sources, and they must meet "robust supervisory standards". In practice, while banks will slot loans into buckets according to the internal ratings, the capital requirements for each bucket will be set by Basel. The object is to bring the regulatory process more into line with the way banks undertake risk assessment. However, the Committee does not believe that portfolio models of risk can be used in the foreseeable future. Nevertheless, over time, the Committee states that it would like to see more banks moving from the "standardised" approach to the IRB approach and also that, within the IRB approach, banks will shift from the "foundation" to the "advanced" approaches as



their risk management capabilities develop.

- The Committee recognises that the use of internal ratings is likely to incorporate information about customers that is not available either to regulators or external rating agencies. In effect, in some respects this would involve asking banks themselves what they believe their capital should be. This is a move at least in the direction of precommitment.
- Allowance is to be made for risk-mitigating factors such as the use of derivatives contracts to the extent that they are applied to reduce or shift risk.
- Greater emphasis is to be given to the role of market discipline, which is the third pillar in the proposed new approach. It will encourage high standards of transparency and disclosure standards and “enhance the role of market participants encouraging banks to hold adequate capital”. It is envisaged that market discipline should play a greater role in the monitoring of banks and the creation of appropriate incentives. The Committee has recognised that supervisors have a strong interest in facilitating effective market discipline as a lever to strengthen the safety and soundness of the banking system. This will require more information disclosure by banks, and regulators will specify the precise detail of information disclosure.
- The proposals also include the possibility of external credit assessments in determining risk weights for some types of bank assets. This would enhance the role of external rating agencies in the regulatory process. The Committee also suggests there

could usefully be greater use of the assessment by credit rating agencies with respect to asset securitisation made by banks.

- The principle is established that supervisors should intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank, and should require remedial action if capital is not maintained or restored.
- The consultation document gives some emphasis to the important role that shareholders have in monitoring and controlling banks.

Overall, the new approach being proposed by the Basel Committee envisages more differentiation between banks, a less formal reliance on prescriptive rules, elements of choice for regulated institutions, an enhanced role for market discipline, a greater focus on risk analysis and management systems, some degree of precommitment, and a recognition that incentives for prudential behaviour have an important role in the overall approach to regulation. The new approach would create powerful incentives for banks to improve their risk analysis and management methods and to develop their own estimates of economic capital. Equally, there would be powerful incentives for supervisors to develop and enhance their monitoring skills (Stephen and Fischer, 2000).

5 Assessment

This paper has introduced the concepts of *regulatory regime* and *regulatory strategy*. Seven components of the regime have been identified: each are important but none alone is sufficient for achieving the objectives of regulation. They are complementary and not alternatives. Regulatory strategy is ultimately about optimis-

ing the outcome of the overall regime rather than any one of the components. Regulators need to consider that, if regulation is badly constructed or taken too far, there may be negative impacts on other components to the extent that the overall effect is diluted. However, there may also be positive relationships between the components, and regulation can have a beneficial effect on incentive structures within financial firms.

Regulation and supervision of banks and financial institutions has the potential to make a significant contribution to the stability and robustness of a financial system. However, there are limits to what regulation and supervision can achieve in practice. Although regulation is an important part of the *regulatory regime*, it is only a part and the other components are equally important. In the final analysis, there is no viable alternative to placing the main responsibility for risk management and general compliance on the shoulders of the management of financial institutions. Management must not be able to hide behind the cloak of regulation or pretend that, if regulation and supervisory arrangements are in place, this absolves them from their own responsibility. Nothing should ever be seen as taking away the responsibility of supervision of financial firms by shareholders, managers and the markets.

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Financial Supervision: The EU Approach

Introduction

The debate about the “optimal” structure for the supervision of the financial sector has moved to the top of the agenda over the recent years, as evidenced by changes in the supervisory architecture of several countries. The model of the single integrated supervisory authorities – with competence over banking, investment and insurance activities – has spread from the Scandinavian area and has inspired the reform of supervisory structures in several countries. The UK Financial Services Authority (FSA) was established in 1998, and the creation of an integrated authority has been or is on the agenda in Ireland and Germany.

In several other countries, steps have been taken to strengthen co-operation between the existing supervisory bodies. In the Netherlands, a Council of Financial Supervisors was established in 1999 to supplement the existing forms of co-operation between the three supervisory authorities. In France, co-operation between the different authorities has also been strengthened.

On several occasions, these reforms also entailed a redefinition of the articulation between the supervisory and central banking functions. The debate on the organisation of supervision at domestic level is not specific to the EU. There have been similar reforms in third countries, e.g. a single integrated supervisor has been established in Japan. Australia has adopted an objective-based supervisory architecture with a distinction between prudential supervision, market integrity and systemic stability. In April 2000, Estonia announced the creation of an integrated supervisory agency.



The issue of supervisory structures takes particular relief at EU level, in the context of the single market for financial services, which has paved the way for cross-border financial activities. Monetary union is also widely perceived as a catalyst to the integration and consolidation of the financial services industry.

The guiding thread of my speech will be formed by the question: What actions should be undertaken to ensure that the regulatory and supervisory framework for financial services meet the challenge of integration and cope with developments in industry and supervisory practices?

My argumentation will be structured along the following lines:

- What are the main features of the EU supervisory architecture?
- What are the challenges to the current framework?
- What has been the contribution of the Commission to a more effective supervision and regulation of financial services?

I The EU institutional framework and the emphasis on cross-border co-operation between supervisory authorities

Supervision of the financial services industry in the EU has traditionally been organised along national and sectoral lines. The legal infrastructure for the single market for financial services does not aim to harmonise supervisory structures across the EU. Rather, the “founding” directives for the single market lay the foundations for an effective co-operation between the different authorities involved in the supervision of financial groups. The intensity of the co-operation is reflected in the success of Memoranda of Understanding (MOU) between EU supervisors. Sectoral committees also play a pivotal role in designing the regulatory framework and promoting co-operation between supervisors.

1.1 The EU framework lays down the conditions for co-operation and information sharing between supervisory authorities

The “founding” directives for the single market in the banking, investment and insurance sector provide for the harmonisation of the conditions to grant a license to credit institutions, investment firms and insurance undertakings. They also identify the relevant information to be exchanged between home and host country supervisory authorities whenever a regulated institution wants to establish a branch or provide services in another Member State. The “founding” directives put the emphasis on the co-operation between the home supervisor and the host supervisor.

The expansion of internationally active groups has called for more

intensive forms of co-operation, to achieve an effective group-wide supervision. The legislative framework for consolidated supervision in the banking/investment sector (Consolidated Supervision Directive) and for solo plus supervision in the insurance sector (Insurance Group Directive) provides for the exchange of information between the different authorities involved.

EU legislation gradually removed the legal obstacles to information sharing between relevant bodies. In particular, Community provisions allow national banking supervisory authorities to transmit to monetary authorities or overseers of payment systems information intended for the performance of their task.¹⁾

The emergence of financial conglomerates has prompted an extension of the scope of supervisory information sharing. The “post BCCI” directive (95/26/EEC) puts the emphasis on cross-sectoral co-operation and lays the foundations for the exchange of confidential information between all interested parties, including auditors, deposit insurance schemes and clearing houses.

1.2 The network of MOU

The legislation for group-wide supervision has encouraged the supervisory authorities of different countries to enter into co-operative arrangements. Co-operation in day-to-day supervision as well as crisis management is facilitated by well-established channels of communication between supervisory authorities. Ex-ante agreements will flesh

out the conditions for co-operation between authorities.

A typical form of cross-border co-operation is illustrated by the network of bilateral MOU between banking supervisors, in the context of consolidated supervision.²⁾ MOU typically identify the information to be shared on a routine basis and may also pave the way for prompt circulation of information in emergency situations. They have been instrumental in promoting co-operation and can be seen as a first



step towards more intensive forms of co-operation as the cross-border integration of banking activities grows.

The recent development of cross-border mergers and takeovers has prompted the supervisory authorities to institutionalise their co-operation further and to develop a customised framework for individual groups.³⁾

Another challenge is the development of co-operation with financially significant third countries, to cope with the globalisation of the financial industry. Building upon the experience of Member States in bilateral co-operation with third countries, the Commission concluded a framework agreement with

1 See Article 30/8 of the Codified Banking Directive 2000/12/EC.

2 There are about 80 MOU.

3 A classical illustration is provided by the co-operative arrangement between Belgian and French authorities regarding the Dexia group resulting from the economic merger of *Crédit Communal de Belgique* and *Crédit Local de France*. Other examples include arrangements between Belgian and Dutch authorities to supervise cross-border conglomerates and between Scandinavian authorities about *Merita Nordbanken Unidanmark*.

the US banking authorities in 1999, to serve as benchmark for bilateral MOU between Member States and the US.

1.3 EU-wide fora for supervisory co-operation

The existence of structures where the regulatory and supervisory authorities of the financial sector can meet and exchange views regularly has proved a key ingredient in promoting a common understanding and a co-operative spirit between EU authorities.

A distinction can be made between three categories of bodies depending on their main focus:

- A first category is oriented towards legislative activity. To this category clearly belong the committees that were established by the EU sectoral directives to assist the EU Commission in preparing prudential legislation for the supervision of the financial sector, namely the Banking Advisory Committee (BAC) and the Insurance Committee (IC).

The High-Level Securities Supervisors Committee (HLSS) has served the same purpose in the securities field since 1985 (albeit with no comitology powers). The architecture of securities committees will be refurbished following the Lamfalussy Report on the regulation of securities markets. The report, which was endorsed by the Stockholm European Council, recommends that two committees be established:

- A European Securities Committee, with similar “comitology” powers as BAC and IC.
- A Committee of European Securities Regulators, with advisory function.

- A second category is dedicated to the exchange of views on supervisory practices and to the discussion of individual cases. The Groupe de Contact of the EU banking supervisors and the Conference of Insurance Supervisory Authorities are the longest-standing groups of this kind.¹⁾

In the banking sector, the Groupe de Contact is playing an important role in the convergence of supervisory review practices in the context of the revision of capital adequacy rules. In addition, a high-level Conference of banking supervisors was established in November 2000 (Copenhagen Conference) and will meet at least once a year to discuss convergence in banking supervisory practices.

Additional meetings of the Conference may be called by the chairman of the Conference (presently the supervisor from Luxembourg) if the chairman of the Groupe de Contact identifies a need for guidance. In the securities field, the more recently established Form of European Securities Commissions (FESCO) may also discuss individual cases and has been keen on promoting co-operation on enforcement and market surveillance, while also developing common standards.

The Committee of European Securities Regulators, as contemplated in the Lamfalussy Report, is expected to work towards the convergence of supervisory practices.

- A third category is primarily oriented towards the prevention of systemic risk, with a focus on “macroprudential” issues. This is the case of the Banking Supervision Committee (BSC), which was established in 1998 under the aegis of the European System

¹ The Groupe de Contact and the Conference were established in 1972 and 1958, respectively.

of Central Banks to assist in the smooth conduct of supervisory and financial stability policies. The BSC comprises banking supervisory authorities as well as central banks.

These arrangements for committees have been instrumental in fostering the co-operation within each sector. The next “frontier” is to strengthen cross-sector co-operation and to involve all relevant authorities (including central banks, overseers of payment systems, deposit insurance schemes) in the co-operation loop.

2 The challenges to the institutional architecture for financial services

The famous “adapt or die” principle also applies to the field of supervision. It is crucial that the supervisory framework meets the demands of a changing financial landscape. There are three major challenges that need to be addressed, namely conglomeration, concentration and innovations.

2.1 The emergence of financial conglomerates calls for enhanced cross-sectoral co-operation

Conglomeration has gained momentum over recent years, and several high-profile cross-sector acquisitions are changing the traditional landscape. Most of the top EU financial groups offer both banking and insurance services. Conglomeration has become a dominant feature of financial industry in certain Member States.

In Belgium and in the Netherlands, there were relatively few, albeit large acquisitions which resulted in the emergence of cross-

sector groups. One typical example is Fortis, which has developed from an insurance group into a true cross-sector and cross-border conglomerate. Another EU example of cross-sector and cross-border concentration includes the acquisition of Unidanmark by the Swedish/Finnish group Merita Nordbanken.

The emergence of cross-sectoral groups obviously calls for enhanced co-operation between supervisors of different sectors. This has motivated the recommendation in the



Report by the EU Economic and Financial Committee (EFC) on financial stability in the EU, the Brouwer Report, that cross-sector co-operation should be strengthened at international level, and that co-operation could be improved by clarifying and extending the concept of the coordinating supervisor for large financial groups domiciled in Europe.

2.2 Concentration raises the issue of systemic risk at EU level

The recent merger frenzy in the EU financial sector has resulted in the acceleration of concentration in the sector. A recent IMF study notes that the average size of the top five euro-area banking groups has doubled since 1995, and that 18 of the biggest euro-area banks are the result of recent mergers.¹⁾

It is certainly true that concentration has taken place mostly at domestic level, giving birth to

¹ *Euro-Area Banking at the Crossroads (2001).*

groups that can be seen as “national champions”. There are clear signs, however, that merger activity will spill over national borders. Such cross-border deals as Dexia, Fortis, ING-BBL, Merita-Nordbanken, could well announce a further round of cross-border acquisitions.

The emergence of pan-European “big players” has raised the concerns about their systemic impact and here we come to the issue of crisis management. Crisis at a large financial institution is likely to have cross-



border effects not least out of the integration of large-value payment systems and to involve authorities in several countries.

Not surprisingly, the framework to prevent and, if things go wrong, deal with crisis at systematically important institutions is at the core of the recently released EFC report on financial crises management. The second Brouwer Report inter alia calls for:

- the removal of any remaining legal obstacle to information sharing among supervisors, with central banks, payment systems overseers and deposit-guarantee schemes,
- the appointment of a co-ordinating supervisor for the major financial institutions, including conglomerates,
- the further development of MOU to deal with concrete crisis management issues.

2.3 Innovation in industry and supervisory practice calls for an evolutive regulatory framework

Financial markets are a blossoming field for innovations. This is epitomised by the following aspects:

- The creation of new financial instruments. There were different “waves” of new financial products:

OTC derivatives expanded dramatically over the last decade and spilled over from the management of market risk to the field of credit risk management (the so-called credit derivatives). Techniques for securitisation have gained in sophistication and complexity. The features of capital instruments have been refined to take advantage of the supervisory acceptance for Tier 1 and Tier 2 capital. All these innovations have challenged the “old” capital adequacy framework and have prompted concerns about supervisory arbitrage.

- The channels for marketing financial products are changing. Progress in e-commerce and e-banking has been substantial in all Member States, and e-banking already accounts for a significant part of retail banking in certain Member States, Scandinavian countries in particular.¹⁾

The development of new channels has prompted several authorities to update their prudential framework.

- There has been progress in risk management tools: Internal modelling was first developed for market risks in the 1990s and is now being extended to credit risk. The next “frontier” is the development of internal models for operational risk.

1 See the report by the European Central Bank (1999).

Progress in risks management techniques calls for the recognition by supervisors, but this recognition will be conditional upon the degree of confidence, and comfort supervisors may get about the reliability of these techniques. Typically, a set of qualitative and quantitative criteria will have to be laid down in the regulatory framework.

- Supervision has become more qualitative and more sophisticated, leaving more discretion to supervisory authorities.

The move towards more risk-sensitive capital requirements and the related developments in internal modelling techniques have urged supervisory authorities to develop their own skills to ensure that supervision remains up to date. For example, most authorities have created dedicated teams to deal with the more advanced approaches to risk and to provide horizontal assistance to “line” supervisors.

Equally, supervisors have put more emphasis on qualitative aspects of supervision, including risk management and disclosure. The current review of bank capital adequacy rules concentrates on both, more sophisticated “quantitative” and “qualitative” aspects of supervision: Supervisory authorities will have more leeway to fine-tune individual capital requirements following the supervisory review process (which includes an assessment of the effectiveness of risk management) and will be asked to recognise advanced internal systems on the basis of reliability standards.

These elements not only set a challenge in terms of building up resources, they also raise the issue of a potentially uneven implementation of supervisory discretion across the EU, i.e. “overzealous” supervisors might put their institutions at a competitive disadvantage com-

pared to institutions subject to “lenient” supervisors. This concern has been clearly expressed in the context of the consultation on the capital review.

The “lessons” for supervisory standard setters are clear: First the regulatory framework should be flexible enough to cope with market developments. Second, the response to the challenges of innovation should be co-ordinated at EU level, to ensure that a level playing field is maintained. Reconciling these two objectives is not necessarily easy, as past experience with the recognition of internal models for market risks has shown. You will remember that it took more than two years to amend the capital adequacy directive to recognise internal models for market risks.

To achieve these objectives, the Commission will promote a more flexible legislative approach for prudential services, as announced in its Financial Services Action Plan (FSAP). So, let us now turn to what the Commission has undertaken to foster an effective framework for financial services.

3 The Commission’s contribution to an effective framework for financial supervision

The Commission is not a supervisor of banks, investment firms or insurance companies and certainly does not pretend to become one. But it does have a general responsibility for promoting a sound supervisory framework that will contribute to reaping the benefits of the single market for financial services. This includes the initiative to set up harmonised rules at EU level and to



monitor their implementation by the Member States. Therefore, the interest of the Directorate-General Internal Market for supervisory structures should not come as a surprise.

The Commission is committed to fostering an effective structure for financial supervision. This action has taken different forms. I would like to emphasise three major aspects:

- progress in the implementation of the Financial Services Action Plan will deliver a more effective overall framework,
- the Commission has taken steps to foster cross-sector co-operation between supervisors,
- the Commission supports a more flexible legislative model for financial regulation.

3.1 There has been significant progress in the implementation of the Financial Services Action Plan

The FSAP is a comprehensive framework of inter-linked measures which will allow the EU to benefit from the single currency and an integrated financial sector. When adopted in 1999, the FSAP identified the development of state-of-the art prudential rules and supervision as one of the key objective to be achieved.

The Stockholm European Council has recently added impetus to the implementation of the FSAP. The deadlines set by the Heads of State or Government to implement the Action Plan by 2005 and to integrate European securities markets by 2003 are now firm. The Stockholm European Council endorsed the conclusions of the Lamfalussy Report on securities regulation and the prior-

ities identified in the FSAP, including the adoption of the proposed directive on the distance marketing of financial services.

Over recent months, the Commission has delivered several actions under the FSAP, including the legislative proposal for the prudential supervision of financial conglomerates in April 2001. The Commission is about to adopt two legislative proposals to foster the integration of securities markets: about prospectus, aiming to establish a single passport for European issuers, and about the prevention of market abuse. These proposals will also establish a Committee structure in the securities area.

This is encouraging, and will help concentrate resources on the priorities identified by the European Council: pension funds, e-commerce and distance marketing as well as money laundering.

3.2 Fostering cross-sectoral co-operation between supervisors

Enhancing practical arrangements for the co-operation between supervisors was one of the main recommendations from the first Brouwer Report on financial stability. The Commission has taken two main steps in that direction:

- The Commission has taken the initiative to convene a Roundtable of Regulators. This Roundtable gathers the chairpersons of the seven committees with the responsibility of the regulation/supervision of the three sectors of banking, insurance and securities.¹⁾

The primary objective is to identify current issues of interest to the

1 The Banking Advisory Committee, the Banking Supervision Committee, the Groupe de Contact, the Insurance Committee, the Conference of Insurance Supervisors, the High-Level Committee of Securities Supervisors and FESCO.

three sectors. In practical terms, participants inform each other of the work in progress in their fora in order to identify issues of common concern and to avoid duplication of effort.

There have been five meetings of the Roundtable so far. The Roundtable has been successful in co-ordinating discussions on financial conglomerates and promoting a cross-sector perspective on electronic commerce and on institution building in the accession countries.

In future, the Roundtable will probably work on the cross-sectoral dimensions of the convergence of supervisory practices, in particular in the context of the supervisory framework for financial conglomerates.

- The second step relates to day-to-day co-operation between supervisors of different sectors, the directive proposal for financial conglomerates provides for enhanced co-ordination between the different authorities involved in the supervision of conglomerates. This co-ordination should apply on a going-concern basis as well as in emergency situations.

The Commission's directive proposal requires the mandatory appointment of one or more co-ordinator(s) for any financial conglomerate. In most cases the identification of the co-ordinator(s) will be obvious, given the structure of the financial conglomerate. However, to avoid situations in which no co-ordinator is appointed, the directive lays down criteria to identify the co-ordinator(s) in the event the supervisors involved could not reach agreement amongst themselves.

The co-ordinator's task shall include:

- a) the co-ordination of gathering and dissemination of relevant or essential information in going-concern and emergency situations;
- b) the assessment of the financial situation and the overview and monitoring of the compliance with the rules on capital adequacy on risk concentration and intra-group transactions;
- c) the assessment of the financial conglomerate's structure, organisation and internal control systems;
- d) the planning and co-ordination of supervisory activities in going-concern as well as in emergency situations, in co-operation with the relevant competent authorities involved.

Of course, arrangements between supervisors may confine additional tasks to the co-ordinator. The Commission is confident that these provisions will pave the way for an enhanced co-operation and is looking forward for more comprehensive arrangements between supervisors.

3.3 Towards a more flexible legislative framework

The need for a more adaptable legislation that can cope with market developments was already noted in the FSAP. Commission services believe that the regulatory framework for financial services should meet the twin demands of speed of adoption and flexibility. A third objective, that of a consistent implementation across Member States, is crucial to level playing fields in the EU.

You are well aware of the four-level approach developed in the Lamfalussy Report for securities regulation with a distinction between

framework principles to be decided by normal EU legislative procedures (Level 1), technical rules subject to comitology procedures (Level 2), enhanced co-operation and networking among EU securities regulators to ensure the consistent and equivalent transposition of Level-1 and Level-2 legislation, and strengthened enforcement, notably with more vigorous action by the European Commission to enforce Community law, underpinned by the enhanced co-operation between the Member



States, their regulators and the private sector.

There is no doubt that the debate about the Lamfalussy approach will inform the thinking on the legislative structure for the whole arena of financial services. The Commission services had already developed their thinking last October about a multiple-layer legislative approach in the context of the review of capital adequacy rules for credit institutions and investment firms, where a three-strand structure has been envisaged. This approach is similar – but not identical – to the Lamfalussy approach to securities legislation. The structure will distinguish between the core principles (“first strand”) to be enshrined in the body of the directive and the technical rules (“second strand”) that need a more flexible approach. Future amendments to the core principles would require a full co-decision procedure, whereas amendments to the technical rules will be subject to a

comitology procedure. These two strands would be complemented by the convergence of supervisory practices. This third strand would secure consistency and coherence of implementation. The mechanisms for delivering supervisory convergence may take a variety of forms, such as recommendations and communications from the Commission, best practices developed by supervisors themselves, some form of peer group review etc.

This initiative in the context of the capital review will contribute to the implementation of the fourth recommendation of the Report on financial stability that supervisors should work towards convergence of supervisory practices. Of course, the Commission will monitor the implementation of the capital review by the Member States, with level playing fields as a primary objective. Making a more flexible approach work through targeted and up-to-date legislation is central to achieving the integration of Europe’s financial markets.

However, success will only be possible if the three institutions – the European Parliament, the European Council and the European Commission – work together, fully respecting the present institutional balance in the Treaty and the prerogatives of the institutions involved. The future legislative proposals for prospectus and for market abuses will be “test cases” for a more flexible approach.

Conclusion

Discussions this afternoon have shown that we are all in “search of excellence” in the design of a supervisory framework. We are aware that an effective – if not optimal – supervisory architecture should meet at least the three objectives of financial stability, level playing fields and flex-

ibility. And the mechanisms to deliver these objectives are well identified:

- Financial stability will depend on appropriate microprudential rules to ensure stability co-ordination between all authorities.
- Level playing fields will be achieved by a combination of the harmonisation of rules at EU level and the convergence of supervisory practices across the EU.
- Flexibility in rule making can be facilitated by a layered approach to legislation.

In all these aspects, work is progressing and going into the right direction. At the current juncture, I consider it appropriate to put the emphasis on an enhanced co-operation and closer “networking” between supervisors. This is consistent with the conclusion by the first Brouwer Report that, while no institutional change is needed, there is a need to enhance the practical functioning of current arrangements.

Over time, however, we need to ensure that the EU supervisory architecture keeps pace with the growing integration of EU financial sectors. In particular, more common high-profile cross-border mergers and the emergence of systemically

important groups from an EU perspective, together with the growing integration of EU interbank markets, might call for more integrated forms of supervision.

Supervisory integration will have to be commensurate with market integration. You are well aware of the different models that can be envisaged, ranging from central supervision of major systemically important groups – a favourite concept from a financial stability perspective – to the establishment of a single EU agency for the regulation and supervision of the whole financial sector under one roof.

You might also have in mind the “warning” that the creation of a single EU regulatory authority for financial services might be envisaged, in case the Lamfalussy approach could not be implemented successfully. It is difficult to predict the pace of integration and it is too early to tell which architecture will be most suited in ten years. But the question will arise again, sooner or later. 🐼

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Comments on
David T. Llewellyn,
“A Regulatory Regime
for Financial Stability”

Introduction

The current international system of capital regulation, originated by the Basel Committee on Banking Supervision in 1988, has been the subject of extensive skepticism over the past few years. Perhaps it is a bit surprising that this wave of criticism has been led by the Basel Committee itself. In the introduction to a new proposal (Basel Committee, 1999) the Committee expounded on the shortcomings on the 1988 Capital Accord, in particular on those shortcomings that surfaced with the introduction of numerous financial innovations in the intervening period. With the Basel Committee itself questioning the adequacy of the current regulatory structure, this is an eminently appropriate moment to reconsider the optimal framework of bank capital regulation from the ground up, as Llewellyn does in his

contribution to the Oesterreichische Nationalbank's 29th Economics Conference.

David T. Llewellyn's paper focuses neither on the existing accord nor on the revised new proposal issued by the Basel Committee (2001). Instead, the paper proposes a broad regime that overlaps with many of the elements of the new accord, while at the same time focusing on issues not explicitly in the accord. The correspondence of some elements in the new

Components of a Regulatory Regime

We begin with a review of the seven components of Llewellyn's regulatory regime. The objective is not to replicate his already clear exposition, but to emphasize aspects that will later clarify the position of each of the components in the structure of the banking system. In addition, a critical review of some of the components will bring to the fore some minor departures from Llewellyn's analysis.

In fact, we begin with a modification of Llewellyn's stated rationale for regulation, which will play a role in the subsequent analysis. Llewellyn states that regulation is necessary as a result of externalities, market imperfec-



accord and in Llewellyn's framework is clearly visible, whereas for some others the relationship is subtler.

Overall, this discussant finds little to disagree with in Llewellyn's thoughtful approach, which in a way makes the job of a discussant more difficult. Therefore, rather than attempting to criticize the approach, the principal strategy of this discussion is to provide a framework within which to examine the proposals of the paper and to identify some areas that perhaps require more attention than is devoted to them in the paper. In addition, there are a few minor issues with which it seems warranted to quibble. Thus, the rest of this comment reviews Llewellyn's proposed regime, elaborates on the structure of the banking system, considers the responsibilities of banks in the regime, and discusses Llewellyn's explicit recommendations.

tions, moral hazard arising from safety nets, and other such deviations from a perfect market. It seems clear that all of these phenomena can be used and have been used to justify bank regulation. However, it should also be clear that banks' incentives are in most cases aligned with regulatory objectives. In particular, bank owners have an incentive to preserve the charter value of the bank and bank managers have an incentive to protect their jobs and reputation. Thus, owners and managers generally share the interest of regulators in avoiding the failure of the bank. In some pathological cases, the banks' incentives may differ from those of regulators, and it is on those cases that regulation and supervision should focus.

The first component of Llewellyn's regime consists of *regulatory rules*, which constitute the most visible and best known aspect of most current regimes. These types of rules were not always

around,¹⁾ but have become commonplace with the introduction of the 1988 Basel Capital Accord and are often considered the embodiment of capital regulation worldwide.

Initially, capital rules were based on very simple ratios, such as the ratio of equity to total assets (known as the leverage ratio). These ratios subsequently became more complex (as in the 1988 Accord) and more recently (Basel Committee, 1996) have included direct measures of risk such as value at risk (var). In the new Basel Accord, regulatory rules are found mostly in Pillar 1 of the proposal. One characteristic that all these rules share is that they involve the application of a formula to a fairly standardized set of data. The relationship between the raw data and the required amount of capital is largely mechanical.

Llewellyn does not dispute the value of capital rules, but questions the balance of the weight assigned to these rules in current regulatory regimes, which seems to him excessive. This conclusion is essentially the same as that of Estrella (1998), which points to the difficulties arising from the inflexibility of a purely mechanical approach to capital regulation. For instance, mechanical regulation is not well suited to the treatment of new financial instruments, which are frequently designed to avoid the effects of the regulation itself.

Why is mechanical regulation so attractive? One reason is that it is seen to minimize the problem of regulatory moral hazard, in which supervisors may apply excessive forbearance in the face of adverse financial and economic conditions. A clear mechanical rule is seen as difficult to bypass. A second reason is

that mechanical rules seek to provide a level playing field for institutions of different types or across national boundaries. Finally, supervision-based regulation, which requires greater judgment than mechanical rules do, also requires greater sophistication on the part of supervisors and auditors.

It is unclear that any of the foregoing reasons can be used to support exclusive reliance on mechanical rules. Regulatory moral hazard is a potential problem, but it may be



addressed with simple contractual relationships that tie the supervisors' hands only in pathological cases. Second, mechanical rules do not necessarily provide a level playing field. When the same rules are applied to banks in different legal systems, different accounting systems, and different financial market structures, the results can hardly be expected to be the same. Finally, increasing the level of sophistication of supervisors seems both desirable and unavoidable.

Another reason for reliance on mechanical rules is the hope or expectation that such rules will be able to define the "correct" or "optimum" level of capital that a bank should hold. Estrella (1995) argues that the concepts of minimum capital and optimum capital are conceptually quite different, and that it can be problematical to attempt to cap-

¹ In the United States, capital rules were introduced at the federal level in 1981 and the 1988 Accord was adopted in regulation dating from 1989.

ture both in a single measure of regulatory capital.

In order to avoid the foregoing problems, Llewellyn points to the so-called pre-commitment approach to capital requirements, in which banks themselves set capital requirements based only on minimal guidance from regulators. However, it is not clear that such an approach is being pursued anywhere in the world today. In the United States, where it was first proposed, the original advocates (Kupiec and O'Brien, 1998) have since concluded that the informational requirements of the approach are so large as to make it infeasible in practice.

The foregoing extensive discussion of regulatory rules is motivated by the conviction, shared with Llewellyn, that they require less relative weight in the overall regulatory regime. The other seven elements of the regime will now be discussed more briefly.

The second element consists of *monitoring and supervision* by official authorities. This element corresponds quite clearly to Pillar 2 in the new Basel approach. Reliance on supervision is important because banks typically need to hold more capital than a mechanical minimum requirement is likely to imply, and because supervisors have the flexibility to assess the additional cushions held by banks in different circumstances.

The third element of the regime involves *incentive structures*, which may be incorporated in the laws, regulations, and corporate structures under which banks operate. As such, these elements may be found in the rules that apply to both supervisors

and banks. To a certain extent, this element overlaps with regulatory rules, but is broader in conception and application.

The fourth element is *market discipline*, which once more corresponds clearly to one of the components of the new Basel Accord, in this case to Pillar 3. One difficulty in making this an element of the regulatory regime is that it is not necessarily under the control of legal and regulatory authorities. These authorities can promote the development of market discipline and can avoid measures that may impede the proper transfer of information and functioning of the markets. However, in the final analysis, the onus of market discipline falls on market participants themselves.¹⁾

Llewellyn's fifth element is *intervention arrangements*. These arrangements can be viewed as a separate category, but they could also be subsumed in the regulatory rules, or perhaps into supervision and monitoring, as they are in the case of Pillar 2 of the new Basel Accord.

The sixth element is *corporate governance*. As in the case of market discipline, this is an element that regulators can promote and avoid impeding, but which must ultimately be implemented by the market, in this case by corporations themselves.

The seventh and final element, accountability of regulatory agencies, could well be contained in rules and monitoring, as in Pillars 1 and 2 of the Basel proposal. Llewellyn's paper does not include much discussion of this element. Perhaps his subsequent work could expand on this particular topic.

1 We note that the proposals for minimum requirements on subordinated debt, discussed extensively by Llewellyn, have been rejected in a recent report from the U.S. Federal Reserve and Treasury Department (2000). The report concluded that the proposals, in focusing mostly on the benefits of such regulation, have failed to take sufficient account of the costs of mandatory subordinated debt. A similar conclusion based on corporate finance theory is reached by Estrella (2000).

Structure of the Banking System

In order to examine the incidence of Llewellyn’s seven elements, we propose a framework for viewing the structure of the banking system. The framework contains three levels of operation. First, there are the agents who operate in the banking markets in different capacities. Among these are banks, supervisors, and investors. Second, there is the infrastructure upon which they all act. This infrastructure contains laws, regulations, and corporate structures. Third, we have the builders of the infrastructure, who design the regulatory regime, including legislatures, regulators, courts, and custom. “Custom” refers to the collection of business practices – formal and informal – that evolve over the years, and which constitute the cultural backdrop of the banking industry.

Table 1 shows the structure defined in the foregoing paragraph and locates within that structure the seven elements of Llewellyn’s regulatory regime. As a reminder, the seven elements are:

- 1. Regulatory rules,
- 2. Monitoring and supervision,
- 3. Incentive structures,
- 4. Market discipline,
- 5. Intervention arrangements,
- 6. Corporate governance, and
- 7. Accountability of regulatory agencies.

We see from the table that the distribution of the seven elements covers almost every cell in the “infrastructure” and “agents” columns. The one cell that is not explicitly covered by any of the elements is “banks” themselves. This analysis suggests that it may be useful to consider not only the elements that a regulatory regime should impose on banks, but also the responsibilities that banks should impose on themselves. Recall that we argued earlier that banks have an interest in self-preservation, derived at least in part from the desire of owners to protect charter value and of managers to protect their jobs and reputations. If so, banks can and should take certain measures to contribute to the effectiveness of the regulatory regime. In the next section, we consider some steps that they can take in this regard.

Responsibilities of Banks

A simple way of defining banks’ own role in the regulatory regime is provided by Pillar 2 of the new Basel proposal, which focuses on the Supervisory Review Process. Even though the stated objective of that section of the proposal is to look at supervision, it establishes some clear guidelines for banks themselves to follow. The following principles are quoted from the Pillar 2 document.

The supervisory review process is based on four key principles:

Table 1

Banking System and Location of the Seven Elements of Llewellyn’s Regime		
Builders	Infrastructures	Agents
Legislatures	Laws 1., 3., 5., 7.	Banks —
Regulators	Regulations	Supervisors
Courts	1., 3., 5., 7.	2.
Custom	Corporate structures 3., 6.	Investors 4.

Principle 1: Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels.

Principle 2: Supervisors should review and evaluate banks' internal capital adequacy assessments and strategies, as well as their ability to monitor and ensure their compliance with regulatory capital ratios. Supervisors should take appropriate supervisory action if they are not satisfied with the result of this process.

Principle 3: Supervisors should expect banks to operate above the minimum regulatory capital ratios and should have the ability to require banks to hold capital in excess of the minimum.

Principle 4: Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank and should require rapid remedial action if capital is not maintained or restored.

Thus, we see that onus is on banks to (1) have a process for assessing the overall adequacy of capital and (2) operate above the minimum regulatory ratio. On their part, supervisors must (1) review the capital adequacy process of banks and (2) take appropriate actions to require banks to hold capital above the minimum and to intervene early if necessary.

Conclusions


Llewellyn concludes with six recommendations, and we conclude with a review and prioritization of those recommendations. Most of them follow directly from the seven elements of the regulatory regime, although some require a greater degree of

extrapolation from the analysis of the paper. Briefly, the recommendations are:

1. Less emphasis on formal prescriptive rules,
2. Greater focus on incentive structures,
3. Strengthen market discipline and monitoring,
4. Differentiate banks and other financial businesses,
5. More emphasis on internal risk management and control, and
6. Strengthen corporate governance mechanisms.

The first recommendation is important. Taken together with numbers 2, 3 and 5, it implies a refocusing of the regulatory structure away from mechanical rules and toward supervision and market discipline. In this sense, the recommendations are consistent with the approach of the new Basel proposal, which supplements the rules of Pillar 1 with the supervision and market discipline of Pillars 2 and 3. The key question that arises in this regard is how the increased emphasis on incentive structures, internal risk management and market discipline is to be accomplished. Basel's Pillar 2 suggests how supervision can play a role, and Pillar 3 how the market may be allowed to operate efficiently.

A question arises with regard to recommendations 3 and 6, namely, whose responsibility is it to effect the necessary measures? To a great extent, incentive structures and governance mechanisms are instituted by firms themselves and by market forces, and the direct active role of the regulator may be somewhat limited. Finally, with regard to recommendation 4, we note that it seems to go against the current trend in financial markets, which goes in the direction of less differentiation, not more.

How should these recommendations be prioritized? The individual goals are important, but it is also important that the regulators and the other “builders” in Table 1 have the means at their disposal to achieve the goals. For this reason, recommendations that involve improvements in supervision, for instance recommendation 5, would seem to be the most attainable at this point in time. There is much to be said in favor of Llewellyn’s call for balance among the various elements of the regulatory regime. However, the overall task is large and it is difficult to attack every single issue at one time. In the short run, a push to improve supervision may have the highest payoff. 

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NORBERT WALTER



Comments on
David T. Llewellyn,
“A Regulatory Regime
for Financial Stability”

David T. Llewellyn has presented a stimulating paper because not only does it lay out in great clarity the necessary design elements of a regulatory regime, but, more importantly, it also discusses the interrelation and interdependence of those elements. Thus, Llewellyn draws attention to the fact that none of the regulatory instruments can or should be used in isolation but rather that one should talk about a *regulatory regime* which is built from a mix of the seven components proposed in the paper. Llewellyn also rightly points out that there are different combinations of those elements yielding equally efficient regimes. Finally, he argues that the optimum mix of the components will vary between countries, over time, and between banks.

It is hard to add substantial content to Llewellyn's paper. Consequently, I shall, first, provide only a few comments on the paper. Second, I intend to build – from a practitioner's point of view – on Llewellyn's comments as to whether the proposed reform of the capital adequacy accord ("Basel II") corresponds to the requirements for an efficient supervisory regime, as sketched by Llewellyn.

I Some comments

1. A minor point to start with: Unfortunately, Llewellyn does not discuss the seventh component of the regulatory regime, i.e. the discipline and accountability arrangements applied to regulatory institutions. This is a regrettable gap, especially considering that regulatory institutions over time have gained ever more influence and autonomy – a process that can only strengthen in the future.
2. It might be questioned whether the "incentive structure" should really be part of the list of components. It might reasonably be argued that the incentive structure is the result of all the other components rather than a component in itself. Alternatively, one could reduce the list to simply this one component, i.e. the incentive structure, as that, fundamentally, is the only thing that counts. This option would probably be in line with Llewellyn's own thinking as he states himself that incentive structures "are at the heart of the regulatory process".
3. It is interesting to note that some internal corporate governance structures are already part of the *rules* and, indeed, will increasingly become so. In particular, the Basel Committee's "Core Principles of Effective Banking Supervision" include many of the elements that Llewellyn lists under the heading of internal corporate governance structures. Most people – including myself, – would argue that this is a sensible development, as it codifies structures and best practices, which have proven to be important in order to avoid financial crises, and makes them compulsory for all institutions. However, following Llewellyn's arguments, a more sceptical assessment may be warranted: Turning internal control mechanisms into externally imposed rules may blunt their effectiveness and weaken their incentive structure, as institutions might be induced to, henceforth, merely follow the letter of the rules in order to satisfy regulators, rather than to follow the spirit of a self-imposed mechanism in order to satisfy the own conscience.
4. The question about the right combination of components within the regulatory regime is a most intriguing and fascinating one. First, there is the question about whether all components must always be part of the regulatory regime, albeit in different combinations, i.e. with different weights attached to them. Llewellyn answers in the affirmative, which is based on the implicit assumption that individual components are not fully substitutable. But one might raise the question of whether that is indeed the case. For instance, it is instructive to recall that there was a time in history, when there was banking, but no official supervision. While such an arrangement may no longer be tenable in a modern and com-

plex financial system, it may be useful to question whether the presence of all seven components in any regulatory regime is really necessary.

Second, as Llewellyn points out, some of the components may be causally related. This is probably the most interesting aspect of the paper and raises a fascinating set of topics for future research. It implies that the spectrum of potential choices is more limited than one might think. It would be a real breakthrough to determine the minimum amounts needed of each component and the marginal rates of substitution (MRS) between the components. In other words: Could one exchange two additional units of, e.g. *market discipline* for one unit of *monitoring and supervision* – or would it have to be three? And is that rate of substitution constant or are there, which I consider likely, decreasing returns to each component, so that the MRS would vary.

5. Llewellyn's proposal that there be different financial regimes depending on the specific characteristics of the individual institution and the respective national financial market raises a lot of questions. While it may arguably enhance the efficiency of regulation, it is problematic in view of the competitive neutrality of regulation. It must be kept in mind that the structure of the regulatory regime is a major determinant of the competitiveness of a jurisdiction and the financial institutions operating therein. There are two factors determining how problematic different regimes are: (1) the extent of market integration and (2) whether one puts more

emphasis on the *neutrality of instruments* rather than the *neutrality of results* of regulation.

First, the extent of *market integration* is relevant on two levels: between national markets and with respect to the blurring of borders between market segments. As to the former, the coexistence of a global financial market and regulation still broadly organised along national lines is creating tension. With national agencies regulating in parallel in a single market, the principle of competitive neutrality is at risk. Besides, the regulatory environment is actually one key factor affecting market integration.

For example, existing deficiencies are a serious obstacle to achieving a truly integrated European financial market. This is not a "chicken and egg" problem; rather, it is a mutually reinforcing process. In any case, international market integration has, in fact, proceeded further than is commonly perceived and it is time that the regulatory environment reacted to that. In a global financial market, the profitability, risk structure, and exposure of banks are influenced by what happens beyond the borders of the home country as well as in their domestic market – irrespective of how active an institution itself is on international level. As to the blurring of borders between market segments, it should be obvious that the same rules must apply if different institutions essentially perform the same business, irrespective of whether they are incorporated as insur-



ance companies, banks, or securities houses.

Second, the issue of *instrument vs. results neutrality* is a complex problem: Should we be concerned that rules are identical for everybody (instrument neutrality) or should we rather ensure that the effective level of supervision is identical (neutrality of results)? Neutrality of instruments seems to be called for on grounds of competitive neutrality, especially as regards highly prescriptive official regulation. It seems intuitive that all market participants should be subject to the same rules as long as they conduct the same type of business and assume the same type of risk. However, as Llewellyn rightly points out, treating as equal firms that in practice are not equal is not competitive neutrality. To give an example: Assume that two banks conduct the same kind of business (e.g. lending to an emerging market government), but that one of the two has a vastly superior risk management, higher transparency, and better corporate governance. Obviously, this institution would imply significantly lower risk to the stability of the financial system and would therefore deserve a more lenient treatment with respect to official regulation and supervision. Thus, something seems to speak for striving for the neutrality of results rather than instruments.

Nevertheless, such a model is unlikely ever to be implemented. To put such an idea into reality, there would have to be a system of supervision that was constantly tailored to the individual institution – no mean feat given the seven components

of the regime and given that the institution itself constantly changes, which requires that the mix of components be adapted accordingly! It is highly improbable that any regulator would live up to this task. In addition, leaving too much discretion to regulators and banks in devising their optimal, tailor-made regulatory regime carries the serious danger of introducing competitive distortions into the system.

2 Does Basel II live up to the requirements laid out by Llewellyn?

Before assessing Basel II in greater detail, let me emphatically underline Llewellyn's statement that "the presence of an economic rationale does not justify everything that a regulator does" and that "the case for regulation does not exclude a powerful role for other mechanisms to achieve the objectives of systemic stability and legitimate (but limited) consumer protection". Not everything that can be regulated by rules needs to be regulated or, as Alan Greenspan once put it: "The physician's admonition: 'First do no harm' is a desirable starting point for bank supervisors as well." I also fully agree with Llewellyn's assessment that there needs to be a shift within the regime, in particular towards an enhanced role for market discipline, towards less reliance on detailed and prescriptive rules and a greater focus on incentive structures. The more complex banking operations become, it is likely that less reliance can and should be placed on detailed and prescriptive rules. While it is probably true that it would never be possible to fully substitute market discipline for rules, it is equally true that market discipline must assume a greater role.

Fortunately, for all its deficiencies as to the details, Basel II in its general conception reflects these two premises. In a way, by proposing the three-pillar system, Basel II certainly moves into the direction of the concept of a *regulatory regime* as proposed by Llewellyn. There is general agreement that Basel II is a sensible move into the direction of a regulatory regime striking a better balance between the different components than has been the case hitherto. Thus, the intellectual spirit of the Basel II approach and Llewellyn's proposal is very similar, indeed.

The revision of the Capital Accord offers a great chance to better align banking supervision with market practices and to set incentives for further progress in the risk management process of banks. Basel II will remove the distortions in incentives which have arisen from the possibility of regulatory arbitrage introduced by Basel I.¹) The Basel Committee explicitly recognises that a major role of supervisors is to ensure that banks have suitable processes in place, which ensure that targets for capital are set at levels which are commensurate with the bank's risk profile. The recognition of internal ratings is an important element in providing incentives for banks to improve their risk management.

It is particularly welcome that the Basel Committee explicitly points out that the three pillars are mutually reinforcing and must be seen as a package – a notion that is, incidentally, very much in line with Llewellyn's point that there are tradeoffs between the different components of the regulatory system.

So much for the good part, i.e. the general conception of Basel II. Unfortunately, at least in its current

form (i.e. based on the second consultative document) the reality and the implications of Basel II fall well short of achieving those general aims. Let me address the three pillars in turn.

Pillar 1

While emphasis is given in principle to banks' improving their internal risk models and risk management, the accord will offer only limited incentives to move to the more sophisticated approaches.



- The Basel Committee introduced caps and floors for the use of the more advanced internal methodologies as well as for the recognition of credit risk mitigation instruments. The Committee expects that the foundation approach will result in a reduction of risk weighted assets (RWA) of 2% to 3% compared to the standardised approach. For the advanced approach, for the first two years after implementation a floor will be set at 90% of capital requirements as would result from foundation approach. Caps on capital relief are inconsistent with the objective to offer adequate incentives for banks to improve their internal processes, would cause unnecessary double work, and should therefore be dropped.

¹ The deficiencies of the existing Basle Capital Accord are amply known by now and have been discussed to great length in several studies – including the brief summary in Llewellyn's paper.

- There is a double counting of expected loss both for credit and operational risk, which results from an inclusion of expected loss into the calibration of regulatory capital requirements. This is neither economically justified, as expected loss is part of the normal cost of doing business and should already be covered by risk provisions and accounted for in product pricing; nor would it foster an alignment of regulatory and economic capital.
- The much broader recognition of credit risk mitigation as proposed by the Basel Committee is very much in line with industry expectations. However, we are concerned with potential distortive effects resulting from the introduction of the “w”-factor as a floor for capital relief.
- With regard to operational risk, Deutsche Bank appreciates that the Basel Committee follows industry proposals to allow the choice between different methodologies for the determination of a capital charge for operational risk with a varying degree of sophistication. However, we are concerned of the level of detail with regard to the quantitative and qualitative requirements for the use of sophisticated regulatory capital options. Banks will be burdened with a complex set of regulatory requirements whilst the operational risk (OR) capital charge benefits are still unclear. It is also a matter of concern that the basic indicator approach does not constitute a risk-sensitive measure. In fact, it would lead to the absurd result, that banks which manage to realize higher earnings would be punished for doing

so by a higher capital charge for operational risk.

Pillar 2

Deutsche Bank, in principle, acknowledges that more individualised supervision is the logical consequence of the recognition of internal methodologies as was demanded by the industry. However, as the experience with the review process for market risk models shows, internationally active financial institutions are often confronted with different standards and conflicting requirements from various national supervisors for the application of internal methodologies. Not infrequently, this results in prohibitive workloads and costs. Therefore, the ‘home state regulator’ should have the ultimate responsibility for the recognition and group-wide application of internal methodologies, and this should be firmly declared in Pillar 2.

It is appreciated that the Basel Committee recognizes that *“the emphasis of the supervisory review process should be on the quality of the bank’s risk management and controls and should not result in supervisors functioning as bank management”*. The ultimate responsibility for business decisions has to stay with the senior management of a bank. Shareholders, market forces, and regulations provide directions and limitations, but cannot and must not be a substitute for management decisions. However, there is legitimate concern that the supervisory review process could indeed take on the quality of managing a bank if not appropriately framed by standards and limits, i.e. if it is not defined where supervision turns into management. This view is fully in line with one of the overriding principles attached to the supervisory review process, namely: “Supervisors must take care to carry out their obliga-

tions in a highly transparent and accountable manner”.

While it is true that too detailed and prescriptive a rule-book may add compliance costs without providing commensurate benefits, it is necessary to strike a balance between the advantages of discretion and the dangers of unequal treatment, which may result in distortions to competition due to regulators’ actions. It should be emphasised that Deutsche Bank does not call for a detailed catalogue of minimum requirement for supervisors that would not leave an appropriate amount of national discretion to reflect the respective market structure and culture of supervision.

While we agree with the Committee that additional capital requirements are not in all cases the appropriate solution to address deficiencies in the risk management processes of banks, we disagree with the view taken by the Basel Committee on capital increases, namely to suggest that “increased capital might be used as an interim measure while permanent measures to improve the bank’s position are being put in place”. It should be well understood that capital measures cannot instantaneously be switched on or off without causing potentially severe distortions.

Furthermore, Deutsche Bank does not see the need for other capital ratios than the minimum regulatory capital ratio to be introduced by supervisors and monitored for individual banks. The so-called trigger and target ratios would result in supervisors trying to micromanage banks’ capital and would cause confusion rather than add to the stability of financial markets. (In contrast, Llewellyn’s support for a Structured Early Intervention and Resolution (SEIR) system is obviously very close in spirit to the proposals of the Basel

Committee.) If national supervisors decide to apply higher capital ratios to all banks in their jurisdiction (well-capitalised ratios) these should not be applicable to foreign banks operating in this country on a group-wide basis. Otherwise, not only would the capital rules according to the Basel Accord, but also the responsibilities of the “home state regulator” be undermined.

Finally as to Pillar 2, Llewellyn rightly draws attention to the fact that this will require a high standard of sophistication on the part of bank supervisors – something that, despite their high motivation and commitment, is not assured due to the fact that most supervisory agencies – operating, as they do, within the narrow confines of a public-sector budget – lack the appropriate financial means to attract highly qualified professionals.



Pillar 3

It is highly welcome that the proposed new Basel Accord explicitly acknowledges market discipline as one of the three pillars on which the future capital adequacy regime will rest. Deutsche Bank strongly welcomes Pillar 3 and views it as an important innovation of the new Basel Capital Accord. Better disclosure standards will have a powerful impact through self-regulation of the market. Attempts should be encouraged to use self-regulation wherever possible as a substitute (not only as a supplement) to supervisory intervention.

However, besides the requirement for a formal bank policy for disclosure (including objectives, strategy, review process) the range of intended requirements comprises

very detailed basic, as well as highly complex, qualitative and quantitative information. Thereby, the current proposals go significantly further than the Committee's initial objectives that were stated in the first consultative paper. The information and data required exceed practical dimensions. There is also legitimate concern about the disclosure of proprietary information (e.g. internal models).

Pillar 3 is intended to allow the "reasonable" investor to get a clear picture of a bank's risk profile and capital position in order to assess its ability to absorb losses. However, it remains questionable whether the sheer amount and the complexity of disclosed information would not

result in an "information overkill" that could lead to misinterpretations or rational ignorance. The supervisory approval seal on the quality of the banks' internal methodologies and risk strategies should suffice to meet investors' information and level of safety requirements. Voluntary disclosure continues to expand rapidly among financial institutions. Overburdening the industry with mandatory, inflexible disclosure requirements rather than strengthening this market-driven approach which is highly responsive to investor requirements could stifle innovation and prevent the timely reflection of fast moving market developments.

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KARL-HEINZ GRASSER



Dinner Speech:

Aktuelle Themen

der Budgetpolitik

Sehr geehrter Herr Gouverneur, verehrte Damen und Herren! Ich freue mich sehr über die Einladung zur Volkswirtschaftlichen Tagung der Oesterreichischen Nationalbank. Sie werden sich sicher noch an die vorjährige Veranstaltung erinnern, an der einige von Ihnen bereits Gast und auch Zeuge waren, dass wir wesentlich mehr „Gäste“ hatten, als eigentlich eingeladen waren. Die diesjährige Veranstaltung wird sich deutlich hievon unterscheiden. Ich darf mich auch freuen darüber, dass so viele Vertreter aus verschiedensten Ländern, besonders aber aus den Nachbarländern, zu uns gekommen sind.

Gouverneur Liebscher hat es bereits angesprochen: Wir haben eine – so glaube ich – wesentliche Wende in der Finanzpolitik Österreichs im letzten Jahr eingeleitet, eine Wende in Richtung Konsolidierung und in Richtung ausgeglichener Haushalt. Es ist eine Konsolidierung, die ab dem Jahr 2003 zu mehr als zwei Dritteln auf der Ausgabenseite basieren wird und nur zu etwa einem

Drittel auf der Einnahmenseite. Wir haben uns zu bedeutenden strukturellen Reformen in der öffentlichen Verwaltung bekannt und werden im Jahr 2003 zumindest eine Ersparnis von rund 0,5% des Bruttoinlandsproduktes, also rund 15 Mrd ATS, alleine im öffentlichen Bereich erbringen. Bereits im vergangenen Jahr haben wir eine Pensionsreform beschlossen, um in der „1. Säule“ der Altersversorgung die Nachhaltigkeit der Finanzierung zu verbessern. Wir konnten auch ein



Bekenntnis der österreichischen Bundesländer und Gemeinden zur Budgetkonsolidierung in Österreich erreichen. Damit ist es zu einer gesamtösterreichischen Anstrengung geworden, den Haushalt zu konsolidieren. Der Finanzausgleich zwischen dem Bund und den Ländern leistet dazu einen sehr deutlichen Beitrag.

Jeder hier im Zuhörerkreis, der die Politik der österreichischen Bundesregierung verfolgt, muss, so hoffe ich, erkennen, dass wir uns der Globalisierung, dem Wettbewerb und dem zunehmenden Konkurrenzdruck als Chance und auch als Herausforderung für unser Land verschrieben haben. Wir schaffen es – trotz Konsolidierung des Haushaltes –, Schwerpunkte in Bezug auf die Verbesserung der Qualität der öffentlichen Finanzen zu setzen. Beispielhaft haben wir eine Sonderoffensive für Forschung und Entwicklung für die nächsten drei Jahre gestartet, weil wir wissen, dass wir Innovationen, neue Produkte, eine Restrukturierung der Wirtschaft hin zur New Economy auch in Österreich vorantreiben müssen, um im internationalen Wettbewerb standhalten zu können. Wir haben Schwerpunkte im Bereich der Bil-

dung und Ausbildung gesetzt und wir haben auch – trotz Konsolidierung der Haushalte –, was die Infrastrukturinvestitionen anbelangt, deutliche Steigerungen in der Größenordnung von 25% bis 30% der bauwirksamen Investitionen in Österreich erreichen können.

Zu dieser Globalisierung, zum liberalen Zugang einer Wirtschafts- und Finanzpolitik gehört auch eine umfassende Privatisierungsoffensive. Wir haben einige Unternehmen, an denen die Republik nach wie vor wesentlich beteiligt ist. Wir sind inmitten einer, wie ich meine, sehr erfolgreichen Privatisierung, die auch Druck auf all diese Unternehmen ausübt, was ihre Ergebnisentwicklung, was ihre strategische Position auf den Märkten und – so erforderlich – was einen Turnaround betrifft. Dies alles ist von einem Grundsatz getragen, nämlich privat ist besser als Staat im Bereich der Unternehmensführung mit all den Effekten auf Wachstum, Beschäftigung und Wertschöpfung in Österreich. Die Bundesregierung verfolgt auch eine Politik der Liberalisierung im Gas- und Strombereich. Wir haben im Gegensatz zu anderen Ländern – Sie kennen die Diskussionen auf europäischer Ebene – eine Liberalisierung im Strombereich beschlossen, die bereits im Oktober 2001 wirksam wird und wir erreichen den gleichen Liberalisierungsgrad im Gasbereich im Oktober 2002. Österreich liegt hier in der Liberalisierung weit vor vielen anderen Ländern, was im Übrigen auch für die Freiheitsgrade der Wirtschaft gilt.

Ladies and gentlemen, Mr. Liebscher told me that we have some problems with our interpreters, so I cannot continue in German, but I try to switch into English.

Regarding liberalization in the energy sector in the European

Union, Austria will achieve the required steps in the electricity and in the gas sector at a very early time. An analysis conducted by several institutions and presented recently examines the degrees of freedom of an economy and shows that Austria made a huge step forward in the rankings: from number 25 to number 15 of all countries in the world. Looking at the recent World Competitiveness Report, we have advanced forward for the third year in a row. I think our most recent ranking was 14th in the world. Let me mention another study carried out by the Institutional Investor, in which we were ranked number 16 in September last year and our actual ranking is number 9. So it is my impression that also international institutions take into consideration what we are trying to achieve by our policy of liberalizing the market and taking the process of globalization as an opportunity for Austria.

Let me now say some words to the economic policies of the European Union: It is my opinion that Lisbon was a very important signal for the European Union and for Austria as well; it was a signal to create a knowledge-based society, it was a signal for the European Union, it was a signal for innovation and it was a signal for research and development, too. That was important for all of us and I really think we should work toward fulfilling the objectives. At the same time, however, I have to admit that I am a little bit concerned about the progress we are making in the European Union. Regarding the results of the European Council in Nice, from a European perspective, Nice was not a success at all. Considering the Swedish

presidency, I am a little afraid that the European Union cannot afford a standstill. Rather, important decisions must be made. For example, finance ministers in the Ecofin and also in the Euro-12 group are discussing a lot of structural reforms. As to assessing what is really implemented, as far as structural reforms are concerned, I think we should do far more. Especially looking at network industries, harmonization, and flexibility of the European labor markets, the progress with pension reforms in



the European Union: I think we should make an analysis of our needs in these fields for the next 40 to 50 years in the European Union. Parallel to such an analysis we really must try to implement reforms of the pension schemes in order to make the funding of the system sustainable. At the same time we discuss tax harmonization and I think we should be able to make a progress as far as the tax base is concerned. So, if we cannot agree on harmonization in total, we should reach a compromise on the tax base. We should also be able to find an agreement on the 66 harmful tax measures in the European Union and we should come to a fair competition in the matter of taxes.

So, we have to keep in mind the structure of policies which necessitate reforms. I am convinced that speeding up these reforms will also increase the potential growth of GDP in the European Union. We cannot accept an (optimistic) growing rate of – let us say – 3% to

3.5% in the European Union, when at the same time the United States achieve an annual growth of GDP of – let us say – 5%. We have to ask ourselves: What are the reasons for the weakness in the European Union and how can we improve this situation.

This also concerns the progress of the enlargement of the European Union. Let me express my opinion very clearly: We are very optimistic and very much in favor of enlargement because it is important to meet

tural policies are concerned. We have to discuss what are the impacts on the sustainability of the financial concept within an enlarged European Union. There are several studies on this topic, let me mention the study of Dresdner Bank and the study that Sweden elaborated on. Speaking from the view of a net contributor to the EU budget, we should take into consideration that in my mind our objective must be to reach a fair distribution of the contributions within the existing Member States of the European Union.

If you remember Mrs. Thatcher and her success in reducing the contributions for the United Kingdom, I think we have to discuss this question in the European Union. At the same time, we

also the expectations of so many people in Hungary, the Czech Republic, Poland, in Slovakia, in Slovenia and the other accession countries. I think these countries have achieved some really serious progress. Enlargement will be a win-win situation for the existing Member States of the European Union as well as for the accession countries. But at the same time we have to consider that with the enlargement the population of the European Union will increase by about 30%, while the nominal GDP will just increase by about 5%. We have to consider that the income of the poorest present Member State of the EU is about two thirds of the average GDP per capita in the European Union, whereas the average GDP per capita of the poorest accession country is below one third of the average GDP per capita of the existing Member States. So, in my mind we will really have to focus on new challenges as far as cohesion and struc-

should be able to make some decisions in place, shifting benefits from Southern Europe – from Spain, Greece, Portugal, and also Ireland – to the new accession countries. It is obvious that we must try to speed up their progress, to increase the effectiveness of investments there and to support their development. We all know that it is not possible to keep the existing European financial system unchanged and at the same time take in new members and deliver additional benefits to them. Let me make it very clear: From an Austrian perspective, I am not in favor of a new tax at European level to finance the European Union because – in my mind – such a decision would take us into the direction covered by the debate now going on between Prime Minister Schröder, President Chirac, and Prime Minister Jospin and others. It is the key question: Should there be a centrally-governed European Union, a central state or do we strive toward



the idea of working together and of the cooperation of different and independent states. This debate continues and it will be a long time before any decisions are made. We also have not yet reached agreement on the question what the competences of European institutions are and how centralistic – or how federal – the European Union should be.

So, in my mind we really have to face this discussion and to see how we are able to change structural cohesion policies and to reach a new agreement there. If we take Lisbon seriously, we also should be in a position to change the fiscal policy of the European Union as a whole. Regarding the amount of money transferred to the agricultural sector – we spend half of the budget of the European Union on agriculture – this contradicts the idea of a Europe of innovation, a Europe of research and development, or a knowledge-based Europe. So, although it is a serious political question, I really have to say: If we take our own messages and objectives seriously, we also should be able to move forward as far as the European budget is concerned.

Finally, since today you discussed especially financial supervision. You will be aware that in Austria we are just discussing a reform of our financial market supervision. I think that we developed a good concept, a concept that implies serious progress for Austria as presently most of the supervisory responsibilities are located in the Ministry of Finance itself. This holds for insurance and banking supervision, keeping in mind that the Ministry here is supported by the Oesterreichische Nationalbank, but on a material basis

the responsibility remains with the Ministry of Finance. The supervision of pension funds is another task of the Ministry of Finance, and also securities supervision. We intend to establish a new authority that will be independent, both politically and concerning its resources. This agency will be responsible for all those branches of financial supervision I mentioned before. Regarding the debate in Germany, Governor Liebscher handed an article to me that says (in German): “Mr. Eichel,



Bundesminister der Finanzen in Deutschland, lenkt im Streit mit der Deutschen Bundesbank ein – volle Mitwirkung in Bankenaufsicht zugesagt.” So the complete integration of the Bundesbank in Germany in banking supervision is granted. Let me say: We already achieved a comparable solution in Austria, so there is no need to make further steps in the direction Germany announced. It is my opinion that not all functions of banking supervision should be concentrated within a central bank. The better way is to establish an independent new institution co-operating with the central bank. The Austrian Financial Market Authority will be an agency that is built in consensus between the Ministry of Finance and the Oesterreichische Nationalbank. Both of them will do their best to support that institution, will decide jointly on the new management, and will constitute the new supervisory board of that agency. So I think we are

creating a financial market supervision which is in line with the trend of organizing financial supervision in the European Union. Since I know that there are many representatives of central banks in the auditorium, it was really not a surprise when Professor Bruni told me: The ECB's feedback on our reform is an analysis which takes our reform seriously, but it is not really very much in favor of that reform. This position is to be expected from the point of view of a central bank. So, taking the freedom of a Minister of Finance, I would say, if the ECB is not totally against our concept and we seriously have discussed on how we can adapt that concept, then at the end of the day

it will be possible to make a reform to which both, Oesterreichische Nationalbank and Ministry of Finance, can agree. It is clear to me that there is a very high need of involving central banks in financial supervision. On the other hand, I am strongly convinced that financial supervision is a core competence of every state. In this sense, divided powers between central banks and supervisory authorities are the best concept in this area.

Thank you very much for listening and I hope, you will have a successful proceeding of the conference and – if possible – a nice weekend in Austria.





WOLFGANG SCHÜSSEL



Kamingespräch: Aktuelle Themen der Wirtschaftspolitik

Ich habe das Programm der heutigen Tagung kurz überflogen und gesehen, mit welcher intellektuellen Brillanz und welchen geistigen Höhenflügen Sie bereits konfrontiert wurden. Ich werde demnach meinen Vortrag eher „down to earth“ gestalten, und Ihnen eine kleine Tour d’Horizon über die österreichische Situation sowie einen Einblick in das geben, was nun beim Europäischen Rat in Göteborg auf europäischer Ebene auf uns zukommt.

Es freut mich, dass in Österreich die Dinge gut laufen. Lassen Sie uns die wirtschaftliche Situation betrachten: Das vorige Jahr war das beste Wirtschaftsjahr seit Menschen-gedenken. Wir haben den idealen Zeitraum für die Budgetkonsolidierung genutzt. Das ist durch die hervorragende Arbeit des Finanzministers, aber auch durch die gute Kooperationen mit den Bundesländern, den Sozialpartnern, den politischen Gruppen sowie den Experten aus der Wissenschaft und Wirtschaftsforschung gelungen. Von Erfolg können wir natürlich erst

sprechen, wenn mit dem Jahr 2002 das Nulldefizit auch wirklich erreicht ist. Im Moment sind wir noch mitten in der Arbeit, um auch im Bereich der Verwaltungsreform die von uns angestrebten Ziele zu erreichen. Aber ich bin zuversichtlich, dass wir auch das schaffen werden. Zusätzlich zu den drei beschlossenen Budgets haben wir in diesem Jahr auch das Pensionsantrittsalter um eineinhalb Jahre hinaufgesetzt und den Gas- und Strommarkt voll liberalisiert. Das bedeutet, dass ab



Oktober die wilde Frische des freien Marktes auch Österreich erreichen wird. Mit diesen von uns gesetzten Maßnahmen befinden wir uns nun in der Spitzengruppe der EU-Liberalisierungsländer.

Wir haben wichtige Reformen begonnen, die zum Teil natürlich auch schmerzhaft und ungewohnt „unösterreichisch“ sind. Wir arbeiten z. B. gerade intensiv daran, die Universitäten in die Vollautonomie zu entlassen. In Einigkeit mit den Gewerkschaften haben wir mit der Dienstrechtsnovelle einen großen Durchbruch erreicht. Das wesentlich Neue daran ist, dass es an den österreichischen Hochschulen und Universitäten in Zukunft keine Pragmatisierungen mehr geben wird. Dadurch haben wir eine höhere Flexibilität geschaffen. Das halte ich für ein ganz wichtiges Symbol. Zudem führen wir ab Herbst 2001 Studiengebühren für österreichische Studierende ein.

Die Sanierung der Krankenkassen und des Gesundheitswesens wurde von uns ernsthaft in Angriff genommen. Wir befinden uns außerdem gerade in einer sehr interessanten Diskussion über ein neues Abfertigungsmodell, die hoffentlich noch

dieses Jahr erfolgreich abgeschlossen werden kann. Die Fragestellung ist, ob die Abfertigung, das ist eine Art Treueprämie für lange Betriebszugehörigkeit, nicht schrittweise zu einer zweiten Säule, der Betriebspension, umgewandelt werden kann. Das ist eine faszinierend neue Idee, die auch für den Kapitalmarkt enorm interessant wäre. Es geht schließlich um 20 Mrd ATS, die additiv jedes Jahr hinzukommen könnten. Damit wäre ein großer Nachfrager auf dem Kapitalmarkt geschaffen. Die Einzelheiten werden wir noch mit den Sozialpartnern und politischen Gruppen aushandeln. Ich glaube jedoch, dass das neue Abfertigungsmodell für Österreich eine revolutionäre Idee darstellt, obwohl diese Form von Abfertigung in anderen Ländern längst gang und gäbe ist. In Deutschland wurde ein etwas anderes Modell entwickelt, das aber in Wahrheit in die gleiche Richtung führt.

So viel sei erst einmal zur heutigen österreichischen Situation gesagt. Wirtschaftlich geht es uns gut. Wir haben nahezu Vollbeschäftigung erreicht, die in Zukunft noch ausbaufähig ist. Unsere Arbeitslosenrate liegt etwa um 3,5%. Ich glaube, dass sich diese auch nächstes Jahr nach einer leichten Einbremsung der Konjunktur nicht wesentlich erhöhen wird. Trotzdem müssen wir uns anstrengen, denn wir haben einige sensible Bereiche zu bewältigen, in denen wir einfach besser werden müssen. Einer dieser Themenbereiche ist der Bildungs- und Forschungssektor. Hier haben wir trotz der Budgetkonsolidierung einen wichtigen Impuls gesetzt. Wir stellen zusätzlich 7 Mrd ATS für Forschung und Entwicklung zur Verfügung. Vor allem wollen wir für den Wirtschaftssektor Anreize schaffen, die Forschungstätigkeit zu erhöhen. Das Ziel lautet eine Forschungs-

quote von 2,5% im Jahr 2005. Das ist erreichbar. Es ist aber nur dann erreichbar, wenn die Wirtschaft ihren Beitrag zu den Forschungsausgaben massiv erhöht. Im Zweiten Reformdialog zu Forschung und Entwicklung, der vor wenigen Tagen stattfand, hat sich die Wirtschaft bereit erklärt, ihren Beitrag von 50 Mrd ATS bis zum Jahr 2005 auch wirklich zu leisten. Es kommt nun eine nationale Kraftanstrengung zur Förderung von Forschung und Technologieentwicklung auf uns zu. Doch die Mühe wird sich lohnen, denn damit setzen wir langfristig einen wichtigen Impuls für den Standort Österreich.

Wir müssen aber auch im IT-Bereich noch besser werden. Um das zu erreichen, haben wir bereits in den letzten Jahren Milliarden in die Computerausstattung von Schulen investiert. Und wir können mit dem Ergebnis zufrieden sein. Alle höheren und weiterführenden Schulen Österreichs verfügen nun über Internetzugänge. Es ist aber auch für die nächste Zukunft für uns ein Muss, hier weiter aufzuholen und nicht zurückzubleiben.

Ein Thema der Zukunft sind aber auch die Engpässe auf dem Arbeitsmarkt. Wenn die Konjunktur einigermaßen greift, brauchen wir natürlich auch mehr Arbeitskräfte. Darüber wird in Österreich ebenso wie in Deutschland diskutiert. Die Frage ist jedoch: Brauchen wir dafür eine erhöhte Zuwanderungsquote oder gibt es auch auf dem heimischen Arbeitsmarkt Potenzial? Zur Zeit haben wir ungefähr 20.000 Arbeitslose. In dieser Zahl liegt Potenzial, denn ein Viertel bis ein Drittel dieser Menschen könnte durch Schulungen und Motivation wieder für den Arbeitsmarkt gewonnen werden. Besonderes Potenzial liegt in der Beschäftigung von Frauen. Die Vereinbarkeit von Beruf

und Familie wird das Thema der nächsten Jahre werden. Vor allem die Wirtschaft wird sich hier einiges einfallen lassen müssen, um jungen Frauen Job- und Familienchancen zu geben. Das bedeutet unter anderem, dass die Ausstattung mit Betriebskindergärten zur Betriebsrealität gehören wird. Potenzial liegt aber auch bei den älteren Arbeitnehmern. In einer Zeit, in der die Zahl der älteren Beschäftigten gegenüber den jungen unaufhörlich steigt, können wir Österreicher nicht den traurigen Weltrekord aufstellen, die jüngsten Frühpensionisten zu haben. Mit dem Hin-aufsetzen des Frühpensionsalters haben wir einen ersten Schritt gegen diesen Trend gesetzt. Jetzt geht es aber darum, Motivationselemente zu schaffen und weitere mittel- und längerfristige Maßnahmen im Einvernehmen mit Arbeitgebern und Arbeitnehmern zu treffen, um von der ständigen „stop-and-go policy“ wegzukommen. Es muss einen nationalen Konsens darüber geben, Berechenbarkeit auf zehn Jahre hinweg zu schaffen. Es kann so nicht sein, dass die Politiker vor jeder Wahl den Wählern die Sicherheit und Beständigkeit des Pensionssystems versprechen. Und dann nach der Wahl kommt das bittere Erwachen und die damit verbundenen kurzfristigen Maßnahmen. Denn, wenn mich etwas persönlich getroffen hat und das mit Recht, so war das die Kritik, dass wir diesmal relativ kurzfristig handeln mussten. Und diese Vorwürfe möchte ich beim nächsten Mal nicht haben. Deshalb ist es wichtig, dass wir hier eine längerfristige Perspektive entwickeln. Das wird schlussendlich in allen europäischen Ländern notwendig sein und auch Österreich



wird dabei keine Insel der Seligen mehr bleiben können, denn diese Inselposition gibt es nicht mehr.

Nun zu Europa, denn dieses Thema ist ja auch eng mit Wirtschaftsthemen verflochten. In der Europäischen Union gibt es derzeit drei faszinierende Entwicklungsstränge. Der eine ist die EU-Erweiterung, der zweite die Einführung des Euro, der nun praktische Gestalt annimmt. In wenigen Wochen halten wir den Euro physisch in Händen. Damit wird das neue Geld zur konkreten Wirklichkeit.



Das dritte Thema sind die Reform der Institutionen und die Diskussion um die Zukunft Europas. All diese Entwicklungen schreiten rasch voran. Lassen Sie mich das nur kurz an Hand der Positionen der 15 EU-Länder bezüglich Übergangsfristen für die Freizügigkeit der Arbeitskräfte und die Dienstleistungen veranschaulichen. Heute um 12 Uhr lief die Deadline für die 15 Mitgliedstaaten ab. Das bedeutet, dass die Frist, in der man noch Einspruch zu den Übergangsbestimmungen erheben konnte, nun abgelaufen ist. Ab heute 12 Uhr haben wir eine gemeinsame Position. Damit haben wir eines der wichtigsten und schwersten Kapitel der EU-Erweiterung abgeschlossen. Natürlich werden nicht alle Kandidatenländer damit glücklich sein. Aber angesichts der Tatsache, dass 500 verschiedene Übergangsfristenwünsche der Beitrittsländer auf dem Tisch liegen, wird sich unsere Position als ein vernünftiger und flexibler Lösungsansatz zur Entschärfung der Arbeitsplatzproblematik heraus kristallisieren. Ich hoffe sehr, dass wir auch in der Frage des Kapitalverkehrs, die derzeit noch von Frankreich blockiert wird, bis Göte-

borg einen Durchbruch schaffen. Damit hätten wir die erste Phase der Erweiterung in einem sehr ambitionösen Tempo abgeschlossen.

Der Fahrplan gestaltet sich dementsprechend: Anfang 2002 haben wir den Euro auch als Bargeld, Anfang 2003 vielleicht schon die ersten neuen Mitglieder und potenzielle Mitglieder werden zu diesem Zeitpunkt ihre Verhandlungen abgeschlossen haben. Ein Ziel ist es auch, im Jahr 2003 die Entscheidung über die Eingreiftruppe der Europäischen Union zu treffen. Damit stehen der Europäischen Union 60.000 Soldaten als militärische Kapazität zur Verfügung. 2004 findet dann die Regierungskonferenz um die Zukunft Europas statt. Wenn dieser Fahrplan hält, werden wir in einer rasanten Abfolge Themen und Themenblöcke bewältigt haben, die früher wahrscheinlich fünf, sechs, sieben Jahre benötigt hätten.

Eines der gegenwärtig spannendsten Themen ist die Zukunft Europas. Diese Diskussion ist umso faszinierender, weil das Thema neu ist und jeder seine Ideen einbringen und Impulse geben kann. Jedoch beginnt man meiner Meinung nach die Debatte am falschen Ende. Die Finalität Europas definieren zu wollen, finde ich zwar persönlich eine sehr spannende Diskussion, sie wird jedoch nicht sehr weit führen. Diese Frage ist seit 50 Jahren unbeantwortet, und sie wird auch die nächsten zehn Jahre ohne Antwort bleiben. Viel entscheidender ist, dass sich ein Konsens in der Frage bildet, in welchen Bereichen es mehr Europa und in welchen es mehr Subsidiarität geben muss. Die gestrige große Europarunde mit allen gesellschaftlich relevanten Kräften in Wien hat gezeigt, dass es eine weitgehende Harmonie und einen breiten Konsens über die Bereiche gibt, in denen mehr Europa gebraucht wird. Das

sind die Außen- und Sicherheitspolitik und die Wirtschafts- und Währungspolitik. Wichtig ist zudem aber auch eine starke gemeinsame Vertretung der Europäischen Union nach außen. Das gilt ebenso für die EU-Vertretung in den Finanzinstitutionen, in der Welthandelsorganisation und irgendwann auch in der UNO. Wenn Europa ein Global Player sein will, dann müssen wir unsere Kräfte bündeln. Nur dann spielen wir auch wirklich die Rolle, die Europa schlussendlich zukommt.

Wenn wir die Erweiterung effizient betreiben und finanzieren wollen, dann müssen wir auch den Mut haben, die inneren Reformen der Europäischen Union in Angriff zu nehmen. Und das kann für mich nur eines heißen: Umschichten, z. B. innerhalb der Agrarpolitik. Wir geben heute 90% des gigantischen Budgets für den ersten Block der Agrarpolitik, die Marktordnungen aus. Das sind Direktprämien, die nicht kofinanziert sind. Nur 10% kommen der Entwicklung des ländlichen Raumes zu gute. Diese sind kofinanziert. Meiner Meinung nach ist es auch für die Beitrittskandidaten viel wichtiger, nicht überholte Strukturen zu petrifizieren, sondern sich auf die verstärkte moderne Entwicklung des ländlichen Raumes zu konzentrieren. Dafür wäre eine Verschiebung auf etwa zwei Drittel zu einem Drittel ebenso wie die Einführung der Kofinanzierung auch in der ersten Säule förderlich. Eine solche Umorientierung würde die Finanzierbarkeit des Systems sicherstellen und zudem die Weiterentwicklung der EU zu einem ökologischeren und naturnäheren Europa fördern. Dies gilt ebenso für die Regionalpolitik. Ich bin sehr dafür, schwächere Regionen Europas solidarisch zu unterstützen. Aber es wäre auch sinnvoll über die Pauschalierung der Subventionen

und eine Evaluierung mancher Projekte nachzudenken. Dies ist notwendig, weil andere große Themenbereiche wie z. B. die Infrastruktur von der Europäischen Union nicht nachhaltig genug gefördert werden. Auf diese Frage müssen wir uns konzentrieren und Lösungen erarbeiten, dann wird auch innerhalb der Eigenmittelgrenze die EU-Erweiterung finanzierbar sein.

Den dritten großen Themenbereich bilden die Institutionen. Eben diese Diskussion sollte man meiner Meinung nach zuletzt führen, und nicht kurz nach Nizza wieder damit beginnen. Das, was wir in Nizza nicht gelöst haben, kann sich in den nächsten Monaten nicht wie ein Wunder aufknoten und regeln lassen.

Meine persönliche Meinung dazu ist aber, dass auch kleinere Länder nicht gut beraten wären, den Europäischen Rat und die Ratsformation zu einem neuen Bundesrat zurückzustufen. Wir Österreicher haben ja besondere Erfahrung auf diesem Gebiet, und ich glaube nicht, dass das Modell des österreichischen Bundesrates auf eine Staatenkammer übertragbar ist. Ich habe im Gespräch mit Gerhard Schröder, der am Wochenende in Wien war, dieses Thema angesprochen und einige Punkte hinterfragt. Und da habe ich den Eindruck bekommen, dass manche der Schlagworte, die sich im SPD-Leitantrag finden, wie die Renationalisierung der Agrar- und Strukturpolitik oder die zweite Staatenkammer á la Bundesrat, nicht nach ihrer augenscheinlichen Bedeutung zu verstehen sind. Das bedeutet, man sollte dieses groß tönende Vokabular auf das zurückführen, was eigentlich dahinter steckt. Wir brauchen nicht mehr Unterordnung,



sondern mehr Koordination. Dafür ist eine Klarstellung der Aufgaben des Dreiecks Kommission – Rat – Europäisches Parlament erforderlich. Die Kommission muss eine starke Kommission sein, die wirklich auch das Monopol auf Initiativen behält. Ebenso ist ein starker und mutiger Europäischer Rat wesentlich, der sich auch traut, etwas weiter zu entwickeln, Themen vorzugeben, einen regelmäßigen Review zu machen und sich, wie Jospin vorgeschlagen hat, vielleicht



wirklich alle zwei Monate trifft. Ebenso ist ein starkes Parlament wünschenswert, das auch die volle Budgethoheit bekommen und daher auch die volle Kontrollfunktion ausüben soll. Das könnte, glaube ich, ein vernünftiges Dreieck sein. Ebenso wichtig ist es, Duplizitäten und Parallelitäten zu vermeiden. Dafür sind zum Teil Reformen, die gar keine Vertragsänderung bedeuten, notwendig, z. B. bei dem Thema der Arbeitssprachen. Um die Schlagkraft Europas wesentlich zu erhöhen, müssen wir den Mut haben, eine klare, nicht nur vertikale, sondern auch horizontale Aufgabenverteilung durchzuführen.

Abschließend möchte ich noch betonen, dass wir in eine sehr spannende Diskussionsphase eintreten. Und diese Diskussion müssen wir auf breiter Basis führen und dabei auch die Interessen der europäischen Bürger miteinbeziehen. Das bedeutet, über die Einführung eines Schulpflichtfaches Europa, die Vorschreibung von Austauschprogrammen

für Schüler, Lehrlinge und Studenten sowie über die Sprachpflege nachzudenken und zu diskutieren. In einem gemeinsamen Europa ist es wichtig, mehrere Sprachen ganz selbstverständlich als unsere „Muttersprache“ und unsere Vatersprache zu sprechen, und somit die Trennung zwischen Muttersprache und Fremdsprache aufzuheben. Es ist auch wichtig, über die Einrichtung von identitätsstiftenden Institutionen nachzudenken. Zum Beispiel über die Schaffung einer Akademie der guten Nachbarschaft, in der man von guten Beispielen des Zusammenlebens mit Minderheiten, mit Volksgruppen lernt und dadurch endgültig die Schatten der Vergangenheit abstreifen kann. Auch sollte ein faires Modell entwickelt werden, in dem geklärt wird, wo in Europa die Institutionen angesiedelt werden. Denn ich finde, dass Europa für alle Europäer sichtbar sein muss und sich nicht in Brüssel verstecken soll. Daher bin ich auch skeptisch, dass in Zukunft alle Europäischen Räte in Brüssel stattfinden werden. Ich glaube, es hat einen Sinn, dass die Bevölkerung, wie jetzt während der schwedischen EU-Ratspräsidentschaft, spürt: „Unser Land ist Sprecher Europas und macht das sehr gut“. In Schweden ist innerhalb weniger Monate die Zustimmungsrate zur Europäischen Union um 10% gestiegen. Göran Persson hat heute gesagt, dass es zum ersten Mal eine Mehrheit derer gibt, die Vorteile und nicht Nachteile in der Europäischen Union sehen. Eben diese „Visibilität“ werden wir auch für die Erweiterung brauchen. Daher sollten wir uns ganz bewusst zu dieser Vielfalt bekennen.





29. VOLKSWIRTSCHAFTLICHE TAGUNG 2001



DER OESTERREICHISCHEN NATIONALBANK



HERMANN-JOSEF LAMBERTI



New Technologies and Financial Markets in the Long Term

Taking a look at the title of my presentation, one might be reminded of Winston Churchill's sarcastic remark, "Forecasts are difficult, especially when they concern the future." This should be a reminder that very often there is the tendency to look into the rear-view mirror when attempting to predict the future.

In the following, a closer look is taken at three aspects of financial markets. The first focus is placed on technologies and how they change. The second aspect refers to the impact this change has on the banking industry; here the perspective of Deutsche Bank is illustrated by three key theses. Last but not least, a glance is taken at Deutsche Bank's strategy with regard to how the Bank, as a Global Player in the financial services world, meets these challenges.

It is well-known that we are in the middle of a huge disruptive change, which is often labeled "the information society". Technology, deregulation, as well as globalisation

are its drivers. The interesting part here is that they all commingle towards one trend, which we would like to call "directed change", without any particular person or institution driving towards that direction or sitting at the steering wheel. The vehicle of this driving change is connectivity. Before the end of the first decade of the 21st century we will see more than a billion people being connected, and probably around 90% to 95% of all supply chain companies will be working in a fully interconnected fashion.



Some very interesting movements can be observed when looking at last year's developments of the New Economy, at the Nemax, and the Nasdaq. Comparing last year's evaluation of Yahoo amounting to USD 93.7 billion with the evaluation in March 2001 coming to only USD 9.7 billion points to a crash which puts a heavy strain on the capital market, particularly on equity markets, where future developments need to be reassessed.

The reason for this is the hype and reality curve, which can be observed with any type of technol-

ogy movement and will continue to accompany us during this presentation. UMTS's recent proceedings are maybe the best example, especially in Germany and now also in France. We can observe how much money is spent on this technology, which in the future should translate into a completely different level of value-added services driven by mobile telephony. However, we should at the same time realize that this type of movement, going through the hype phase and coming down again, is not a short-term phenomenon but is definitely here to stay and will continue to determine our actions.

Moore's law states that every 18 months we see a doubling of computing power. This is currently accompanied by a hundredfold increase on storage capability and a thousandfold increase in bandwidth. When translating this into the economic environment, the rules of the game, which applied for a whole generation of 30 to 40 years in the last century, the industrial century, are being redefined. The structural integration of the economy, probably the most important consequence of this process, transgresses traditional boundaries of industry.

Figure 1

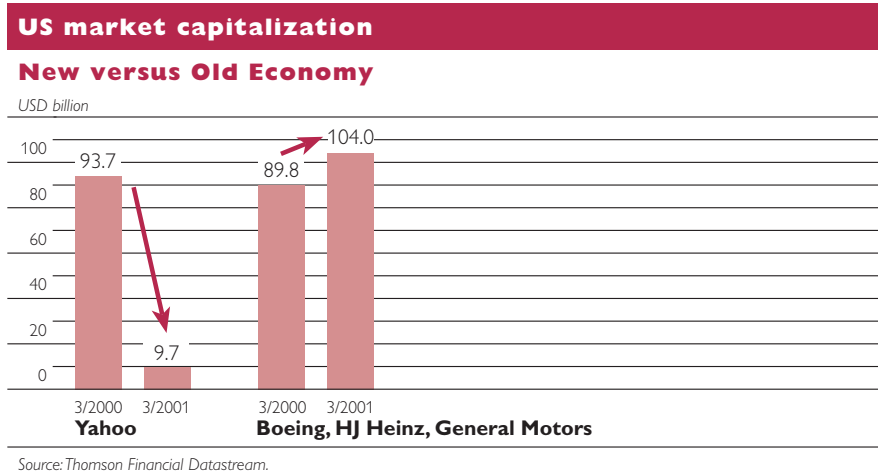
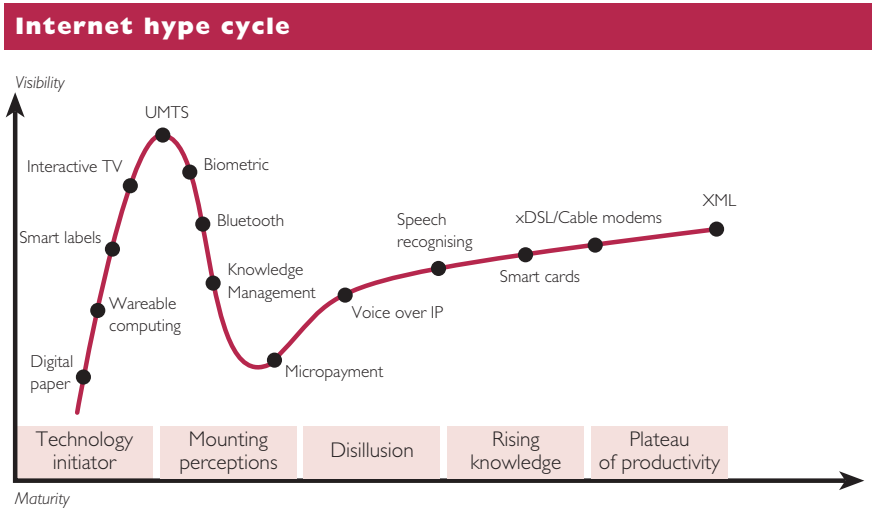
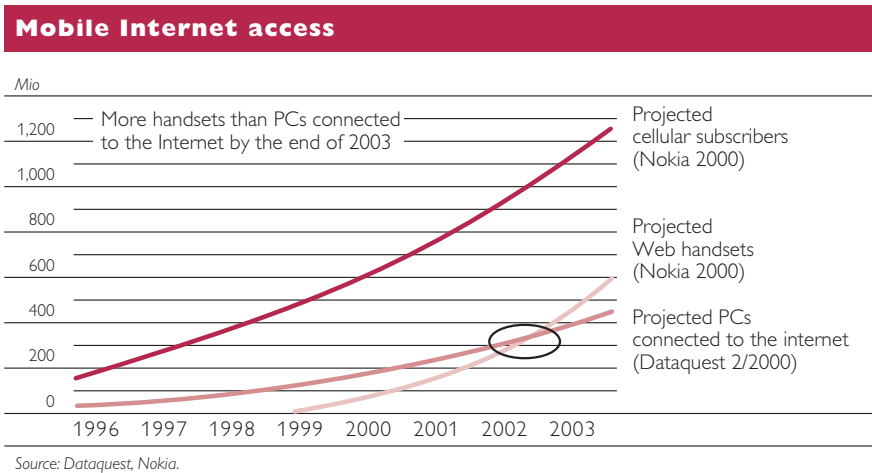


Figure 2



Source: Thomson Financial Datastream.

Figure 3



Source: Dataquest, Nokia.

There are two trends associated with the emergence of a technology-driven financial services industry: First of all, end devices such as mobile phones, personal digital assistance, WAP telephones etc. will be the major access points for any type of financial services including the authentication of transactions. It is predicted that as early as 2003 there will be more mobile handsets connected to the Internet than PCs. At the same time we have to remember that everything dealing with financial services even today is digitized. In

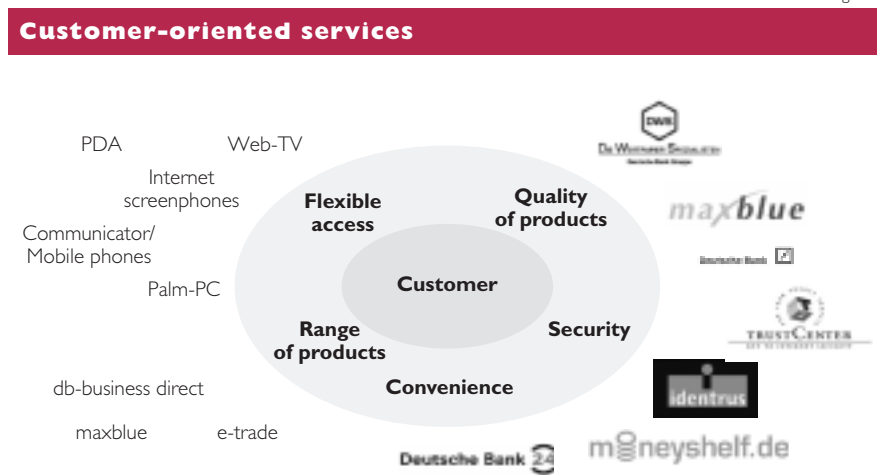
the financial world there are no physical products. Thus, there is a need to increase the co-operation of telcos and banks as far as future value propositions are concerned.

Three theses

Thesis 1: New Technologies enable Deutsche Bank to meet higher customer expectations by providing innovative products, services and security.

Taking a closer look at the first thesis we see the customer and her or his expectations at the center of our focus. Since all products and

Figure 4



services offered in the financial sector are digitized, banks have to utilise new technologies, and thereby meet higher customer expectations. We see a whole “sophistication wave” going on with respect to financial services, which will overthrow the traditional structure of delivery of financial services as it is presently for example on the retail side in branch office environments. In addition to branches we will see a proliferation of different access channels. These include the Internet as we see it today, but do by no means stop there. New devices, such as mobile phones and personal digital assistants will be used as well as interactive television to deliver services to users in their private environment. It is important that we start adopting the different channels early and choose an appropriate match of service and channel. The closing of major financial transactions, such as a mortgage on the family home, will most likely not be performed on a mobile phone, while on the go, but payment transactions for goods and services will.

If one examines the scenario of capital markets, retail markets and the risk proposition, one will find some very interesting trends. In cap-

ital markets we see that the behavior of trading has completely changed in the last couple of years. We all know about the past trends of proprietary trading which we saw in fixed income as well as in equity markets. They have changed into a completely flow-driven environment. By using modern technology, presently we are able to create a throughput of roughly USD 2 billion per hour for any type of stock inside the Euro Stoxx. The amount of volume will further increase and thus reduce its margin. At the same time, the higher volume also creates more capability around the world and definitely is liked by institutional investors as they churn their large portfolios against different markets in the United States or in Europe. Such a development is quite interesting from a national bank perspective. By looking at the US dollar/euro rate early in the morning, it can easily be imagined that – independently from fundamental figures – this has to do with general confidence levels of institutional investors translated into offering or demand of currency or currency underlying assets.

When it comes to delivery channels, you have to look at the change of the overall landscape for example

of retail banks. Deutsche Bank for instance today has around 1,000 retail branch offices in Germany. The bank Fortis, in the small country of Belgium, counts 2,100 branch offices. Can this be sustainable in the future with a rather more sophisticated customer, with the sophistication of OTC trading driven towards equity markets and right into the asset gathering attitude of retail clients? We do not think so. That means that we will definitely see a further dramatic decline of our overbanked infrastructure across Europe.

The mobile phone as the device of the future: We recently introduced something we call paybox, which is a mechanism to perform payments via the mobile phone by authentication with a personal identification number (PIN). Today, this system not only allows to make any type of Internet payment, but basically completely erases the necessity for credit cards or cash in any country across the European continent. Why is only the European continent covered? Because the defining limit of this technology is the GSM standard. It refers to a technology stand-

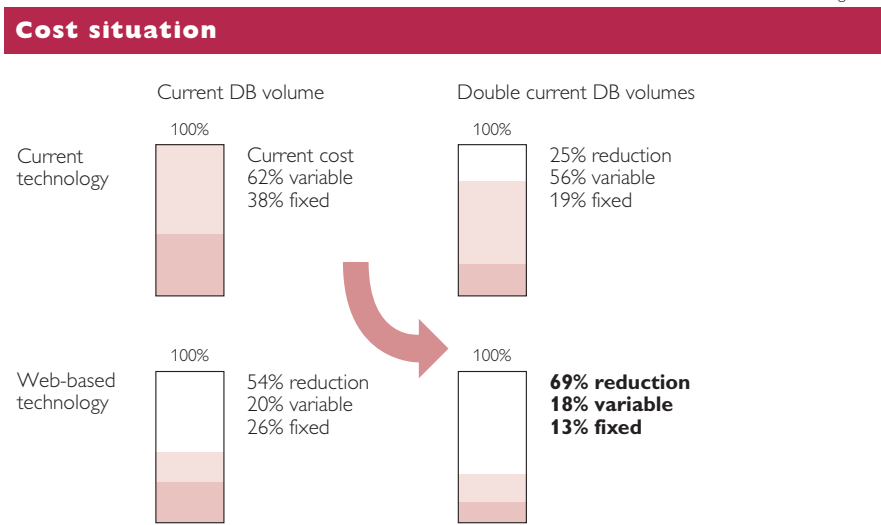
ard and not to the functionality of the product. It is very interesting to see that all of a sudden a technology standard becomes the limitation of the proliferation of a financial product. As of today, there are some 300,000 people across Europe who use devices like a mobile phone to perform authorisations or payments directly. In four to five years we will see a dramatic increase of this number. The impact can easily be quantified, by looking at the development of SMS messaging over the past five years.

Thesis 2: New technologies enable Deutsche Bank to realise economies of scale based on optimised processes.

The cost pressure and the decrease of margins, the disintermediation of any type of financial services product is going to be a huge driver for economies of scale. One indicator is the fact that financial services markets integrate and mingle with telecommunication industries. Ultimately, there will be more mergers and acquisitions.

New technologies dramatically reduce the production costs, as they increase connectivity of markets and connectivity of customers. When

Figure 5



Global fixed income and equities cost per trade – simulation of key effects – 2005.

looking at the current volume of transactions, the application of new technologies can achieve a reduction of the cost level to 54%. Growth of transaction volume constitutes a trend observed in markets with increased demand, especially on the retail side, and an increase churn on the institutional side. If we assume a doubling of the transaction volume over the course of the next two years, which we believe to be plausible, the cost impact will be as large as 69%.



Such a change of the cost situation takes us to a completely different playing field, which is not the optimisation of a process, nor a cost-cutting program of 3%, 4% or 10%, but which implies changing the landscape fundamentally. It is very important to understand that this example about a clearing and settlement infrastructure of a large player like Deutsche Bank will not stop at the limits of the bank but in fact has its counterpart on the clearing and settlement side of the financial markets across Europe.

The discussions about the integration of the International Central Securities Depositories (ICSDs), namely Euroclear and Clearstream, are just an example of how the forces of this type of cost leverage also cre-

ate pressure on management teams and on institutional setups in European markets.

Apart from the perception of our different constituencies of the euro, the biggest obstacle of the euro to become a success in the next couple of years is the differences of regulations in the participating countries. Regulations for financial markets differ considerably as far as the clearing and settlement infrastructure is concerned. This concerns both the payment side and the security side.

If institutions are not able to funnel their operations into a streamlined process, which applies the type of cost leverage described above, they will face a major problem as retail customers compare the different offerings of security exchanges across Europe. A major problem continues to be the comparison with the United States, where, as of today, cost levels in capital markets are roughly 10% of what can be observed in cross-border trading in Europe.

Thesis 3: New technologies increase competition from near and nonbanks due to the fragmentation of the value chain and the elimination of market entry barriers.

Banks will face increasing competition, when it comes to building new relationships with clients, on the commercial as well as on the institutional front. On the retail side, we should not only turn our atten-

Figure 6

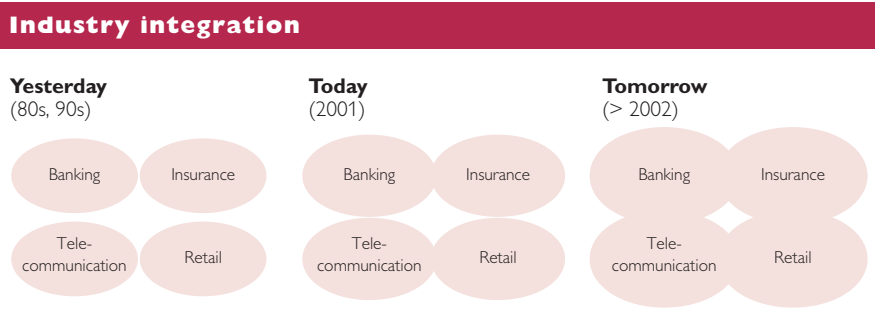
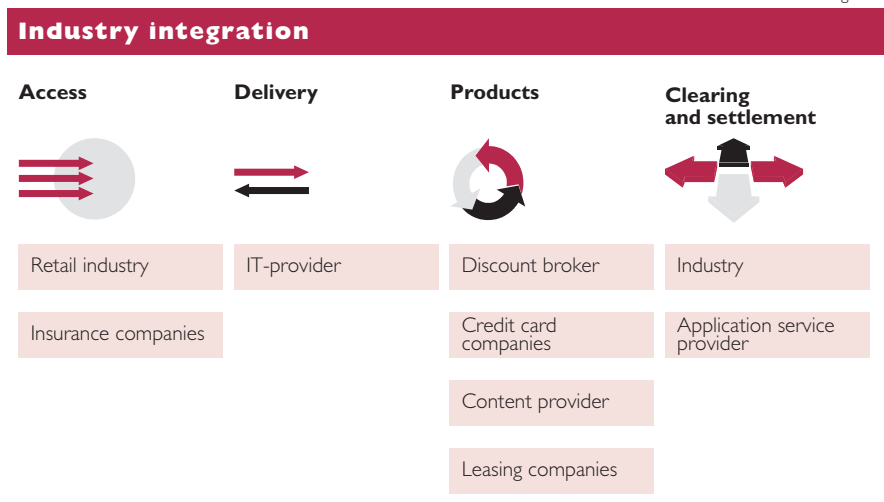


Figure 7



tion to the telecommunication industry, but for instance to car manufacturers, which are involved as much as retailers. They will leverage their power, which lies in the sheer number of clients in their own databases, to drive additional digitally driven value-added services, i.e. financial services, towards their customer base.

Depending on which area of competence one focuses on, new market entrants can be observed from different directions. In the delivery of information and services, IT providers are competing with banks. Products and services traditionally associated with banking are also being offered by discount brokers, credit card companies, content providers and leasing companies. Even settlement functions are taken over by application service providers (ASP).

Another interesting aspect in that thesis is “order flow”. As margins decrease it becomes very interesting for large players to try to capture the order flow, i.e. they try to internalise the order flow, take it away from the public exchanges, and therefore gain the quality of the full margin between bid and offer. This also means that to a certain degree

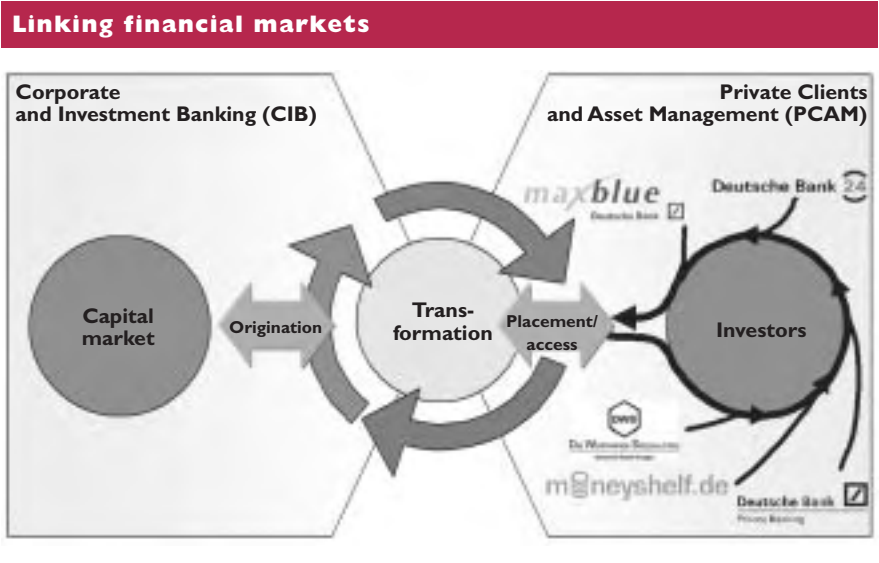
pricing on a public exchange in the form of an open order book is going to be disintermediated by new technologies. It becomes at least questionable if in the future public exchanges will have the proposition of the best price at any given time. When looking at the activities of retail brokerages in the United States today, and how this retail brokerage translates into websites, where you can do OTC trading on the spot, you can easily imagine that this trend will cross the Atlantic and emerge in Europe as well.

**IT strategy
of Deutsche Bank**

Let us look at the strategy of Deutsche Bank: How do we position ourselves knowing about all these fundamental changes going on, about this huge disruptive technology impact on our digitized products.

We see our strength basically in bringing capital markets in close connection with the investor. This means that we deliberately depart from the classical bank operations where we lived from the spread between the passive side, the deposit side, and the active side of the balance sheet, the loan side, and turn towards a product transformation

Figure 8



into what our analysts call a "Flow Monster". This "Flow Monster" tries to generate flows from capital markets by using any type of structured product. It offers investors an environment which allows them to invest according to their risk classification and their specific appetite. This transformation process generates fee and commission income, which

is our source of our future growth, rather than interest income.

Initial public offering (IPO) using the Internet

Some tangible examples of IPOs in Germany in the last year were Deutsche Telekom III, EADS and Infineon, the semi-conductor subsidiary of Siemens.

Figure 9

IPO and demand

in million of shares

Offering	Deal size	Allocation	Demand	Rate of oversubscription
Deutsche Telekom 3	230 ¹⁾	<div><div>167</div><div>63</div></div>	<div><div>381</div><div>319</div></div>	2.3 5.1
EADS <small>European Aeronautic Defense and Space Company</small>	133	<div><div>80</div><div>58</div></div>	<div><div>103</div><div>120</div></div>	1.3 2.1
Infineon <small>technology ag</small>	154	<div><div>53</div><div>107</div></div>	<div><div>1,547</div><div>4,007</div></div>	29.2 37.4

Retail

Institutional

¹⁾ Including Greenshoe.

The book building of the Infineon IPO on 21 February 2000, for the first time was managed over the web using Deutsche Bank's maxblue technology. Between 11:00 am and 2:30 pm about 3.5 million German retail customers accessed this website. Related to our capability in traditional branch networks, one would basically have to compare this with a customer base of 7 million in the 1,000 branch offices mentioned above. It can easily be imagined that the existing physical infrastructure in German cities would not have allowed a run of 3.5 million people in a network of branch offices within a three-hour timeframe. This is just a minor indication and maybe an odd example of what we will see in the future as we open up our product offerings into the Internet world, we will see peak loads of dramatic impact.

New affluent segment

When looking at the European integration, basically this disruptive

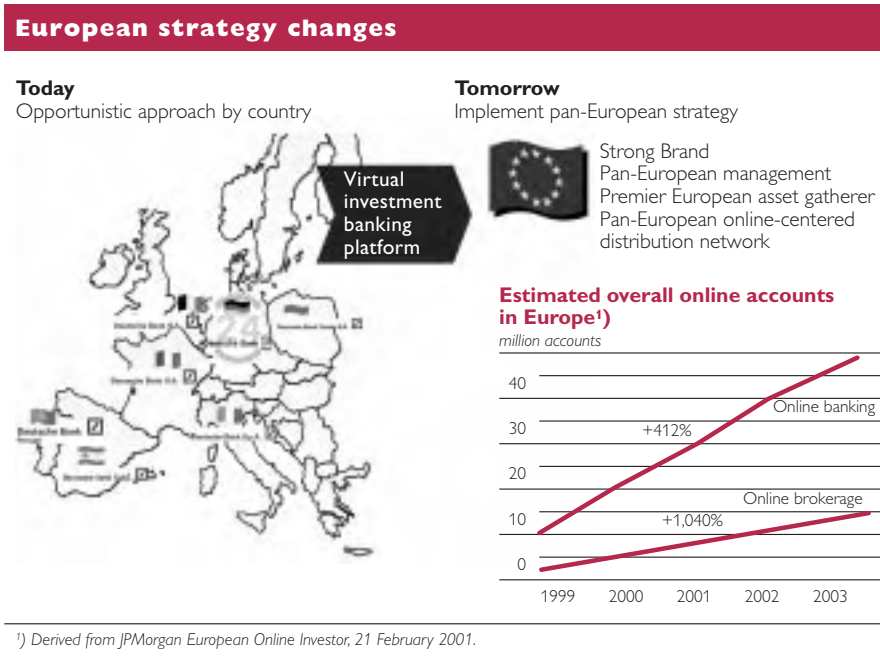
change of technology also produces something we call the modern affluent segment. It is a sort of reinvention of retail banking, and we believe that 60 million Europeans, who are part of the modern affluent segment, form the first real Europeans in terms of utilising the currency for wealth creation. This is a chance not just for Deutsche Bank, but for anybody who sees Europe as a larger territory to build a value proposition.

Summary

This was a brief overview of what technology does. Joseph Schumpeter has already stated that we live in a world where innovation drives disruptive change and where innovation completely changes existing structures.

It is not about the Old and the New Economy, but about the Old Economy needing the capabilities of the New Economy to build the society of the 21st century.

Figure 10



CHRISTOPHE BISIÈRE



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PROFESSOR,

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CARNEGIE MELLON UNIVERSITY

The Internet and Financial Markets: Island versus Nasdaq

I Introduction

The role of financial markets is to bring together buyers and sellers and discover the prices at which they can trade. A crucial ingredient in this process is the information about the extent to which different agents are willing to buy or sell, and at what price. When information on prices, bids and orders is available only to a small group of market professionals, they enjoy an informational advantage and correspondingly earn rents. They are also well placed to earn rents when they have the privileged ability to produce and disseminate information by posting prices and making offers. These rents are the mirror image of the trading costs borne by less informed parties. Until recently, access to information on prices and offers in financial markets was relatively unevenly distributed. For example, agents physically present on trading floors had faster and better access to information about the trading process than investors remote from the market center.¹⁾

¹ E.g. as illustrated by the analysis of Rock (1990).

In the words of the Chairman of Island Matthew Andresen:

"The so-called time and place advantage has allowed professionals to make very handsome living. Seats on the NYSE sell for millions of dollars thanks to the informational advantage of those physically present on the trading floor." (Andresen, 2000)

Admittedly, Andresen has some vested interest in these matters, which may well be not totally uncorrelated with his views on the relative merits of floors and electronic mar-



kets. The academic literature, however, also offers systematic evidence on the rent-making potential of a small group of financial intermediaries with privileged access to information collection and dissemination.¹)

The advent of the Internet technology brings about a dramatic reduction in the cost of transmitting and exchanging information rapidly between a large number of people. This makes it possible to design more open and transparent market mechanisms, based on widely disseminated information, and the generalized ability to make offers and post prices. In conjunction with this technological revolution, the regulatory change brought about by the 1997 Securities and Exchange Commission (SEC) order display rule, has made it possible for Electronic Communication Networks (ECNs) to offer information dissemination, price quotation and order matching mechanisms for Nasdaq securities.

This evolution raises a number of interesting issues for finance scholars, economists at large and practitioners: What are the economics of the competition between

ECNs and more traditional market participants? Do the limit orders placed on ECNs compete away the rents of Nasdaq market makers, and how? Does the presence of ECNs lead to a free-entry/perfectly-competitive market situation, as in Glosten (1994)?

To study these issues, we focus on Island, the second largest ECN, which offers a particularly interesting market structure: It is operated as a fully transparent limit-order market, and its book is freely observable to all on the Island website. To conduct our analysis, we combine two sources of data for actively traded Nasdaq stocks, downloading the sequence of trades and order book dynamics from the Island site as well as acquiring the Nastraq dataset. To take into account the recent decimalization, we are going to download new Island data and compare it to new Nasdaq data.

Based on the March 2000 sample, we obtained the following preliminary results:

The best Island quotes were quite frequently strictly better than the Nasdaq quotes. Orders placed on Island often bettered the Nasdaq touch by using a finer price grid than the Nasdaq grid. This suggests that the coarseness of the Nasdaq grid, and possibly strategic market makers' behavior, resulted in excessively large Nasdaq inside quotes. Responding to this situation, Island limit order traders undercut the Nasdaq quotes. This raises the issue of the profitability of such a competitive strategy. Was it profitable or loss making to undercut the Nasdaq quotes? To answer this question we analyzed the profitability of executed Island limit orders.

On average limit orders placed on Island earned positive profits. In

1 See for example Christie and Schultz (1994) or Chen and Ritter (2000).

fact, these profits were greater when the Island orders matched the Nasdaq quotes than when they undercut these quotes. These preliminary results suggest that the competition to supply liquidity on Nasdaq and Island is closer to the Cournot type of imperfect competition analyzed by Bernhardt and Hughson (1997) and Biais, Martimort and Rochet (2000) than to the free-entry/zero-profit equilibrium analyzed by Glosten (1994).

In the next drafts of the paper we will undertake more systematic statistical tests of the free-entry equilibrium hypothesis. We also will use data from Island and Nasdaq, collected after both markets were decimalized. We will thus study if decimalization makes the Nasdaq spread tighter, and if, after the decimalization, limit orders placed on Island continue to often better the Nasdaq quotes and to earn expected positive profits.

2 Institutional Environment

ECNs are e-brokers, relying on web-based platforms that collect limit and market orders, and match them or display them on Internet-based order books. In 2000, they have been estimated to capture 26% of the dollar volume of Nasdaq trading (McAndrews and Stefanadis, 2000). The major ECN, Instinet (INCA), was estimated to represent 14% of the trading volume on Nasdaq in March 2000 (see *The Economist*, May 20, 2000), while Island (ISLD) amounted to 6%, and Redi Book, B-trade (Bloomberg's Tradebook), Brut and Archipelago (ARCA) accounted for less than 2% each. Other ECNs include Attain (ATTN), Pim Global Equities (NTRD) and Strike Technologies (STRK).

While ECN compete with the traditional source of liquidity on Nasdaq (i.e. market makers), they are brokers: They do not take proprietary positions, but simply handle and display their customers' orders. Since they are regulated as brokers, they are subject to the best execution rule, which means that they cannot conduct trades away from the current best market prices.¹⁾ This best execution rule implies that price priority is enforced on Nasdaq.

Island is a web-based transparent limit-order book. It can freely be viewed in real time through the Internet. When an order is transmitted to Island, if it is not immediately marketable, it is stored in the Island order book. The best Island bid and ask quotes are displayed on the Nasdaq screen, along with the best quotes of ECNs and market makers. If the order received by Island is marketable, it is executed at the best market price. As mentioned above, price priority is enforced between Island and the other ECNs as well as Nasdaq market makers' quotes. Hence, if the Island quotes are strictly dominated by other quotes in the Nasdaq architecture, the order is channeled away from Island to receive execution. However, time priority is not enforced between ECNs and Nasdaq market makers.

Interestingly, there is no evidence that the trading process managed by ECNs is systematically free riding on price discovery achieved by the traditional market participants (the Nasdaq dealers). Quite to the contrary, Huang (2000) shows empirically that ECNs



1 Island and Archipelago have applied for the status of exchanges, which has not yet been granted.

are important contributors to the price discovery process.

Until April 2001, the Nasdaq tick size was $\frac{1}{16}$ and the Island tick size was $\frac{1}{256}$. The thinner price grid on Island made it easier for traders placing orders on Island to undercut Nasdaq market makers' quotes. Note however that Island quotes displayed and "advertized" on the Nasdaq screen were not shown at their actual price (quoted on a thin grid) but at rounded prices (from the Nasdaq grid). For example, if the best ask for stock XYZ on Island was USD 1 and $\frac{1}{24}$, it was displayed on Nasdaq at USD 1 and $\frac{1}{16}$. Since April 2001, Nasdaq and Island operate on a decimalized basis where prices are quoted with a three-digit precision.

3 Data

We downloaded a continuous record of the Island book from the Island website from March 8 to March 16, 2000. We collected this data for 8 stocks: COMS, Cisco, Dell, EGroup, Intel, Microsoft, QCom, and Sun. For these 8 stocks, we also use the Dealer Quotes (DQ) file and the Inside Quote (IQ) file, purchased from Nasdaq.

Currently, for the exploratory analysis of spreads and order placement we are only studying a pilot sample of two stocks: Dell and 3Coms. We retain the other stocks as a holdout sample. This will give us an opportunity to examine the out-of-sample robustness of our results.¹⁾ For the analysis of profits, where we are guided by theory, the need to keep a holdout sample is less severe. So we analyze the data from all stocks in our sample to gain statistical power.

We consider data starting at the opening of Nasdaq (at 9:30 a.m. or

a few minutes before) and ending at the Nasdaq close at 4:00 p.m. (because of a data feed problem, for March 10, we have data only between 9:30 and 2:30).

For the sample period, there are 26,487 trades for Dell, with an average per-trade dollar value of USD 25,493. For 3Coms the total number of trades is 13,023 with an average value of USD 25,281.

One advantage of the Island data (downloaded from the Island website) is that it is not rounded to sixteenths (unlike the ECN quotes reported in the Nasdaq DQ file). Hence we can study the use of fine ticks by Island traders. This is less relevant now that Island and Nasdaq are decimalized.

4 Spreads

4.1 Spreads on Island and Nasdaq in March 2000

In this section we analyze and compare the spreads prevailing on Island to the Nasdaq inside touch in March 2000. Note that the latter incorporates the Island quotes. Consequently, if the grid size was the same in the two market segments, the Nasdaq inside touch would, by construction always be at least as good as the Island spread. In this context, the issue would be: How much better is the Nasdaq inside touch? Until 2001, however, the grid was thinner on Island than on Nasdaq. Therefore, if the coarseness of the Nasdaq grid was a binding constraint and the Nasdaq spreads correspondingly too large, one would expect limit orders to be placed on Island inside the Nasdaq touch. We investigate these issues below.

First consider the inside Nasdaq spread in March 2000 (obtained from the Nasdaq IQ file). For Dell, it was equal to one tick, i.e. one six-

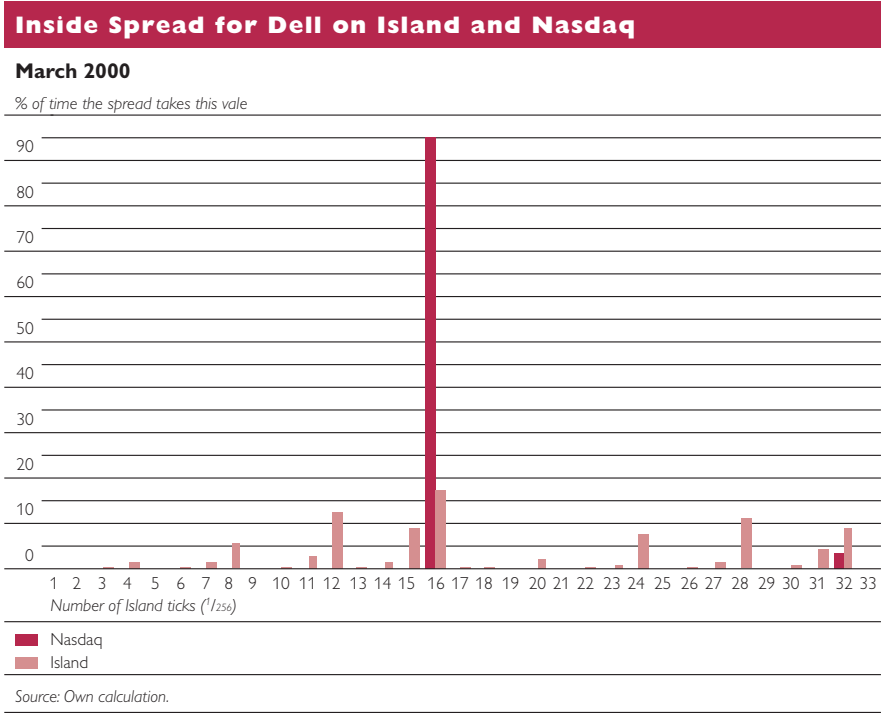
¹ This is similar to the approach taken in Biais, Hillion and Spatt (1995).

teenth, most of the time (94.99%). Other realizations were 0, only 1.76% of the time, two ticks, 3.22% of the time, and three ticks, only 0.03% of the time. Correspondingly, the time-weighted average of the Nasdaq inside spread for Dell (reflecting market makers' quotes and ECNs' rounded quotes) was USD $16.242/256$, which is very close to one tick, and the mode and median were exactly equal to one sixteenth. For 3Coms, the distribution of the inside spread was a little less concentrated. The inside spread was equal to 0 only 1.3% of the time, one tick 80.77% of the time, two ticks 13.94% of the time, and three ticks 2.977% of the time. Correspondingly, the time-weighted average spread was $19.5/256$, while the median and mode were just one tick.

Now we turn to the inside spread prevailing on Island for the same two stocks and the same period. For Dell, the most frequent occurrence was the Nasdaq tick, one sixteenth. But this occurred much less often

(17.47% of the time) than for the Nasdaq inside quote. The two next most frequent sizes were $12/256$ (12.26% of the time) and $28/256$ (11.16% of the time). Interestingly, the spread was often equal to $15/256$ (8.7% of the time). This is likely to have occurred mainly when the Nasdaq spread was one sixteenth and an Island trader undercut it by $1/256$. The spread was also often equal to $31/256$ (4.16% of the time). This is likely to have occurred mainly when the Nasdaq spread was two sixteenths and an Island trader undercut it by $1/256$. The time-weighted mean spread was $23.64/256$, while the mode and the median were equal one sixteenth. Figure 1 offers a graphic representation of these results. For 3Coms similar patterns were observed. The most frequent values of the spread were on the Nasdaq grid: $32/256$ (14.33% of the time) or $16/256$ (9.19% of the time), and just one tick below these values: $15/256$ (6.92% of the time) or $31/256$ (8.95% of the time). The time-

Figure 1

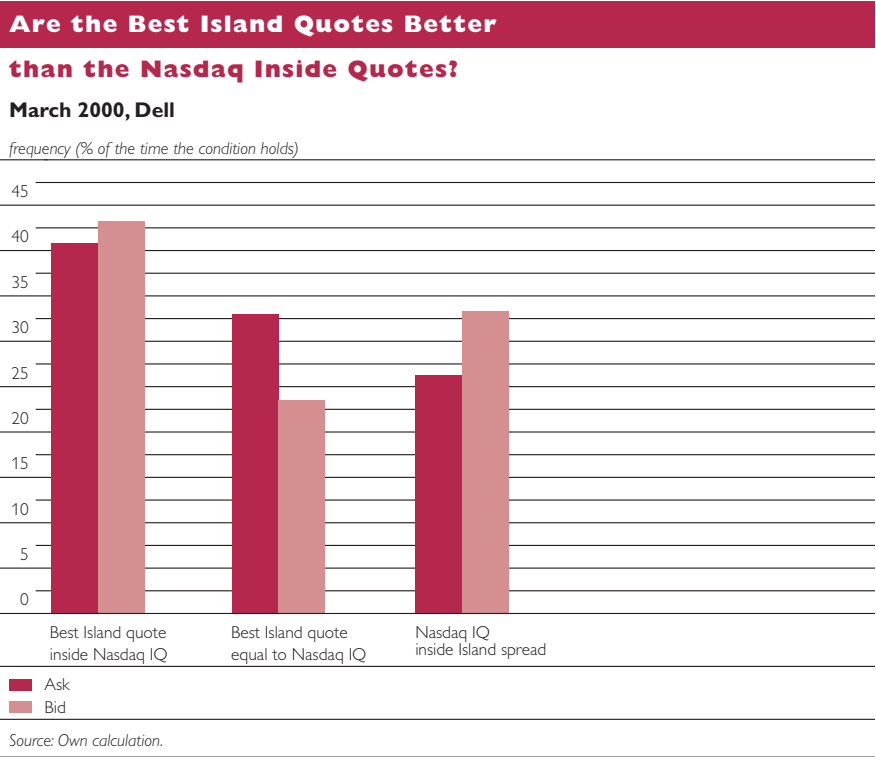


weighted average spread was $^{55.9}/_{256}$, the median was $^{47}/_{256}$, and the mode $^{32}/_{256}$.

To obtain more insights on the comparison between the Island and Nasdaq spreads we merged the Island data file and the Nasdaq IQ data file. This raises synchronicity problems. First, there are points in times when there is more than one change per second in the Nasdaq file. In this case, as the Nasdaq clock operates on a second-by-second basis, we cannot tell which was the last change, and consequently we cannot tell which state of the IQ spread prevails after this second. In this case we draw randomly one of the data points in that interval. Second, the Nasdaq and Island clocks may not be perfectly aligned. Subject to these caveats, we obtain the following results for our March 2000 sample for Dell: The best Island bid quote was better than the best Nasdaq (IQ) bid 43.19% of the time, while the

Nasdaq bid was better than the Island bid 33.43% of the time, and the two bids were equal 23.38% of the time. The best Island ask quote was better than the best Nasdaq (IQ) ask 40.97% of the time, while the Nasdaq ask was better than the Island ask 26.18% of the time, and the two asks were equal 32.85% of the time. For 3Coms, the best Island bid quote was better than the best Nasdaq (IQ) bid 31.05% of the time, while the Nasdaq bid was better than the Island bid 45.38% of the time, and the two bids were equal 23.56% of the time. The best Island ask quote was better than the best Nasdaq (IQ) ask 17.29% of the time, while the Nasdaq ask was better than the Island ask 47.15% of the time, and the two asks were equal 35.57% of the time. The Island best quotes are much less frequently better than the Nasdaq inside quotes for 3Coms than for Dell. This is likely to reflect the fact that, as Dell is a very liquid stock,

Figure 2



its natural spread is very tight, so that the price grid constraint imposed by Nasdaq is more often binding.

Since the Island quotes are incorporated in the Nasdaq inside quotes, the former can be better than the latter only when they are on a finer price grid than the Nasdaq grid. This offers an opportunity to assess the magnitude of the problems induced by synchronicity. When the best Island bid (resp. ask) is better than the best Nasdaq bid (resp. ask), it should be on a finer tick than the Nasdaq grid. In our data, this is the case for Dell 84.60% (resp. 84.63%) of the time. This suggests that in 15% of the cases synchronicity problems induce mistakes in our best quotes comparisons.

4.2 Implications for Market Design

Tick Size

Our results suggest that the one-sixteenth grid used on Nasdaq did constrain spreads. This constraint, possibly in conjunction with strategic market makers' behavior, resulted in an excessively wide Nasdaq touch. Island limit order trades reacted to this situation by undercutting the Nasdaq inside quotes, resulting in the Island spread often beating the Nasdaq touch.

These results highlight a tradeoff faced by the Nasdaq market makers. On the one hand, keeping a relatively coarse grid size (one sixteenth) was a way to maintain artificially high spreads and earn rents. On the other hand, keeping such a coarse grid made it easier for Island to compete the order flow away from Nasdaq.

Rounding

Our results are consistent with the findings by Simaan, Weaver and Whitcomb (1998), that ECNs often establish the inside market and are less likely to quote odd-sixteenths.

Our results differ from and complement those of Simaan, Weaver and Whitcomb (1998) because we analyze data on unrounded Island quotes, downloaded from its site, rather than rounded quotes from the Nasdaq DQ file. Hence, we find more frequent occurrences of the situation in which Island improves the Nasdaq market makers quotes, and we document undercutting by Island orders on a finer grid than the sixteenth grid.

To better document the impact of the rounding procedure on the quotes observed on the Nasdaq system, we conducted the following experience. Using the Island data for March 2000 (from the Nasdaq DQ file), we computed the mean spread on Island for Dell. It was equal to USD $^{31.49}/_{256}$. Similarly, the average Island spread for 3Coms computed using the Nasdaq DQ data ($^{67}/_{256}$) was greater than its Island data counterpart. This shows that the rounding procedure made the Island quotes much less attractive than they actually were. This confirms our remark above that Island traders relied on other ticks than sixteenths to quite a large extent.

This can be interpreted in terms of competition between markets: Rounding the Island quotes enabled Nasdaq to get around price priority constraints, and reduced the ability of the ECN to advertize good quotes and thus attract orders. The latter made it very important for Island to use another vehicle than Nasdaq screens to disseminate information. Hence its excellent website.



5 Profits

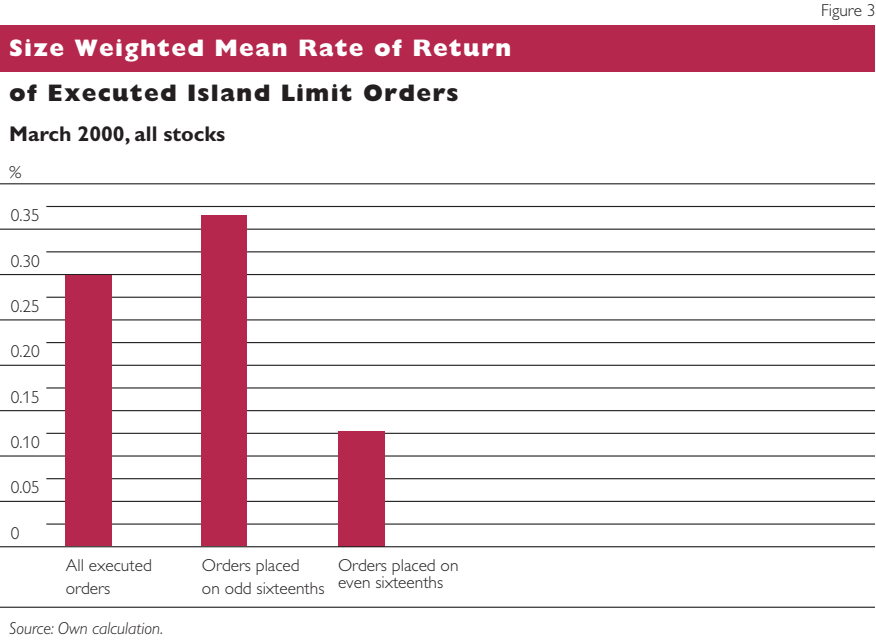
To compute profits earned by limit orders placed on Island we take the following steps: When there is a trade in the Island data, we examine the Island order book to find out if an Island limit order has been hit at this point in time. If no Island limit order has been hit, we infer that the trade corresponds to a market order placed on Island that has been immediately executed against quotes posted outside Island. On the other hand if we identify limit orders executed on Island, we compute their profit taking the closing price for that day as a proxy for the fundamental value. Note that we consider all the limit orders present in the Island book that have been hit and do not restrict the attention to the orders at the best quote.

We report descriptive statistics (averages and variances) on the rates of return earned by executed limit orders for the 67,416 trades in our March 2000 sample. Overall, the size-weighted average rate of return of executed limit orders for the 8 stocks in our March 2000 sample

was: 0.299%, while the variance was: 0.138%. The average rate of return earned by orders placed on sixteenths (the Nasdaq grid) is: 0.366% (with variance equal to 0.151%), while the average rate of return earned by orders off the Nasdaq grid is: 0.127% (with variance equal to: 0.104%). This is graphically represented in figure 3.

In line with the theoretical results of Bernhardt and Hughson (1997) and Biais, Martimort and Rochet (2000), these preliminary results are consistent with the view that limit orders placed on Island earn profits. While we have not carried statistical tests yet, this suggests that the free-entry equilibrium hypothesis might be rejected.

Interestingly, limit orders are found to be more profitable when they are placed on the Nasdaq grid (and thus are likely to be matching the market makers quotes) than when they are placed on a thinner grid (and undercut the Nasdaq market makers quotes). This suggests that while undercutting may well enable Island traders to cap-



ture more order flow, it leads to a reduction in profits per share. This is consistent with the Cournot oligopoly flavor of the equilibrium characterized in Biais, Martimort and Rochet (2000) for a finite number of liquidity suppliers.

The zero-profit/free-entry equilibrium theoretically characterized by Glosten (1994) offers an addi-

tional empirical implication: When market orders only hit the first price level in the book, the corresponding limit orders are expected to be profitable. In contrast, when the market order is executed against several consecutive levels in the book, the limit order placed at the first level is expected to be unprofitable.

Figure 4

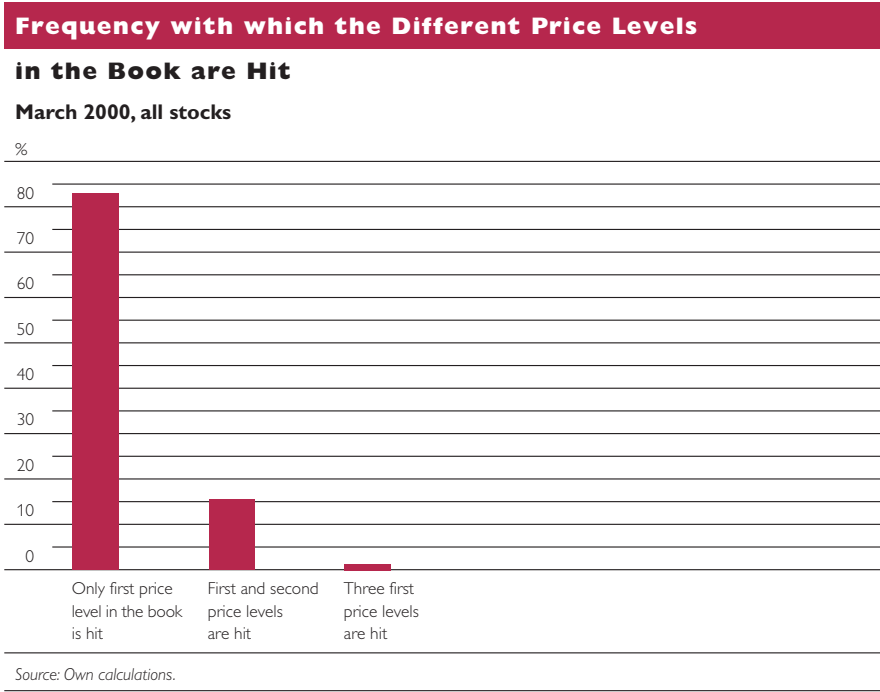
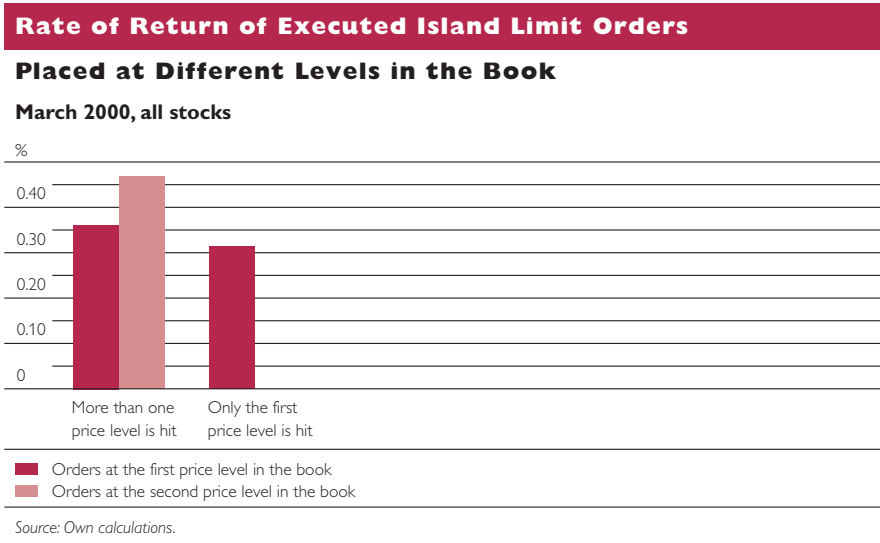


Figure 5



In our March 2000 sample, 82.7% of the trades hit only the first line of the book, while 15.5% hit the first and second lines, and 1.5% hit the first three lines. This is graphically represented in figure 4. Figure 5 depicts our results on the profitability of limit orders placed at different levels in the book. When only the first price level is hit, the average (size-weighted) rate of return of the executed limit orders is 0.313% (with a variance of 0.142%). This result is consistent with the theory,




which predicts that when only the first price level is hit, the expected profit earned by the executed limit orders is positive. When more than one price level is hit, the average rate of return of the orders present at the first price level is 0.361% (with a variance of 0.151%), and the average rate of return of the orders placed at further price levels is 0.467% (with a variance of 0.139%). This result is in contrast with the predictions of the zero-profit/free-entry equilibrium, according to which, when the market order walks up or down the book, the limit orders that are hit the first are loss-making on average. This provides further evidence against the hypothesis of perfectly competitive liquidity supply. Our result that limit orders placed at the first price level in the book earn greater average profits when the market order walks up or down the book is a little puzzling. Maybe the sample of orders that are exe-

cuted alone include a group of out-of-line orders picked off by savvy traders.

6 Conclusion

The goal of this paper is to analyze the competition to supply liquidity on Nasdaq and Island. Our preliminary results suggest that, before the decimalization, the following market conditions prevailed:

- Nasdaq spreads were constrained by the tick size and were correspondingly excessively wide.
- Reacting to this situation, limit-order traders used Island as a platform to compete for the supply of liquidity. To do so they often undercut the Nasdaq inside quotes by using the finer Island grid.
- In contrast with the implications of free-entry equilibrium, limit orders placed on Island earned positive profits. While both the limit orders undercutting the Nasdaq quotes and those matching them were profitable, the latter were more profitable than the former. In sharp contrast with the free-entry equilibrium implications, even when market orders walk up or down the book, the executed limit orders placed at the first price level in the book still earn non-negative profits.

Taken together these results suggest that prior to the decimalization Nasdaq and Island spreads were wider than warranted by the zero-profit/free-entry equilibrium theoretically characterized by Glosten (1994). This in part reflected that the coarseness of the Nasdaq grid was binding. It's also likely that it reflected the strategic behavior of liquidity suppliers on Nasdaq and Island. 

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Comments on

Hermann-Josef Lamberti,

“New Technologies and Financial Markets

in the Long Term”

and

Christophe Bisière, Bruno Biais

and Chester Spatt,

“The Internet and Financial Markets:

Island versus Nasdaq”

I welcome the opportunity to offer a few comments on the thoughtful and interesting papers by Hermann-Josef Lamberti and by Christophe Bisière, Bruno Biais and Chester Spatt. I do so as a humble financial services regulator, rather than as an academic or an expert on new technologies. But I hope that a regulatory perspective has some useful insights to offer.

I therefore begin by explaining the Financial Services Authority's (FSA) approach to the development of e-commerce within the financial sector and to the prospects for its continuing rapid growth. I comment on the papers within this context.

As a single regulator, the FSA has four statutory objectives:

- maintaining confidence in the financial system,
- promoting public understanding of the financial system,
- securing the appropriate degree of protection for consumers and
- reducing the extent to which it is possible for a regulated firm to be used for financial crime.

In pursuing these four objectives we are required to have regard to seven considerations (what we call our "principles of good regulation"). These include having regard to the responsibilities of the senior management of firms, the desirability of facilitating innovation and competition and the importance of the international character of financial services.

Indeed, the FSA is probably unique as a financial services regulator in having a statutory objective to promote public understanding of the financial system, and a statutory duty to have regard to the desirability of innovation and competition when pursuing our four statutory objectives.

It is against this background, and the need to set priorities in the use of our scarce resources, that the FSA

has undertaken a major review of the appropriate regulatory response to the growth of e-commerce (Financial Services Authority, 2001b). This reflects the potentially enormous importance of e-commerce to all aspects of the activities of regulated firms, across all sectors of the financial services industry.

In our work on e-commerce we focused on opportunities as well as risks. Although this may sound like a novel approach for cautious and risk-averse regulators, it is driven by the objectives and principles set out above. In particular, our objectives relating to consumer awareness and consumer protection, and the principles relating to innovation and competition, lead us inexorably to the conclusion that we as a regulator should be seeking to harness rather than to hold back the forces of technological change. With apologies for using this analogy in a land-locked country such as Austria, we are looking to exploit wave power rather than to attempt, like King Canute, to hold back the tide.

Financial services firms should benefit from opportunities to exploit competition and innovation, from a lower cost base, from wider and more efficient distribution channels and from better informed consumers who should be better able to identify and purchase good value products.

For consumers – and we take account here of both retail and corporate consumers – e-commerce offers at least the prospect of access to a wider range of products, to better value products, to additional and more accessible sources of information and advice on financial matters, and to all the other benefits of a more competitive and innovative market for financial services. But how far this prospect has been, or will be, translated into reality remains uncertain.

Despite its rapid growth, the use of e-commerce by retail consumers remains limited, not least in the area of financial services. Different surveys offer different results, but around 30% of households in the UK are “Internet enabled”, up from just 5% in 1997. However, only a small subset of these potential users are logging on for reasons connected with financial services. The highest estimate is that a quarter of the 30% (so 8% to 9% of all households) have used the Internet for financial services purposes. Most of the retail sector use it as a source of information and advice on financial products, or to undertake straightforward online banking and share dealing transactions – exploiting the lower costs and greater convenience of e-commerce.¹⁾

A second dose of reality here is that consumer surveys show that although consumers tend to be suitably cautious in buying from unfamiliar names and do not use information from e-media in isolation from other sources, many consumers do not understand properly the risks inherent in e-commerce transactions and tend to place too much reliance on information that appears to have been “personalised” (which is easier for firms to deliver electronically). I will return to some of these consumer issues when I comment on the paper by Hermann-Josef Lambert.

I do not know whether, or to what extent, these benefits for firms and consumers have raised the trend rate of potential output or productivity growth. There is an active debate under way on this.²⁾ But the balance of considerations does seem to be firmly on the side of the benefits here.

The FSA has therefore taken a positive approach to the development of e-commerce in financial services. We have of course insisted that regulatory entry standards must be met, and that regulatory requirements are met on a continuing basis once a firm is authorised, just as we insist on this for any other delivery channel. But we have not imposed any restrictions beyond this. And in Europe we argued against the idea that the provision of e-money should be confined to credit institutions. E-commerce financial services have expanded rapidly in the UK. Both new entrants and existing firms have moved into e-banking, e-broking and other forms of e-business. One-third of the 50 or so electronic alternative trading systems in Europe are in the UK.

But significant risks for consumers do nevertheless arise from e-commerce. Consumers and/or market confidence more generally may suffer as a result of:

- Losses in firms resulting from a failure in key e-commerce systems, from an inability to cope with the customer-driven volume of demand, and from failures in an outsourced function, in other internal systems and controls and senior management oversight, and in strategic choices. In many respects there is nothing new here, but e-commerce has created a public expectation of 24-hour availability, seven days a week; and it has made it more difficult for firms to predict or to control volumes of business.



1 See Durlacher (2001) and research commissioned by the FSA.

2 See, for example, the recent contributions by Gordon (2000) and Jorgenson (2001).

- Fraud (which may be against firms or their customers), breaches of security procedures, criminal or terrorist attacks on systems (including payment, settlement and clearing systems) and other types of financial crime.
- Consumers may find it less easy to tell who they are dealing with over the Internet and similar channels, whether firms are regulated, and what rights they have if things go wrong. This risk is amplified by the global nature of e-commerce, which challenges the traditional way in which countries exercise regulatory control over the provision of financial services. The initial regulatory response to this risk was for countries to adopt a “directed at” test, under which e-commerce promotions had to meet local requirements in each of the countries they were targeted at. The EU has taken a single market approach and gone further through the e-commerce directive, under which the provider of e-commerce services in most areas of financial services will be regulated in the country where the provider is based, rather than in the country where the consumer is sitting at his or her terminal.
- Market manipulation through the (mis)use of chat rooms and bulletin boards.

The main conclusions from our work on e-commerce have therefore centred on:

- the need for adequate IT systems and controls to be in place in providers of e-commerce services,
- the need for consumers to be able to understand better how to use the greater volume of information and transaction

opportunities available to them, to understand the nature of the transactions they are entering into and to take appropriate security measures,

- the need for continuing surveillance of the development of e-commerce, both domestically and internationally and
- the need to exploit the opportunities offered by technological developments to make regulation itself more efficient and effective. It will be possible to monitor and supervise firms and markets more efficiently and effectively, and to make information available more effectively to firms and consumers (where we already have an initiative underway to provide comparative information on a range of financial products to consumers through our website). There might also be a case for introducing identifiable and restricted domains for regulated firms so that consumers can tell immediately if a service provider is a regulated firm, or to insist that a hyperlink is provided to the website of a firm’s regulator, although we are not yet persuaded that these initiatives can be justified on cost benefit grounds.

The paper by Christophe Bisière and his colleagues provides an example of the impact that new entrants, exploiting new technology, can have both directly – through the improved or cheaper service they can provide to customers – and indirectly through changing the behaviour of incumbent firms. It is a reflection of how rapidly market developments are occurring when we begin to think of Nasdaq as the “traditional incumbent” in an increasingly contestable market, but that is precisely the situation that this paper explores.

And the incumbent has duly changed its behaviour (here in the form of moving to decimalisation) in an attempt to retain market share – although in practice this was at SEC insistence as part of a general switch to decimalisation in US markets, rather than directly the result of specific market forces or even academic analysis. It will be fascinating to see what impact this has had on the ability of Island to compete effectively, as promised in the next version of this paper.

These direct and indirect impacts are to be found throughout the financial sector and beyond. To give just one example, Brown and Goolsbee (2000) found that, in the life insurance industry, comparison shopping on the Internet has driven down the prices charged by offline providers.

But even where the incumbent responds to competitive pressures, the impact of new technologies on entry costs, on the speed of undertaking transactions or of processing and communicating information, and on global reach is always likely to generate new areas of contestability. The Schumpeter view of “creative destruction” is perhaps being echoed here in a more limited way through “creative fragmentation”.

I am less sure that the results in the paper on the profitability of trading through Island tell us very much. By having a finer price grid, Island effectively allowed traders to step inside the Nasdaq quotes in order to effect a transaction. But if you give one group of traders an option to step ahead whenever they want to, it is not surprising that when they choose to exercise this option they make money. Equally, I doubt that the results in the paper can tell us anything about price discovery – moving fractionally inside the Nasdaq quote in order to effect a trans-

action is not really price discovery in the sense of forming the inside quote itself, but more akin to free riding.

Research of this type is however potentially relevant to the potential impact of market fragmentation on liquidity, on the efficiency of price formation and discovery, on the transparency of prices and trades, and on whether a market might be more prone to disorderly behaviour. Most work in this area suggests that, so far at least, the advantages of competition and innovation are considerable, and that market forces have themselves generated solutions to the potentially detrimental impact of fragmentation on liquidity, price formation and transparency.

Nevertheless, regulators must remain vigilant. The FSA issued a discussion paper (Financial Services Authority, 2000) last year on the impact of alternative trading systems, and on how regulation should adjust to the blurring of the distinction between traditional exchanges and alternative trading systems. And we have just issued another paper (Financial Services Authority, 2001a) on how the “best execution” rule might be amended to reflect market fragmentation.

The paper by Hermann-Josef Lamberti makes some important points on the impact of new technology on existing financial services. Almost irrespective of technological developments, consumers will still need advice and information; risks will still need to be transformed so that they can be transferred – at a price – to those willing to take on these risks; and transactions will still need to be processed. And it is already clear that the response of many consumers, especially retail



consumers, to technological developments is to place their trust in established brand names and to use a combination of high-tech and low-tech sources of services. This has been to the advantage of existing large suppliers, who have been able to grow their e-commerce services to consumers alongside the more traditional bricks and mortar approach. And indeed we have seen much the same thing in many non-financial services markets as well.

This is not to deny the important



role that many purely e-commerce based entrants to the industry have played in contesting these markets and in forcing the established firms to adjust in response. But one impact of the importance placed by many

retail consumers on trust and brand names – irrespective of whether this is sensible and rational behaviour – has been to reduce the degree of contestability in these markets and to limit the potential impact of technological advances in reducing information asymmetries.

One potential advantage of technology is the use of automated channels of advice to consumers. This automation could be used to tailor services and products to a customer's needs, based on their profile and personal preferences. This sounds enticing, but is it all good news for the consumer? As Vulkan (1999) discusses in his paper on intelligent agents, there are two particular problems here.

First, what information will the automated advisor gather before giving advice to individual consumers? How will it ensure that consumers are advised to buy products that are

genuinely suitable to their needs? Second, whose products will the automated advisor search across before making its recommendations? Is Deutsche Bank going to set itself up as a genuinely independent advice service, offering advice on the full range of services and products provided by its closest competitors? And in these days of the euro area, let alone the global marketplace, to what extent will it select from services and products provided by firms in other countries? How many Austrian providers will it search across?

As for the products that a firm like Deutsche Bank might itself create for its customers in a high technology world, a series of papers by Armstrong and Vickers (1999) and by Ulph and Vulkan (2000a and 2000b) consider the implications of the possibilities arising from the use of technology to process consumer specific information and to generate differentiated products at low cost. Firms may be able to sell the same service or product at different prices to different consumers or groups of consumers (first degree price discrimination); to offer differentiated products while retaining economies of scale (mass customisation) and to sell different products at different prices to different consumers at different prices (second degree price discrimination). An interesting battle may arise between this "enhanced surplus extraction effect" and the intensified competition that should also result from the new technology. And the consumer might not be the winner.¹⁾

Meanwhile, and related closely to the impact of technology on cost, financial services providers and non-financial firms alike have moved increasingly to the outsourcing of

¹ See also the *Office of Fair Trading* (2000).

many of their functions. Whereas this used to be confined mostly to the outsourcing of “back office” functions, this is extending rapidly into middle and front office functions as well. Contestability, and the inexorable effects of declining marginal costs, are taking their predictable effect on functions that the consumer does not see, or does not even realise have been outsourced. And the FSA is becoming increasingly concerned about the low standards of diligence and responsibility exhibited by many regulated firms when outsourcing their key functions.

I turn finally to the longer term – the “now for something completely different” scenario. I cannot predict what the future holds here, but we must expect to see new products and services in the financial sector, and new channels through which both existing and new products are distributed. Mergers among the larger players are increasing the market shares of the largest firms; but equally there is no shortage of new entrants to financial markets. Some of these entrants are small new firms, but others are large firms diversifying from other activities. For both types of new entrants, new technology is reducing the cost of entry and thereby making markets more contestable. So even if there are fewer and larger firms, their dominance in terms of market share may not be so easy to turn into profitability as new entrants constantly snap at their heels. And some of the dominant players in the future may not be the same firms as those that have large market shares today.

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Comments on

Hermann-Josef Lamberti,

“New Technologies and Financial Markets

in the Long Term”

and

Christophe Bisière, Bruno Biais

and Chester Spatt,

“The Internet and Financial Markets:

Island versus Nasdaq”

1 These comments have greatly benefited from discussions with Hans Christiansen, OECD Directorate for Financial, Fiscal, and Enterprise Affairs. The views expressed here are those of the author and do not necessarily correspond to those of the OECD.

Introductory Remarks

Since the early to mid-1990s, advances in communication technology have left their mark in all sectors of the economy. In fact, whether this also calls for a new paradigm in economics was the topic of last year's OeNB Economics Conference. How these new technologies have shaped and will shape the financial sector are the issues of the current session, and these issues are addressed in the papers presented by Hermann-Josef Lamberti and



Christophe Bisière (the latter co-authored by Bruno Biais and Chester Spatt). While the focus and scope of both presentations is different, there is a common denominator: the Internet. In my comments I will quickly sketch the new landscape, and by doing so refer to the specifics covered by the papers.

Even though financial institutions have for decades communicated via electronic networks, open network architectures such as the Internet allow for a new quality of their interactions. And this is not only true for business-to-business (B2B) relationships, but also for those with consumers (B2C). Enhanced platforms and Internet penetration will allow households to actively participate in financial transactions, and increased speed (in terms of computing power as well as network connections), transparency, and participation could help to make financial markets more efficient. So a modest view that the Internet serves as merely another channel of communication and distribution will certainly be challenged by the new developments, which might revolutionize the financial sector as a whole.

Business Models

However, as also stated in Lamberti's presentation, one should bear in mind the obstacles to those new developments and that not all financial markets and financial products lend themselves easily to an online Internet application. On the demand side, customers choose new technologies generally on the grounds that they are cheaper, allow for fast and real-time access, but such advantages are weighed against concerns about security. On the supply side, by introducing new technologies, companies expect to cut costs and attract new clients (or at least retain their client base in the face of competitors offering e-services). The financial business will not only have to be selective with regard to existing business models (choosing which services to adapt for the new technology), but also creative in developing new business models. From today's standpoint, what can be said in assessing those business models?

E-money

E-money schemes have reached considerable value in some countries, but still do not meet their expectations with regard to growth and diffusion. However, as the transactions involved constitute pure transfers of funds rather than trade in financial market services, e-money will not be our issue in this discussion.

Banking

So far, pure Internet banks have – at least for the time being – not been a great success. If at all, the winners have rather been the online “clicks and mortar” presences of entrenched (“bricks and mortar”) financial institutions. Even if they come as separate entities (which can also be supplemented by nonbanking services), customers prefer them to be linked to banks well known to them.

E-banking services are demanded on grounds of convenience, not price. Thus, for the banks the optimal strategy is offering a mix of traditional and online services. Even though this usually comes at an additional (initial) cost to the bank, it will have to be weighed against the benefit of retaining (or even enhancing) client loyalty. Of course, the overall success of such strategies will depend on the Internet penetration in a given country, but even if this is low, active policies embracing the new technologies can overcome those disadvantages (Spain and Portugal, both with a low number of Internet connections, but relatively high e-banking activity, might serve as examples).

Securities Services

Online brokers have gained large market shares, and are on the upbeat given the developing equity culture, increasing wealth, and demand for pension fund investments in many countries. To a lesser extent, this is also true for online asset management, but clients' concerns about security, their demand for personal contact, and uncertainties regarding the security of the online channel lead to a less upbeat development of this sector. Furthermore, given the competitive environment, one should also not be worried by a current wave of retrenchment in response to stiff price competition. Again, the winners are likely to be online services offered by entrenched asset managers (in this context, it should be noted that 90% of online asset management in the United States is with Schwab and Fidelity). It will also be easier for them to cross-subsidize their addition to the traditional distribution channels during a start-up phase.

Mortgage Finance

Mortgage lending is at best at its early stages in electronic finance applications, also as it is among the financial services least suited for online distribution – given its complexity, size, and potential for disputes. However, the Internet has proven useful for mortgage lenders to market their products, as customers can use the net to easily compare various offers and prices. At the moment, in addition to being quite limited in size, the market for online mortgage services is largely confined to the United States, where it is linked to an important degree with the existing network of mortgage brokerage and agents. In the long run, the structures of mortgage finance in the United States and Europe could converge, as European mortgage lenders increasingly see the Internet as an opportunity for outsourcing and reducing costs at the retail level.



Insurance Services

As in the case of mortgage finance and for similar reasons, online insurance is rather marketed than sold online. Some of the predominant channels are point-of-sale portals where insurance is sold together with insurable objects and insurance aggregators providing online price comparisons.

Account Aggregation

Account aggregation (AA) – so far only in its infancy in Europe – is a process by which the so-called aggregators offer customers one-stop shopping for financial and nonfinancial services and are equipped with the information and authorization to address clients' accounts with several financial institutions. This

allows e-finance clients to do all their online transactions via one website. AA is novel in using the Internet for such services, which had already been provided in the B2B segments of the markets, and thus making these services available for households. The start of AA in 1999 was slow, as the major impediment at the time was clients' reluctance to share confidential financial information with relatively unknown Internet companies. In 2000, the aggregators therefore changed strategy to



start offering entrenched financial institutions the backbone technologies to design their own aggregator sites. This in turn could make banks, which are generally still hostile toward AA, more favorable, as they would feel less in danger of losing contact to customers and control over their retail process, and could even expect additional customer loyalty. While AA is not yet wide-spread (in the U.S. one fourth of the e-banking clients), the client base is expected to increase exponentially, and this will also raise new regulatory issues, most importantly creating a level-playing field for the players involved.

Cross-border E-Finance

Cross-border finance is still underdeveloped, and this is true even for the European Economic Area (EEA), where progress toward the single financial market should have facilitated such transactions (within

the EEA, the only bank that has so far developed a business concept based on cross-border delivery is First-E, which operates in four countries from a corporate presence in Ireland). Among the factors holding back intra-EEA cross-border finance are

- the need for further harmonization;
- nonintegration of retail payment systems across the area;
- inconsistencies between the e-commerce directive and some of the specific financial services directives;
- lack of consumer confidence in nonresident e-finance providers and an inadequate level of consumer redress on a cross-border basis; and
- that one-off operations such as opening a bank account are generally difficult for nonresidents, and online clients who reside in other jurisdictions are usually not solicited by banks – or may even not be accepted, as banks may be unwilling to make themselves subject to the dispute settlement mechanisms and customer protection rules of jurisdictions with which they may not be acquainted.

New Platforms and Further Developments

Besides the “traditional” PC with Internet connection, new delivery technologies for e-finance services have to be considered, in particular handheld devices. In general, only a small proportion of e-finance services are suited for the latter, and clients are unlikely to wish to perform a transaction on a mobile device unless it is relatively uncomplicated, or timeliness and instant availability aspects are important. In this regard, obvious candidates for mobile finance (“m-finance”) are

day trading of securities, bill payments, and money transfers.

Personal Digital Assistants

Given the complexity of transactions and secure software necessary, personal digital assistants (PDAs) are less suitable for e-finance (a view also shared among market participants). Even if those devices are becoming increasingly powerful, this view is unlikely to change in the future for PDAs proper – also in the light of the alternatives being developed (notably in the mobile phone market, where new devices merge phone and PDA functions).

Mobile Phones

Besides allowing customers mobile access to voice services provided by their financial intermediaries, mobile phones increasingly allow Internet access. Even though the customer acceptance of WAP (wireless application protocol, the first generation mobile phone Internet access) was disappointing in many countries – mainly due to slow access and a limited supply of services –, second and third generation technologies allowing for more speed and bandwidth (currently, GPRS, and later, UMTS) should be more promising in gaining hold in the distribution of financial services. One advantage of mobile phones is also that they are available to a larger group of people than Internet-connected PCs (Italy can serve as an illustration of this point, where more than half of all e-banking clients connect with their banks via WAP phones). Until now, however, the share of mobile phones in total e-finance is estimated to remain below 2%.

Interactive Television

Given the larger penetration of households with TV sets as compared to PCs, this could be a promising

channel. However, it will remain to be seen whether customers accept managing their personal finances via the family television. Estimates suggest that less than 5% of all electronic banking transactions in 2000 took place using interactive television (iTV) technologies.

Financial Markets, the Internet, and Financial Stability Implications of E-Trading


As hinted at in the paper by Biais et al., the Internet can be expected to have a major impact on the structure and functioning of trading systems. The new technology will render the markets more transparent, potentially more liquid, and thus more competitive. On a technical note, it will be interesting to see the results of their paper once the recent decimalization is analysed under this approach. As the authors themselves suppose, lifting the obviously binding restriction of the coarseness of the Nasdaq grid, the noncompetitive behavior in that market should be reduced or even eliminated.

Automated trading systems that use computer software to match buy and sell orders, the so-called ECNs (Electronic Communications Networks), have expanded rapidly in the United States and also in Europe. The supply-side benefits of cost-efficiency, accelerated trade execution and enhanced price information add to the demand-side development of an equity culture among retail investors. As also stated in the paper, traditional dealers' margins are coming under increasing pressure as bid-ask spreads diminish. One reasonable response, chasing volume, will again be facilitated by electronic trading.

One important impact of electronic trading will be one on market

liquidity, but it is difficult to assess its sign and size *ex ante* (see Crockett, 2001). On the one hand, as electronic trading leads to tighter pricing (lower bid-ask spreads) due to decreasing transaction costs, one dimension of liquidity may be improved. But by reducing bid-ask spreads, electronic trading will tend to reduce the profitability of active market-making, causing financial institutions to scale back this activity, with negative effects on liquidity. Furthermore, as markets may become more fragmented with more competitors crossing the lower barriers to entry, this may again reduce liquidity. Shallower markets may increase intra-day volatility and a less efficient price-discovery mechanism. In periods of market stress, liquidity may dry out even more quickly and exacerbate turbulence. A recent report by the Committee on the Global Financial System suggests that electronic trading in foreign exchange and fixed income securities is centralizing many OTC markets and putting some dealers under pressure. However, the report found no

conclusive evidence that these developments have led to a marked reduction in liquidity (see The Committee on the Global Financial System, 2001).

In any case, such new developments in financial markets will require supervisors to stay alert. But while doing so, their actions should not stifle further developments in that rapidly evolving sector, which may bring about increases in overall economic welfare. As to such wider economic implications of e-finance, notably on economic growth, they have been covered elsewhere at this conference and will also be addressed in the next presentation of this session. 

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Financial Institutions and Technological Progress: An Historical Perspective

I The Field to Survey

As Jules Verne tells us, Phineas Fogg was not only willing but able to travel around the world within 80 days. Not a mean feat in 1873, the year of the greatest financial crash of the 19th century. I have been assigned the altogether more daunting task of presenting an historical perspective of financial institutions as well as technological progress, and that in no more than about 25 minutes. And I can only hope that in the near future a world-wide financial crash of the dimensions of that which started in Vienna on May 8 and 9, 1873, the other side to the story of Phineas Fogg, will be avoided.

In order to make my task a little more tractable I shall only speak of international financial markets and their institutions. I hope this will be

in conformity with our general topic, the single financial market.

Is the development of international financial markets mainly technological at all? And is this development progress? These would actually have to be our first questions. The doubts expressed in these questions I shall leave unanswered, and merely, after a short prelude, approach my topic in four ways. First I shall argue that within (roughly) the last three centuries there were only two or three great innovations which shaped international financial markets. The first was institutional, in fact, and only the latter one or two innovations were technical in the narrower sense. Second, I shall show that there actually was destabilizing institutional retrogression during the 20th century, now happily past. Third, I shall examine the effects of the undoubted growth in size of international financial markets and what that means institutionally. Finally, I shall deal very briefly and sketchily with the speed of financial innovation and the effect which this has on financial markets.

2 Prelude

The Nobel Memorial Prize winner in Economic Sciences of the year 1999, the Canadian (living in Europe) Robert A. Mundell, has published "A Reconsideration of the Twentieth Century" from a mainly financial perspective. Its key sentence, exactly for the case of international financial institutions, runs: "Forget the 75 years between 1914 and 1989!" (Mundell, 2000, p. 327). As far as international financial markets are concerned, most of the 20th century was that rarest of phenomena in the modern world, a period of mere retrogression. Toward the end of the 1930s we retrogressed to the lowest level of international exchange for centuries and to next

to no financial exchange. Not only Keynes' General Theory was conceptually one for a closed economy, we had actually degenerated to a world system of nearly closed economies. "The clue to the twentieth century lies in the links between its first and last decades" (Mundell, 2000, p. 327), Robert Mundell adds somewhat optimistically. True, only the (long) first and the last decade of the 20th century had full international capital mobility. In that respect only these "book ends of the century", as Mundell calls them, came up to the European standard since about 1700. But we have not yet regained the single monetary anchor which the period from 1717 to 1914 had found in gold. Thus, we are still far behind the financial integration of the 19th century.

We have no single reliable monetary standard and thus no common expectational basis. Otherwise how could it have been possible that the world's greatest debtor nation, an economy with a continuous current account deficit since 1982, and, to boot, at record levels in both 1999 and 2000, could convince the world, by a concerted propaganda effort, that because of its unproven "New Economy" its currency relative to the euro is now worth more by 30% or 40% as compared to three years and some 60% as compared to six years ago? Or how could lag-gard Germany convince itself and – unfortunately – many others that the accession of Italy to EMU is a burden on that currency when Italy, in contrast to Germany, was running a substantial international current account surplus up to 1999, with only very small deficits thereafter, thus strengthening and not weakening the euro? We have not yet re-established clear international financial measuring rods, neither the clear standards nor the clear theories

which we had up to 1914. In a field so rife with unproven speculation we have not yet regained the certitudes of the unjustly despised 19th century.

3 Technological Progress?

After these sceptical remarks let us turn to Progress (with the capital P of the optimistic 19th century), to be exact: to technical economic progress, once more a 19th century idea, much propagated by Karl Marx.

For international financial markets there were only two or three technical advances in the wider sense. As P. G. M. Dickson convincingly showed there was a “Financial Revolution in England” around 1700, a revolution substantially preceding the so-called Industrial Revolution (Dickson, 1967). The Dutch already before that and then England in the early 18th century established a truly international financial market, and not only for governments but for private individuals, though, one might say, the two were largely complementary, government securities being bought by private individuals: Sarah Jennings, the widowed duchess of Marlborough, invested in such paper securities, unthinkable only half a century before. In fact, securities, even of governments, for the first time became just that – securities. The Swiss canton Berne invested in English, in French, and in Dutch securities, i.e. widely internationally. For the first time in modern European history there was a genuinely *international market* in stocks and bonds.

At the same time it became a market-based on an international monetary standard, on gold. To a certain degree this came about, curiously enough, through a miscalculation by one of the greatest mathematicians of all times, the then Master of the British Mint, Sir Isaac Newton.

In 1717 Isaac Newton miscalculated the correct silver price to be set for the British gold coin, the guinea. He miscalculated it at 21 shillings. Or, in a slightly kinder interpretation of his advice, the British Parliament chose the wrong option among his several suggestions. The silver price of the British gold coin was set too low so that, quite inadvertently, Britain stumbled into mono-metalism, into the gold standard. Add to that the fact that, of all the nations of Europe, Britain alone had made coinage a completely costless public good, so that the slightly cheaper gold coinage rapidly replaced silver (in the sense of new full weight silver coins). Thus, it was more or less by accident that the leading financial nation of the 18th century, Great Britain, created a truly international market, we may even say a world financial market-based on its newly created gold standard.

This was the first great “technical” innovation in financial markets to be considered here, certainly “progress”, though “technical” in the narrower sense only by courtesy.

With the gold standard international finance had become – for the first time since antiquity – a more or less private commercial business. As an example, the last two Habsburg emperors, Joseph I and Charles VI, could raise four great foreign loans on the London capital market, denominated in British pound sterling: in 1706, 1710, 1735, and 1737, altogether totaling nearly one million – 910,000 to be precise – British pound sterling. These international loans to the Habsburgs amounted in sum to some 2% of one yearly British GDP, thus proving quite substantial even



from a modern perspective. They were much larger than what could be raised in Germany, where Charles VI floated only a loan of one million Reichstaler in 1730, with about 180,000 British pound sterling considerably smaller than the British loans of 1706, 1735, and 1737. That both the German loan of 1730 and the British loan of 1735 were secured on the revenues of Silesia proved not the wisest of decisions after 1741, when Frederick of Prussia alienated that rich part of the Habsburg Empire.

Let us leave the first half of the 18th century, which, with the gold standard and the London market, had established an international financial system in a sense much more advanced than our own. For, be it remembered, within the last two years or a little more we have witnessed a depreciation of the yen against the U.S. dollar by about 70% and of the euro by about 40%, calculating in each case from the lowest point to the highest. Such rapid changes in monetary standards would have appeared quite unimaginable to any 18th century financier. One problem that he had, however, was that it took many days for him to find out what happened simultaneously in other financial markets, that it took at least five weeks to know what happened in North America, and months to know what was the case in India. In early 19th century, Nathaniel Rothschild could still make money by being informed by his own private packet boat about a day earlier than other market participants of the outcome of the battle of Waterloo.

All this was changed in the last third of the 19th century by the introduction of the international telegraph and soon after, in the 1890s, by the introduction of the telephone. From now on, news of what hap-

pened in distant financial markets spread within minutes by telephone. Financial markets all over the world were now informatively linked and the financial decision period shrank to about five minutes. From the 1890s onward financial markets became simultaneously acting markets, a great technical advance indeed.

About one hundred years later financial markets are now linked by Internet. The difference of this further technical advance relative to the telephone is that decisions have now to be taken within only half a minute and not within five minutes, and that much more people can see the same news bits simultaneously on the Internet screens. Still, I am not sure whether I should speak of two phases of technical progress, telephone, and a century later the Internet, or basically only of one. From five days to five minutes the time dimension of reliable up-to-date international information is reduced by a factor of about 1,500 to 1. From five minutes to half a minute it is further reduced by a factor of ten only. And it is not clear whether processing complex information in only half a minute is not beyond the capacity of most human brains. One gets the impression that the first panicky reaction after half a minute tends to be soon reversed. Therefore, I think that it was the telephone which more than a century ago brought the decisive technological advance and that the mass use of the Internet has to be considered as basically only a minor additional frill to the great advance brought about by the telephone. This question is, in fact, part of the ongoing debate about the extent of "newness" of the New Economy. To my mind the multitude of technical innovations just before 1900 and then again around 1950 is far more

important than the sole advance of computer and of Internet technology during the last decade of the 20th century.

4 Unity and Stability Lost

Thus, the last great innovation for international financial markets, the introduction of the telephone, took place more than a century ago. And the 20th century presents itself financially not as one of great technological progress, not even one of stagnation, but actually as one of retrogression, of unity and stability lost.

May I remind you first that – for countries not on the brink of rapid decline – the inflationary experience of the 20th century is historically unique. From about 1630 to 1750 the British price level changed hardly at all and from then on only modestly up to 1790. Then, again, from 1820 to 1913 there was no price level change, though this time with somewhat larger swings in between. Only the quarter of a century of war around 1800, first with revolutionary, then with Napoleonic France, brought inflation, but that was very modest compared to the inflation shown even by the respective victor nations in the great wars of the 20th century.

The real inflationary problem of the 20th century is the extent to which it shifted relative values of the major currencies against each other within only a few decades. This, basically, was disquietingly new.

Robert Mundell has documented the astonishing fact that the United States of America suffered the greatest inflation by far in its entire history in the 1970s: During the eleven years from 1971 to 1982 the U.S. price level rose by a full 157% while during World War I, from 1913 to 1920, it had only risen by 121%, during the Civil War it had risen by

118% between 1861 and 1864 and during the commonly so highly inflationary World War II, to be exact from 1939 to 1945, the U.S. price level had risen least of all periods, by only 108% (Mundell, 2000, p. 335). The Deutsche mark, on the other hand, during its whole history, in the fifty years from 1948 to 1998, showed the lowest rate of inflation of all world currencies with 2¾% inflation on average, being marginally lower even than the Swiss franc in the same period of time.



During the financially uneasy years of the 1970s, gold had shown an astonishing boom, rising in its dollar price from USD 35 the troy ounce in 1970 to USD 850 in early 1980, causing an average dollar price increase of 37.5% a year! Today gold, measured in U.S. dollars, is down to less than a third of the price of 1980. After 1980 the phoenix flight of gold was replaced by the phoenix flight of U.S. common stocks: The Dow Jones index of stock prices, conservatively calculated, increased from 1982 to 1999 more than fifteenfold or, in real terms, i.e. after subtracting inflation, by an average of 13.5% a year, less than gold in the 1970s, but still at a quite unsupportable rate. Even if you correct for the fact that many U.S. companies have bought back around 2% of their common stocks each year in order to fulfill stock options of their top management and if you correct for the fact that the Dow Jones weighs its composite

stocks in such a way that particularly successful stocks constantly get a higher weight and that it periodically takes out unsuccessful stocks altogether, the corrected real increase in average U.S. stock prices has to be around 9% or 10% a year. Add to that the average dividend yield and you get more than double the real return on capital, which cannot exceed 5% or at the very most 6% per annum for long, even in the U.S.A. Thus, from the 1970s onward, since the introduction of flexible exchange rates, we have been living through a period of vast financial instability, an instability which, apart from world wars, we had not witnessed since the early 18th century.

Add to that the historically unique experience that the leading financial nation of the world, the United States of America, does no longer save at all, in fact it shows a negative national saving rate, a circumstance certainly partly due to the astonishing stock market price rise which makes Americans feel much richer than they can be in the long run. This means that all U.S. real investment is at present financed by Japan and certain European nations. We are thus faced with a frighteningly unstable scenario for the long run. Since the 1980s not even inflation rates have been a reliable guide any more because inflation does no longer differ very much between the leading nations.

Since the creation of the euro we now have three great world currencies, the U.S. dollar, the euro and the yen. Their values need not be bound to any real fact whatsoever. They can represent just commonly held fantasies for the future discounted to the present. Or, as Lord Keynes so aptly wrote, they can merely be "what average opinion expects the average opinion to be"

(Keynes, 1936, p. 156). So by now, exchange rates are anchorless.

Or, if you wish to have a more precise statement, since 1973 the movement of the exchange rates of the leading industrial nations (without substantial inflation), and that includes the nations behind the U.S. dollar, the yen, and, on average, also the nations behind the euro, cannot be shown to have differed substantially from a random walk without drift. And it is an important feature of such a random walk in prices that starting from any price this price and each and any other price will again be reached with certitude, but on average one has to wait infinitely long till any given price is reached. This is an uncomfortable thought for mortal human beings who will, I confidently believe, live infinitely long, though no longer in a state where they care about prices. To put it in a nutshell: 20th century financial markets have severed their firm moorings, secured by an anchor of gold, and have substituted it with an unpredictable random walk.

5 Growth in Market Size and its Consequence

However, after the lull of the mid-20th century, an unprecedented number of boats are now birthed in the storm-threatened harbour of international financial markets. In reading the newspapers one gets the impression that the admirals of this fleet of financial investors are the great international speculators. But that is largely misleading. The owners of the numerous boats are actually the vast crowd of old age pensioners and those who invest for future old age pensions. On average we live much longer than our forebears a century ago. And, furthermore, most of us live long and then die in the same age bracket. The really great change in modern inter-

national financial markets is its domination by funds basically tuned in to the investor demand of future old age pensioners and those who have already reached that happy state.

U.S. financial investment theory counseled that in order to even out the financial risks of the late 20th century one should hold about one half of one's own investments outside the country. But then the unprecedented long-term boom during the 1980s and 1990s of the U.S. stock market came along.

Thus, exactly U.S. citizens on average did not follow the advice of international diversification; however, Japanese and also European investors did. And in Europe since July 1, 1990, everyone has been allowed to do so,

which is once again proof that, in the 20th century, the period up to 1914 and that from 1990 onward are twin eras of free financial investment. "Forget the 75 years between 1914 and 1989!" It is the size of old age pensioner investment that dominates the markets today. And with the increase in average wealth old age pensioners investing commercially have vastly increased in number. It is exactly old age pensioner sentiment which also explains why in most of the developed world we are no longer faced with substantial inflation. For inflation makes investment for retirement a nightmare.

There is, however, a downside to that great and still rapidly increasing depth of the international financial investment market dominated by old age pensioners and those planning to become so: By now, the foreign exchange market deals only to the tune of 1% with current account transactions and is employed for a

full 99% for capital transactions. If the forex market were mainly for export and import finance, for current account transactions, price swings would tend to be self-correcting. Those actual or aspiring old age pensioners, however, who dominate the capital account, show low risk aversion. They mainly invest for a return in 10 or 20 years' time or even further in the future. By then everything, the entire situation, may be quite different and will most likely be so if the exchange rate



movement basically follows a random walk. Furthermore, if they suffer a drop in value of their investment there is no way for them to get out of such a loss. And if they gain, why should they switch horses? This implies that the increase in volume of transactions in international financial markets has made the markets close to insensitive to price fluctuations, to exchange rate changes. And the fall in the average risk aversion of the dominant investors tends to make exchange rate changes all the larger. After the loss of the unique exchange rate anchor of the 18th and the 19th century the very thickness of modern international financial markets has made these markets next to insensitive to large price fluctuations. This is in stark contrast to what used to be, where a thin market showed sharp price fluctuations because it is difficult to find in them sufficient buyers when large sellers come along and vice versa. Today international finan-

cial markets, though thick markets, have become highly risky and it is dangerous to deal in them.

6 Does Financial Innovation Count?

Does financial innovation in international financial markets count for much? Actually, so far for surprisingly little. Remember, according to the Nobel laureate Robert Mundell, we should “forget the 75 years between 1914 and 1989!”, and thus forget all the mainly *short-run* innovations, effected mainly for *national* financial purposes. Not much has happened to the instruments of international finance after 1914.

One important financial innovation of the 20th century was the rise in regulatory importance of the central banks. By the 1990s, when freely moving international financial markets were once more established, the funds of the central banks had, however, become so small, relatively speaking, that they were unable to dominate these markets and even less able to dictate to them. One not very large international investor, Mr. Soros, could break the British pound sterling within hours, willingly aided, however, by the British commercial banks. After the half-hearted and not very successful attempts of the European Central Bank to shore up the euro last year we can more or less forget central bank influence, as long as international financial markets are not very uncertain as to the probable future price movement.

But there was one sign of warning of the possible dangers presented by financial innovations. That was the crisis of Long-Term Capital Management (LTCM) in September 1998 (see Edwards, 1999, pp. 189–210). First, we learned to our surprise that hedge funds, being investment funds

open only to very large investors, “as such are left mostly unregulated” (see Edwards, 1999, p. 190). Second, we found out that according to U.S. law derivative contracts, if they failed, were not subject to normal bankruptcy protection of all creditors, but that each and every counter-party could “liquidate any of the defaulting counter-parties’ assets in their control for any reason” (see Edwards, 1999, p. 201), thus possibly causing financial chaos. Third, the size of the engagement of LTCM and the low level of their security was eye-opening: With an apparently huge paid-up capital of slightly less than USD 5 billion LTCM secured more than USD 125 billion of bank credit from sixteen of the largest banks of the world. Thus, its capital was only 4% relative to its debts. With this dangerously “small” financial basis – if one can ever call USD 5 billion small – it secured contracts of more than USD 1,000 billion, or, as some say, of over USD 1,350 billion. Thus its paid-up capital was not much more than 1/2% or even only 1/3% of its contracts. Its contracts were about five or even more than six times the then annual Austrian GDP.


Does financial innovation count in international financial markets? With these huge and unguarded sums it very well might, and in a highly destabilizing way. Had there been a crash of LTCM, the long-lasting U.S. boom would most likely have ended then and there, after a normal eight-year period since 1999, while it is now in a very unusual eleventh year. It was William McDonough’s and, behind him, one of Alan Greenspan’s greatest achievements to handle that dangerous crisis so adroitly. Even so, the Japanese yen, most likely as a consequence of LTCM, appreciated within days of the crisis by altogether some

25%, and 15% within a few hours on one early October morning.

Therefore we may conclude: It is quite likely that financial innovation will count on international financial markets, though it has not really done so yet. And it is quite possible that innovation might bring added dangers.

This may seem to be a rather gloomy conclusion. But I am an optimist. In a further half century I am sure we shall be faced once more with substantial technological progress in international financial markets. Historical experience teaches us that progress comes with ups and downs.

The 20th century was more a period of retrogression than of advance for international financial

institutions, a period more of downs than ups. A single international monetary standard may be hoped for in the future. 

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A Tale of Two Financial Market Integrations —
Comments on
Erich W. Streissler,
“Financial Institutions
and Technological Progress:
An Historical Perspective”

Erich W. Streissler has succeeded in the extraordinary feat of compacting into a few pages a somehow heterodox and stimulating account of the development of international financial institutions over more than two centuries. His dim view of the 20th century — perhaps in need of some qualification — reminds us of how naïf it is to see history, even financial history, as an endless linear progress. Streissler’s paper shows that backlashes and retrogressions are always possible and that they are mostly man-made. As such, however, they can equally be avoided by

human actions. Among such actions, institution building is of paramount importance.

Rather than discussing Streissler's views on financial, institutional, and technical progress I thought I might use my space to complement his paper, in a more micro-vein, by telling two stories of technical progress, institutions, and financial market integration. Historical tales are never void of metaphorical content, and mine, particularly the second one, are no exception to the rule.



1 Early Integration of Financial Markets

Streissler has argued that financial market integration is driven by technical change, notably in the Information and Communication Technologies (ICT), and by apt institutions. Financial innovation may also play a role.

Integration is correctly measured by price convergence, rather than by large flows of financial capital. By this token, as mentioned by Streissler, financial markets were fairly well integrated as early as the mid-18th century (Neal, 1985, 1990). Integration accelerated after the end of the Napoleonic wars.

Contemporaries were fully aware that ICT was crucial to the development (and integration) of financial markets. In the 16th century, George Lloyds, the clever innkeeper, provided information to his clients; eventually publishing the *Lloyds Gazette*. Streissler quotes the

excellent communications network created by the Rothschild brothers. He stresses the role of the twin innovations of railways and telegraph immensely increasing the speed and reliability of communication and information, with enormous spillovers into the financial industry.

Institutions, on the other hand, had a mixed impact on the integration of financial markets. If eventually they evolved in a way that favored integration, in the shorter run they were sometimes cleverly used as a protective tool by those who stood to lose from closer financial market integration.

I shall use two case studies to briefly illustrate the interplay of technical and institutional change in shaping the integration of financial markets.

2 Transatlantic Financial Market Integration

As late as 1866 the fastest crossing time from New York to London was about ten days (Officer, 1996, p. 166). A great increase in the speed of ships had taken place in the previous twenty years but ten days was still quite a long time for news to travel. Fairly large differences in prices for the same securities, therefore, existed between the two largest financial markets in the world, London and New York. Then, on July 27, 1866, the transatlantic cable was opened for business. In the following three months, the mean absolute price differential of the U.S. Treasury 6% bonds in the two markets fell by 69% (Garbade and Silber, 1978, p. 827). O'Rourke and Williamson rightly observe that the impact of the cable on market integration emerged immediately and was of enormous size (O'Rourke and Williamson, 2000, p. 220).

As Streissler has pointed out, this 19th century improvement in network communication technology had possibly a larger impact on market integration than that of the more recent Net, also because, as we shall see below, communication costs fell more rapidly at that time than now.

Yet, price differentials remained. According to Garbade and Silber (1978, pp. 827–828), “a number of institutional details and quoting conventions” go a long way in explaining the lack of full convergence between the London and New York stock exchanges. By keeping the costs of cross-market transactions relatively high, institutional differences did not allow for arbitrage to fully exert its influence on prices in the two markets. Nevertheless, it seems that stockbrokers in New York and London welcomed the impact of ICT on their business. Probably, as leaders in their respective national markets, they saw in transatlantic transactions the opportunity for further increasing the volume of their business at the expense of the lesser regional stock exchanges and, therefore, of consolidating profits deriving from national leadership.

3 Italy's Financial Market Integration after 1861¹⁾

Italy was unified into a single state in March 1861. In the following year, the Piedmontese lira was made the sole legal tender for the new kingdom, thereby *legally* providing for monetary unification.

In the early 1860s, as many as 13 stock exchanges existed in the country. Any given security fetched quite different prices in the individual

regional bourses, indicating financial market fragmentation. As we shall see, neither political nor *legal* monetary unification brought about swift financial market unification, in spite of the tremendous improvements in ICT.

The new state in fact invested heavily in communication technology. In 1861, only 12,000 kilometres of telegraph lines and 246 telegraph offices existed in the territory of the Kingdom of Italy. Five years later, these two figures had roughly trebled and in 1870 Italy possessed 50,000 kilometres of lines and as many as 1,237 offices. More important, the prices of communication services fell dramatically. Sending a 15-word cable across the country (to a distance of 1,000 kilometres) cost 20 lira in 1860, five years later the price of the same cable was down to 2.4 lira. Prices continued to fall afterwards, if at reduced speed.

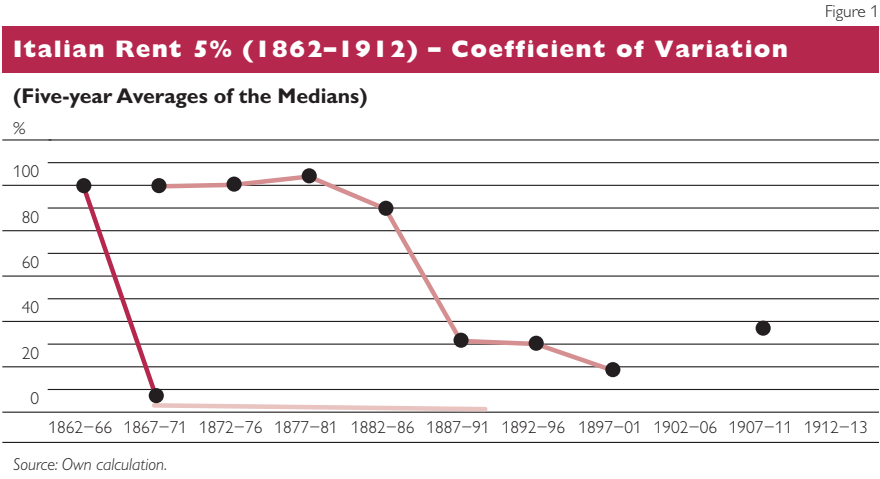
Communication technology, therefore, made colossal progress in a very short period of time even in relatively backward Italy. One would thus expect rapid convergence in the prices of the securities listed on the various stock exchanges of the peninsula. This was, however, not the case.

The graph shows the five year averages for the coefficient of variation of the price of the Italian 5% consols (*Rendita Italiana*), by far the most liquid and widely traded financial asset, across the five most important Italian stock exchanges.²⁾



1 I am grateful to Leandro Conte and Giovanni Vecchi for permission to offer here a brief preview of some of the results of our joint ongoing research into factor market unification after Italy's monetary unification. See also: Conte, Toniolo, Vecchi (2000).

2 Rome, Florence, Turin, Milan, and Genoa.



Quite surprisingly, in spite of the enormous spread of the communication network and of the tremendous fall in the price of telegrams, no progress in financial market integration appears to have been made until the 1880s.

The reasons for this unexpected outcome are entirely institutional. They can be summarized under three headings: (i) the slow pace of the monetary unification progress, (ii) the resistance to change by powerful vested interests, (iii) the inadequate understanding of the way financial markets operate by the judiciary powers.

Slow Monetary Unification

In 1862, the Piedmontese lira was made the sole legal tender, thereby *legally* providing for the monetary unification of the country. However, it took a long time about 15 to 20 years for *actual* monetary unification to be achieved. Silver coins of the various pre-unification states continued to be used alongside the Italian lira and were often preferred to it. Resistance to the introduction of the new currency was particularly stubborn in the South.

Confusion about exchange rates (roughly 240 different types of monies circulated in Italy at the time

of political unification) and conversion costs blurred the meaning of prices and increased transaction costs making arbitrage among the different stock exchanges unattractive to the small and medium-sized investor.

Vested Interests and Institutional Change

While the integration of financial markets promised better deals to individual investors (consumers) and a more efficient allocation of financial resources for society as a whole, it also threatened the oligopoly of stockbrokers and stock exchange employees in the local bourses.

Quite understandably, those endangered by the new technology devised ways to protect themselves. These took various forms:

(i) For a number of years, the local Chambers of Commerce, which at the time ran the stock exchanges, did not allow telegraph offices to be opened within stock exchange premises.

(ii) Changes in traditional rules and procedures (including those for stock listing and pricing), specific to individual local markets, were resisted, thereby increasing information costs in arbitraging from one stock exchange to the other.

(iii) Stockbrokers resisted government regulation of the profession. The 1865 Code of Commerce deregulated the stockbroker profession: unlicensed stockbrokers were allowed to trade. In 1868/69, professional stockbrokers opened a dispute with the government which lasted many years. Several of them refused to carry out operations from the parterre. Trade outside the official stock exchanges blurred prices: At times even the fixing of the official closing price proved impossible. In 1874, an Act of Parliament increased taxes on financial transactions. The stockbrokers' protests deepened, a large number of them did not renew their licenses. The number of off-market transactions increased.

Inadequate Economic Culture of the Judges

Many members of the judiciary did not recognize futures contracts, one of the main financial innovations as far as Italy was concerned, as legally binding. This meant that transactions of this kind could only be performed on the basis of personal trust. And the latter mostly develops at the local level, through repeated interaction. The judges' lack of economic culture, therefore, provided a "natural" protection to local interests.

The Achievement of Financial Market Integration

Financial market integration was accomplished only in the 1880s, as institutional obstacles were removed.

Actual, as opposed to legal, monetary unification was eventually accomplished. According to Mint records, the conversion of old coins into Italian lira was completed only around 1874. In the same year, a Bank Act concerning the banks of issue gave one of them a decidedly national, as opposed to local, role

providing for the birth of an embryonic central bank. The resumption of full convertibility (1883) made the lira universally preferred as *the* means of payment.

In 1882, a revision of the Commercial Code finally made rent-seeking by local stockbrokers almost impossible to achieve (Baia Curioni, 1995, p. 125): The stockbroker profession was opened to competition, as entry requirements became easier and cheaper. At the same time, from the late 1870s onward, banks acquired an increasingly larger share of the stockbrokers' business. Their national branch network allowed them to be actively involved in price arbitrage both on their own account and on that of their clients.

Finally, futures contracts were explicitly recognized by the law, ending judges' discretion on whether or not they should be made legally binding.

4 De Te Fabula Narratur?

What is the metaphor of these two tales? They may, it seems to me, illuminate one of Europe's paradoxes: of the achievement of monetary unification without financial market unification. Two years into EMU, European financial markets do not appear to be fully integrated, in spite of the enormous potential for complete integration offered by the progress in ICT.


As in the case of 19th century Italy, the present failure seems to be mostly institutional.

European financial markets remain segmented into national markets to an undesirable degree due to: a) institutional obstacles (such as differences in legal systems, including tax legislation, and cultural gaps); b) obstacles created by the financial industry itself, often for protectionist reasons (e.g. fragmentation of clearing and settlement rules); c) a situation which Spaventa recently

defined as one of “regulatory balkanization”.

In this respect, there seem to be three lessons that can be drawn from the tale about 19th century Italy. They can be briefly stated as follows.

- a) The Italian case shows that de facto monetary unification may be much slower than its legal counterpart. While Europe’s monetary unification will not take as long as Italy’s, it is possible that the old currencies will not dissolve into the euro as speedily as is desirable. Some, if minor, transaction costs (presumably mostly psychological in nature) may indeed be slow to disappear.
- b) Financial market integration does not benefit everybody to the same extent. Consumers and savers stand to gain, some professionals in the field may lose lucrative rent positions. As in Italy almost a century and a half ago, in today’s Europe financial market integration is subtly resisted by segments of the financial intermediation industry.
- c) Another lesson from the Italian case is that, at least in those circumstances, only well-designed and firmly implemented actions by the legislative and administrative central authorities could break vested interests and regulate legitimate ones so as to bring about market integration. Present-day Europe may not be much different. National governments do not always turn a deaf ear to the vested interests

demanding a slower pace of unification on the basis of the notion that “national champions” should be given enough time to adjust and, in any case, that market liberalization requires full reciprocity. If this is the case, only energetic action from supranational authorities may result in the creation, before we are all dead, of a single European financial market alongside the single currency. 

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GERTRUDE TUMPEL-GUGERELL, MODERATION
GRAHAM BISHOP
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The Banking Industry and Financial Services

Podiumsdiskussion

GERTRUDE TUMPEL-GUGERELL

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Widespread deregulation and liberalization, accompanied by technological developments, have fundamentally changed the environment in which banks operate. In the euro area, the impact of these developments has been amplified further by the introduction of a common currency and the single monetary policy framework.

Today, EMU provides banks with a home market large enough to effectively support their efforts in becoming global players. It is, incidentally,



often argued that smaller countries benefit most from integrated financial markets as their national currency markets tended to be small and segmented, with low liquidity, few actors, and a limited range of

financial instruments.

The euro's catalyzing abilities have been particularly important for the banking sector. The launch of the single currency reinforced trends already prevailing in the EU banking systems, such as the drive to shed excess capacity, to venture into global markets, and to step up mergers and acquisitions.

I would like to point out the rapid integration of the national money markets into a single euro area money market. As a result, certain market segments, like the unsecured deposit market and the derivatives markets, have already become fully integrated. TARGET, the leading settlement system for payments in euro, has played a key role in facilitating the redistribution of liquidity across the euro area.

Similarly, the trend toward the integration of the government bond markets and the rapid growth of the euro-denominated private bond market come to mind. The euro

bond market has quickly evolved into a major competitor for the respective dollar-denominated market, and the corporate bond market is growing at an even faster pace.

So, where do we stand at the present juncture, and where shall we go?

In spite of the achievements to date, we should keep in mind that the integration of the euro area's financial markets is an evolutionary process. In fact, significant barriers have yet to be overcome, for instance, in the capital market, where national laws, market practices and traditions still differ considerably across the euro area. Another example is the repo market, which is still far from being integrated.

Measures to promote the integration of the European financial markets are high on the agenda. In particular, I would like to highlight the importance of the Financial Services Action Plan drawn up by the EU, which aims at abolishing legal and structural obstacles to fully integrated financial markets by the year 2005. In its recent meeting in Stockholm, the European Council again stressed the importance of integrated financial markets. To this end, common standards for financial regulation must be introduced to European financial markets, a key demand also pointed out in the Lamfalussy Report.

What do these developments imply for the banking industry?

Not only has more competition resulted in narrower bank margins, but it also offers substantial advantages: Transaction volumes are on the increase, and it is becoming much easier for euro area banks to raise funds in a larger and more liquid bond market at reduced issuance costs.

To ensure a smooth changeover to the single currency, banks in par-

particular faced heavy investments in the run-up to the introduction of the euro in 1999. Besides, major and rapid changes in their economic environment induced them to undertake restructuring and consolidation measures. Further challenges are on the horizon, not least the rollout of euro banknotes and coins at the beginning of 2002, which presents banks with a logistical litmus test. On the banking supervisory front – suffice it to drop the catchphrase “Basle II” at this point – banks will have to take action as well. In other words, banks are faced with permanent change, which offers both risks and opportunities.

The use of new information technologies – especially the Internet – offers tremendous opportunity. Technological innovations have revolutionized or are about to redefine virtually all of banks’ business areas. Banks have been investing heavily in enlarging and improving their infrastructures. The introduction of new products and services is often based on modern information technologies. Multi-channel banking, which refers to the combination of various distribution channels, such as sales representatives, direct sales, and the brick-and-mortar branch system, is gaining in importance. The impact increasing e-business solutions will have on banks, especially in countries with dense branch networks, such as Austria, is a hot topic.

Consolidation has been reshaping the European banking industry. Over the past decade, the number of credit institutions based in the euro area has dropped considerably: from more than 11,000 credit institutions registered in the mid-1980s to around 7,500 today. In Austria, by the way, there are currently 923 banks.

The intensified consolidation drive in the euro area’s banking sec-

tor is traceable mainly to mergers among savings and cooperative banks, often referred to as “defensive” mergers, which are aimed at cutting costs and possibly also at diversifying risks. Yet a number of bank mergers has taken place between relatively large institutions, mainly within national boundaries.

The predominance of domestic mergers may be explained by the fact that the relevant market for retail services is still national rather than pan-European. In addition, cultural factors influencing corporate governance and management may come into play, again tipping the scale toward domestic mergers. Perhaps we can gain some insights from the experiences of Bank Austria, which was involved in one of the few larger cross-border mergers that took place just a few months ago.

Are financial systems in the euro area departing from a bank-dominated structure and are they becoming more market-oriented or even securitized? Institutional investors are playing an increasingly important role in allocating savings from the household sector to the corporate sector. Asset-side disintermediation is under way in a number of European countries. In Austria, this process has had limited implications only, with banks still in a dominant position, as institutional investors, like investment funds, often are part of banking groups.


The question arises: Are universal banks suited to cope with the current transformation process?

Universal banks that have established themselves as successful players on international markets are flexible in adapting to local needs. Today there are both highly international-



ized markets for certain products and markets that still have a strong domestic focus. Retail activities, like lending and deposit taking, are still confined very much to national territories.

Nevertheless, internationalization is making progress. Cross-border transactions between financial intermediaries are bound to open up new and attractive markets and

allow for better risk diversification. Austria's major banks have, for instance, been very active in the Central and Eastern European countries, establishing business contacts, opening local subsidiaries, and acquiring local banks. This also illustrates the trend of closer cooperation and increasing integration in the banking industry. 

Comments for the Panel Discussion on the Banking Industry and Financial Services

These initial remarks are designed to put the development of the banking sector into the perspective of the wider securities market. A key issue for the future is the extent to which the securities markets take over the role of providing credit to the high quality sector of the economy. In practice, this would represent a disintermediation of the banking sector and would have profound consequences for it because the principal residual role would be that of making lower-quality/smaller-size loans that may therefore be more risky.

Introduction

Established demographic trends are leading inexorably to a build-up of financial assets to fund retirement. These savings may be in the second pillar in a formal pension fund or they could be in the more informal third pillar – held either directly by individuals or via financial institutions. However, the impact of the infrastructure revolution may well cause these savings to flow through different intermediation routes.

The surge in financial assets for retirement is going to coincide with the time – just ahead now – when the financial services industry is digesting the full implications of the completion of the single market in money in Europe – not only the euro but also financial services regulation. That alone is a revolutionary combination but there is another element – the technological revolution – that

promises (some may say threatens) to change the mechanics of delivering financial services. This infrastructure revolution may enable the gusher of pension fund money to flow through some rather unexpected conduits.

Whether analysing Defined Benefit (DB) schemes or Defined Contribution (DC), cost savings will be high on the agenda in the years ahead. To illustrate the significance of this trend: In the UK, “stakeholder pension schemes” are about to be introduced. The Government has specified a maximum annual cost of 1% of the premiums – to the horror of an industry accustomed to nearer 2% annually. If that 1% saving compounds at the investment return for 20 years or more, then the impact on the citizen’s retirement income is extremely significant – perhaps obviating any need for extra payments from the state.

Inflation is now dead – so in future we must look at investment returns, which may still be quite good in real terms. But in nominal terms, they could be much more modest than we have been used to over the last decade or so. So that 1% cost saving may seem much more material in future.

The central question for the banking industry is: Could the gusher of pension



¹ Graham Bishop is a consultant on European Financial Affairs and is also a consultant to Schroder Salomon Smith Barney but his views do not necessarily represent those of Schroder Salomon Smith Barney, or any of its affiliates.

money flow into the bond markets, instead of bank deposits? If the answer is “yes”, then the banks may find themselves disintermediated by their best customers – starting with governments, moving on to high-grade corporations and then into the core of the commercial sector – Single-A/Triple-B-rated companies. Securitisation techniques may also enhance the opportunity for many other types of borrowers to access the capital markets directly.

The remainder of these remarks will be designed to answer two questions:

1. *Is there any evidence of this happening already?*
2. *Are there any developments under way that might encourage this process?*

I What has the euro bond market achieved so far?

Some salient points:

- After two years of the euro bond markets, their scale is established beyond doubt – the euro government ‘bond’ market is 40% larger than the US Treasury market and many individual issues are larger than the US competitors.
- Issuance of “all” euro bonds via underwriters exceeded that of competing “international” dollar issues in both 1999 and 2000, though the total size of the “investible” dollar bond market is still much larger than that in euro.
- International dollar bond issuance rose 27% in 2000, but just failed to close the gap with the issuance of “all” euro bonds, which declined by 8%.

But the first quarter of this year saw dramatic events:

- Equities crashed, but euro bonds provided a solid bulwark. The value of euro area equities available to investors shrank 14% in the quarter (by more than EUR

300 billion), to EUR 2,700 billion. However, the overall value of euro bonds is about EUR 7,300 billion, so the 2% total return offset half that loss. Even so, the net wealth destruction amounted to 2.7% of GDP.

- So the bond issuing boom was dramatic: volume up 71%, to a new record – 15% above the pent-up demand levels in the first quarter of the euro’s life – and was 17% above “international dollar” issuance. Some of the issuance was one-off, as the telecom companies struggled to fund their UMTS licence bids, but there was some evidence that the demonstrated capacity to finance very large issues encouraged other borrowers to do the same.
- At current yield spreads, investors’ willingness to take risk was clear – Single-A issues were one-third of issuance and the high-yield market reopened explosively. Corporate bond volume more than doubled in the quarter – partly due to that one-off supply from telecom companies. However, the most striking demonstration of the euro markets maturity came in the corporate sector. *For the first time, private corporations and utilities raised more funds in euro than in “international” dollars – another milestone in the rising significance of the euro as a reserve currency.*
- Trading liquidity has become a prime motive for investors. The number of bond issues is declining somewhat, but the average size has shot up. Astonishingly, “over EUR 1 billion” bonds raised nearly half the value in the first quarter. Yet, 40% of the issues were under EUR 100 million each – raising only 5% of the value – a new low. The

Table 1

Issuance of “all” euro- and dollar-denominated bonds								
1999 to 1 st quarter 2001								
	1 st quarter 2001		4 th quarter 2000		2000		1999	
	All euro-denominated	Int. dollar-denominated	All euro-denominated	Int. dollar-denominated	All euro-denominated	Int. dollar-denominated	All euro-denominated	Int. dollar-denominated
	EUR billion							
Sovereign/								
government/authority	30	15	9	1	66	34	58	33
Supranational	4	13	4	2	8	22	15	23
Private corporates/								
utilities	49	47	18	34	104	157	110	129
Public corporates/								
utilities	13	12	6	2	29	18	24	11
Private finance	116	70	88	46	401	229	416	185
Public finance	76	90	43	67	162	267	213	192
Total	288	247	168	152	770	727	836	573
Memo: EU-12 central								
government issuance	148		90		436		437	

Sources: Capital DATA Bondware, Salomon Smith Barney, April 2001.

liquidity premium attached to government/agency bonds that are big enough to trade on EuroMTS is becoming an ever-stronger magnet. Moreover, this premium is also becoming apparent in the corporate bond market.

Euro issuance comfortably exceeded that in the international dollar markets again – by 17%. Even if the EUR 19 billion of “domestic private placements” were excluded,

euro issuance remains ahead. Many Pfandbriefe are formally described as “domestic” issues, even when they exceed EUR 1 billion in size and have substantial international placement, so a correction for that element would give a similar issuance to that in US dollars, even on a strict comparability test, for the first time.

Several European sovereign issuers launched new fungible lines with underwritten issues last quar-

Table 2

Government debt ¹⁾					
	Bonds ²⁾ as % of “Maastricht debt” end-2000	Average maturity years	Market value EUR billion, December 2000	Average size over 7-year life EUR billion, March 2001	10-year benchmark
	%	years	EUR billion, December 2000	EUR billion, March 2001	
Germany	45	7.62	572	14	23
Italy	44	7.84	564	17	21
France	64	7.21	535	15	18
Spain	62	7.29	228	8	11
Belgium	65	7.49	183	10	5
Netherlands	71	7.38	148	8	2
Memo:					
EU-12	42	7.48	2,472	11	
US	28 ³⁾	9.29	1,827	14	12
Japan	31 ³⁾	5.99	1,792	14	15
UK	60	11.15	362	13	8

Sources: European Commission, OECD and Schroder Salomon Smith Barney.

¹⁾ The ratio of central government fixed-rate bonds to the general government sector's debt (as defined for the Maastricht Treaty) is designed to indicate the degree of securitisation of public debt.

²⁾ Bonds as defined in SSMB World Govt. Bond Index; fixed rate, over one-year remaining life.

³⁾ US/ Japan debt is OECD “financial liabilities” definition.

ter, thus boosting that sector. However, the most striking demonstration of the euro markets maturity came in the corporate sector. *For the first time, private corporations and utilities raised more funds in euro than in “international” dollars – another milestone in the rising significance of the euro as a reserve currency.*

Apart from issuance, the most important current factor in government bond markets is the rising influence of electronic trading platforms. For the smaller EU Member States, the rise of the Reference Note programmes from the “surrogates”, such as EIB, Freddie Mac and now KfW, is an important competitive influence as they are able to launch issues that can benefit from the liquidity premium from cash trading on EuroMTS. This system now covers ten of the euro area states, as three Greek government bonds were listed from the end of January. Away from the cash market, Brokertec is making its presence felt in basis trading.

The Dutch Government pioneered the launch of its new ten-year issue by dealing entirely with its dealer community via EuroMTS. Other debt managers use electronic messaging systems rather than actually dealing online. Yet, the trend towards technological sophisti-

cation is clear, imposing a significant cost burden on the dealer community to keep up. Presently, these systems are interdealer, but the next step is already developing – links from the dealers to their own customer base. The final step – commingled prices from the dealer community to multi-client – is already happening, but on a limited scale for the moment.

European debt managers are continuing the steady progress towards larger issues, and 2000 witnessed a remarkable debate on how clearing and settlement should be developed as this is now seen as a critical barrier to cross-border trading.

Size of euro bonds versus euro bank deposits and US dollar bonds

The ECB provides data on the bonds outstanding that are reported to it as eligible for collateral purposes, and the bonds that would be attractive to mobile international investors make up about half that total. Surprisingly, total bonds are already a third larger than bank deposits. Interestingly, the smaller bond issues are equivalent to nearly 70% of bank deposits of euro area residents (excluding interbank deposits).

In international comparisons, the total size of bond markets still heavily

Table 3

Comparison of “investible” bonds – EU versus USA			
(Minimum issue size EUR 500 million)			
	EuroBIG		US BIG
	EUR billion		
Number of issues	1,103		1,447
Market capitalisation (EUR billion)	3,453		5,761
	%		
Memorandum Items:			
Investible bonds as % of GDP (2000E)	40		55
	number		
Total bonds (issued by euro area + foreign: ECB “eligible”; December 2000)	7,260		
Total bank deposits of euro area residents (ex MFIs; January 2001)	5,454		

Sources: ECB, Salomon Smith Barney Fixed Income Indices, April 2001.

favours the US dollar segment. The exceptional performance of the US dollar bond markets in the first quarter, combined with renewed weakness in the euro against the US dollar, means that the US dollar index is now 67% larger than the euro index, up from 56% at year-end. However, the euro market is still 88% larger than the number-three market – Japan – and is seven times the size of the fourth-ranking market – the UK. But a comparison of the US dollar and euro markets shows some clear structural differences.

- *The yield on all US dollar bonds is about 120 basis points higher than on the euro equivalent, rather than the, say, 30 basis points ten-year government bond spread that is normally quoted.*
- The US dollar market has a more linear maturity structure.
- The rating distribution is very different – largely due to the very large mortgage sector in the US. However, the significant surge in Single-A-rated issues in the last quarter has increased that segment by 80% in the EuroBIG, bringing it close to the US dollar level. However, the absolute size of that US dollar sector is still twice the euro equivalent.
- European government bonds account for a much larger proportion of the index than in the US.
- Looking at finance for the industrial economy, that sector represents 7.4% of the US index – 61% more than the European ratio. However, that is down from 75% at year-end – another reflection of the surge in corporate bond issuance in the euro area in early 2001.

From this evidence, it appears that the euro bond market already constitutes a major rival to the banks in providing credit to many sectors of the euro area

economy. The rapid growth of the corporate bond market is perhaps the most significant. The more the euro bond market is seen as an “eligible asset class” by international investors, the more competitive the financing terms for European industry – and the greater the competition for the banks.

2 Will current developments encourage the growth of securities markets?

Legal reform via the Financial Services Action Plan (FSAP)

The intention is a clear and unequivocal “yes” – but the question in the minds of many market participants is whether it will actually get done. The Heads of Government have now formally committed to creating the framework for a genuinely single “capital market” by 1 January 2003, even earlier than the rest of financial services.

The March Stockholm Summit of EU leaders may have been a turning point for reform. EU leaders succeeded in offering the European Parliament a compromise that *should* be acceptable, clearing the way for rapid action on the Lamfalussy Report on securities markets regulation.

This decision underlined the continuing commitment of EU leaders to implement the reforms necessary to create a single capital market within the EU that is globally competitive. Providing the heads of government can get their negotiators to follow through this process, the euro-denominated financial services industry can look forward to significant legislation in the remainder of this year, which would be an encouraging backdrop for financial markets during the changeover to notes and coins on 1 January 2002.

For once, the EU’s penchant for compromise seems to have achieved

all that is necessary to install the system for the rapid updating of securities market legislation. For market participants, perhaps the most encouraging sign was the commitment to give reasons for any proposed regulatory action. This also meets the objection that the Council could use its strengthened power to go back to the old ways of protectionist measures. The prime safeguard is the commitment in the European Council's Resolution: "This process should take full



account of the conceptual framework of overarching principles set out in the report", as the Lamfalussy Report includes the principle of fostering innovation. Thus, the scene should now be set for a progressive reform that removes the remaining obstacles to a genuine pan-EU capital market.

Along the way, many intensely technical details must be resolved and perhaps the largest remaining infrastructure problem is the nature of the clearing and settlement arrangements across Europe. The Lamfalussy Report carefully avoided giving an opinion on whether the public authorities should become involved in the debate. Instead, the report noted that another group was examining the issue. The European Commission's "Giovannini Committee"¹) has been asked to report back by July on the subject and its mandate is:

1. To analyse the current situation (including institutional set-up) for cross-border clearing and settlement.

2. To consider the requirements against which the efficiency of possible alternative arrangements for clearing, settlement and depository services can be assessed.
3. To identify some possible alternative arrangements for clearing, settlement and depository functionalities.

Lamfalussy/Wise Men's Report: What is the real significance?

We should all welcome the Wise Men's Final Report. It is a thorough and comprehensive analysis and shows all the hallmarks of listening carefully to the points that have been made in the 41 responses. *Nonetheless, the Working Group²) for which I am Rapporteur believes that the proposal could still be improved through a greater willingness by the Council to share power in an open, reasoned manner. This was a central plank of our initial reaction and it remains a fundamental source of concern.*

The priority now is to deliver these changes – with good quality legislation that is speedily enacted and implemented. *But the debate has now moved to the end game – do the Member States really want to have an efficient capital market? The way they share power with the Parliament will be a litmus test of their will. Powerful implications flow if it becomes apparent that the Member States do not want to achieve a good result.*

If the Council will not do this – and we recognize the precedent value that might be created in other areas – then the question will eventually be put "Do the Member States really want to adapt to the existence of global financial markets?"

¹ The author of the present paper is a member of that committee.

² Working Party of the Federal Trust on the Wise Men's Report. The text is available on www.grahambishop.com/fedtrust.

It is worth pursuing the logic of this scenario. If they do not want such capital markets, then what are the practical alternatives? One is to go backwards and retreat to individual national financial systems – but is that consistent with a single currency and even a “single market”. In other words, the logic implies a profound backsliding in Europe that would probably precipitate a run out of European capital markets while the opportunity still existed.

That seems a dramatic scenario. Is there a halfway house? Yes – continue with a muddling through but that inevitably means giving up real economic benefits – as carefully laid out by the Wise Men. It also means that the power of the US dollar would remain unchallenged so that the monetary operations of the United States – to meet its own domestic economic needs – would still have a disproportionate influence on Europe.

Unless a third plausible scenario is forthcoming, then a decision to maintain the old proven-to-fail decision-making system may only serve to show – even more transparently – that it is failing again. The stakes are high – precisely the reason why the Wise Men’s Report has turned out to have only minor comments on the measures to be taken – because the measures have been broadly agreed for years. *Instead, the debate has moved to the end game – do the Member States really want to have an efficient capital market? The way they share power with the Parliament will be a litmus test of their will.*

So we must brace for a fierce constitutional argument that the media will fail to report sensibly. But we must focus on the real issue: Do the Governments really want a genuinely single capital market? If the answer is “no”, then much of the progress that I outlined in my

opening comments will be put at risk in the next few years.

However, there are grounds for optimism that a satisfactory – if inelegant – solution is possible, based on the Stockholm Communiqué.

1. If the Parliament resolves that the secondary legislation goes beyond the implementing powers in the primary legislation then “the Commission commits itself to expeditiously re-examine those draft measures, taking the utmost account of the Parliament’s position and stating its reasons for the action it intends to take.”
2. The commitment to give reasons for the proposed action also meets the objection that the Council could use its strengthened power to go back to the old ways of protectionist measures. The first safeguard is the commitment in paragraph 1 of the European Council’s Resolution: “This process should take full account of the conceptual framework of overarching principles set out in the report.”

The formal obligation on the Commission is to give reasons only when the Parliament votes that the secondary legislation goes beyond the implementing powers granted by it in the Level 1 legislation. However, it seems reasonable to expect a Commission analysis to show that its proposal is within the overarching principle. As a matter of practice, that may well amount to a reasoned opinion that the proposal accords with the results of the consultations with market practitioners. If the proposal is not demonstrably within the overarching principles, then by definition it will be outside the scope of mere implementing legislation. So the Parliament will have an obligation to express that opinion –

thereby triggering the response that the Commission has now agreed to give.

From the Parliament's perspective, the mechanics of negotiating this compromise was surprising: Council and Commission thrashed out their own compromise and then unilaterally offered a solution to Parliament's objections. This solution falls short of the formal symmetry that might be expected in the "co-decision" system. Yet, it probably achieves the desired result – in

the surprising weakness of the euro. Maybe the market – in its inchoate way – has grasped that the crunch still lies ahead and that EMU could still explode again. Small probability – but definitely non-zero!

Impact of technology

I suspect the Internet is an ideal mechanism for the relatively wealthy about-to-become-retiree, or actual retiree. (We heard about the proportion of people who are retiring in their fifties and early sixties – well before the normal age). They are the people who are the customers of these financial institutions. They have the time and the reason they have built up such a large pool of assets is because they have the ability to create them. Perhaps they are looking for some new interest in life. Will they have a computer at home? Will they have Internet access? Of course they will.

They have a powerful incentive to do something themselves which directly increases their retirement income. Currently, they have gone down the equity investment route. However, equity dealing online has gone down very sharply for "technical reasons" following the index decline! The surprise is that bond dealing-online has not gone very far yet. I suspect this is going to be one of the most interesting areas.

In a low inflation world retired citizens – or the just about to be retired (there is that swing in attitudes approaching retirement) – become much less interested in taking risks to build up their pool of assets – their wealth – and much more in retaining it. They want to make it certain and maximise the



a circuitous, but practical way. If it turns out not to do so, then the Parliament has a key negotiating advantage in the future – it simply requires the Level 1 legislation to be fully detailed. At this stage it would be regrettable if the need for such behaviour arose as *the opportunity now seems to exist to process the necessary legislation rapidly, transparently and in a democratic manner.*

But there is more downside than that: If it becomes clear that the EU Member States are not really determined to have a single capital market, then there will be continuous bitching and rising discord in the years to come. But in not very many years comes the 2004 Inter Governmental Conference (IGC) on the serious constitutional reform that is necessary for enlargement. It could become clear that the high water mark of European integration has passed.

Will this have an impact on the euro? YES – and that is a possible reason for

income from it. Instead of having maybe a 1% or 2% income from equity, they might like to have something much higher. That set of preferences has described, exactly, a bond portfolio. And that is why, quite naturally, around the moment of retirement, individuals (or their intermediary institution) move towards bond portfolios.

The dynamics are interesting. Presuming the citizens have the choice of investing their money in a bank deposit. As we are talking about euro here, the yield could be 4% or a little less. But they could do something more adventurous: They could buy – (eventually that could be done very simply and cheaply, online) – a bond from their local Government and, if they had access to the depository, that could also be done online. That does not seem a very risky thing to do. Simply by going from a bank deposit to a ten-year Government bond, our pensioners could increase their yield from 4% to about 5%.

If they felt really adventurous and well-informed, they could choose to take a bit more maturity risk, they can go out to thirty years and then they can have a 5.75% yield. If they wanted to take credit risk, there is a South African Government bond just issued in euro yielding 7%. Increasing the yield from 4% to 7% translates into quite a large increase in retirement income!

Put yourself in the shoes of that retiree: You are sitting at home with that pool of assets and plenty of information. You know that

- you can do this transaction very easily
- for next to nothing
- online
- simply
- in real-time.
- So the risk of exposure to these various intermediaries during the transaction is quite low,
- and you can raise your income by 50% (or 70% if you want to go that far).

Is that something you would be interested in doing?

I suspect that over the next few years a very attractive opportunity will present itself. With the emergence of the Prospectus Directive, an individual citizen will be able to decide to buy, online, a credit bond – not just their Government bond – and get it paid for and delivered to their custodian in a flash, and for next to nothing.

The result is that the infrastructure revolution will drive a financial services revolution because the rising tide of pension money is looking for the highest net return.

I suspect we shall see some very interesting developments in the next few years as the bond markets mature in this high-technology world. They may offer stiff competition to the banking sector. 🐼

The Banking Industry and Financial Services

I will go very rapidly through my presentation, which focuses largely on the banking industry and financial services, then I will spend a few words on our strategy in Central Europe.

The single currency has been one of the major factors for change in the Euro-

We have to change our activity. Monetary policy is favoring the creation of an integrated capital market. There is a larger offer of bonds and an increased demand for bank intermediation services. The structure of banks must change, reducing their overcapacity in traditional services (above all in terms of number, of branches and staff) but increasing their ability to deliver new products and services.

The pressure on the banking sector in Europe has made it converge toward higher levels of

efficiency and profitability. There are fewer disparities than before between the different players within the European market.

pean banking industry, but it is not the only one. We always have to consider that there are many different forces at work: privatization, technological change, shareholder pressure (which is increasing in all European banks) and deregulation, just to name some of them. So, to stay ahead of the pack, we have to focus not only on the single currency but on the many different forces that are reshaping the financial and banking industry.

The main trends that are putting all the European financial players under pressure are:

- the concentration process and the subsequent reduction in the number of banking players;
- the incumbents' aggression in the "core" market;
- the development of new financial instruments within the euro-denominated capital markets;
- the strong integration, standardization and growth in the derivatives market (swaps, futures etc.).

In the past two years, the average ROE (return on equity) improved and the dispersion rate among the euro countries decreased. At the same time, the cost/income ratio and its dispersion rate fell. This means that the European market is gradually becoming a single market in terms of efficiency and profitability. I think that it is very important to take additional steps toward the creation of an integrated area so as to be able to play a major role among the world financial markets.

There are still several obstacles to overcome in order to create a single market. Among them are:

- taxation;
- culture and language (the main obstacles to cross-border concentration);
- legislation;



- supervision – the powers, competences and duties of supervisory bodies differ (40 different regulatory authorities are currently operating in the EU);
- protectionism – for instance, imposition of host country rules to protect the national industry;
- clearing and settlement – there are still more than 40 different clearing and settlement structures within Europe, which is a big problem for the creation of a single market, e.g. in terms of trading. The costs that we have for trading activities are far higher than the costs per transaction in the United States.

The process of creating an integrated EU banking and financial market will be the necessary step for the *affirmation of a system comparable with other big world banking and financial systems*. If we compare the first banking systems in the world in terms of cost/income and return on assets, we can see that despite the improvement I have mentioned European banks have further room to improve their positioning.

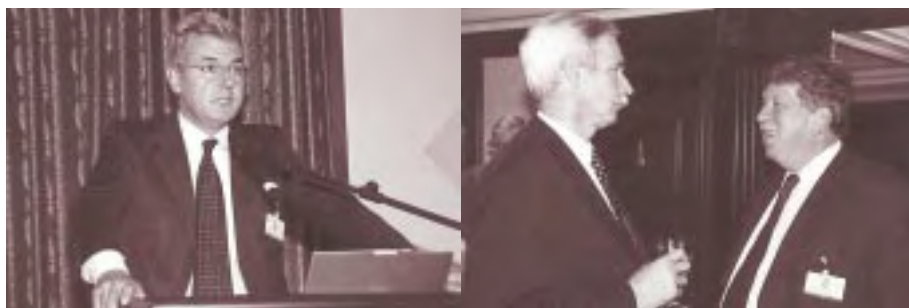
I'd like to spend a few words on how we are dealing with this new environment at UniCredito Italiano.

First of all, UniCredito is coming out of a privatization process. Credito Italiano was privatized in 1993. In 1994 the return on equity of Credito Italiano was 1.4% and the total value of Credito Italiano was, more or less, EUR 2 billion. Today, after taxes, the ROE is 21% and the market capitalization is EUR 26 billion to EUR 27 billion. So in six years we have changed a lot.

Now we have a big problem. The financial market is asking us: "You

are so efficient. How will you increase the values for your shareholders?" The market poses this question because at tax rates of 43%, such as those we have in Italy, it is impossible for a company to sharply improve their ROE or efficiency.

The cost/income ratio is around 51%. So, we have to identify other options, as the value of our shares is linked to ROE and to the cost of capital. If the cost of capital is even, we have to work on the activities.



How are we identifying other important opportunities to increase shareholders' value?

One is in the distribution area in Central Europe; another is in the production area with, for instance, Pioneer, our investment management company.

In our opinion, Central Europe is a great opportunity for distribution, as in that area we want to be a classical commercial bank, structured by customer segments, and so on. But we are not producing because the factories, for instance, of asset management or financial products are in Boston (with Pioneer) or in Italy (with the trading bank).

In terms of distribution, why did we choose Central Europe? First of all, because these countries are entering the European Union; the economic and financial policy that they have to follow is very clear and the Eastern countries are ready.

Second, they are very close to Italy in terms of foreign trade; we

are always one of the first three partners in commercial trade with these countries.

The privatization process is now finishing; so the opportunity is to buy a good portion of the market at a reasonable price and we always compare in terms of how many U.S. dollars we have to pay for USD 1,000 of intermediate that we are buying per country.

Finally, the people of the area are always very well trained. We have found exceptional people from the technical point of view. So today we are one of the three big players in the area along with the Hypo-Ver-einsbank/Bank Austria, which is very big in the area, and KBC, a Belgian bank. It is interesting to see that

the three major players are not from major countries: Bank Austria was the first bank in its country, the second bank is from Belgium, and we are from Italy. I think this development is due to the fact that, since we no longer have merger opportunities in our own countries, we have to go abroad to become bigger and to be able to create value for the shareholders.

The results that can be achieved are really good. For instance, with the bank that we bought some two years ago, we have been able to increase the ROE from 10% to 20% in one year, and we reduced staff by around 22% from 26,000 to 21,000 in less than 12 months.



The Single Financial Market: A Swiss Perspective

Having the opportunity to present an opening statement at this panel discussion is for me at the same time an *honor*, a *pleasure* and a *challenge*.

It is obviously an *honor* given the very prestigious audience that you represent. When looking through the program in advance of this 29th Economics Conference, I was deeply impressed by the list of speakers from academia, politics, institutions, as well as the industry. It is in this sense that I consider it a great honor to be offered the possibility to speak to you over the next ten or fifteen minutes from the perspective of the Swiss Bankers Association (SBA).

It is also a *pleasure* to be here, to follow the speeches presented so far, and to discuss with you the impact of the European Monetary Union (EMU) from a general point of view in connection with issues specifically regarding the banking industry and financial services. My considerations are going to represent a broad and simplified “helicopter view,” in other words an incomplete “cocktail” of views and positions from the perspectives of both, the Swiss banking industry and financial sector and Switzerland or the Swiss economy as a whole.

Last, but not least, I am also faced with a major *challenge*. As already pointed out, my thoughts will be eclectic in nature, due to the obvious time constraint. Moreover, and although the single financial market has now been operational for nearly two and a half years, a great deal of its future impact on the Swiss economy and the Swiss banking sector remains speculative. And, according to the famous saying

of economists, “forecasts are difficult, particularly if they refer to the future.”

In what follows, I would like to address two points. First, I will briefly comment on the macroeconomic impact of EMU in Switzerland. From the setup of the



panel discussion I understand that it is my task to discuss the role of Switzerland as a non-EU and non-EMU country. Second, I will briefly talk about the impact of EMU on Switzerland from a regulatory point of view.

Macroeconomic Impact

Clearly, a long road has been traveled from Winston Churchill’s well-known words (“Therefore I say to you: Let Europe arise!”) in 1946 to EMU in 1999. And obviously, Switzerland has closely followed the development of EMU as well as the EU in recent years. From a very general macroeconomic perspective, the introduction of the euro as the EMU’s single currency has not affected Swiss economic policy directly. For example, as you all know, Switzerland still implements an autonomous monetary policy. However, the Swiss National Bank has, of course, to consider carefully the development of the exchange

rate between the euro and the Swiss franc.

The Swiss currency has a long history dating back to 1799, when the Helvetic Republic introduced the "Schweizerfranken" as a common unit for coins. The Swiss franc in its different forms has not always been totally independent. In 1865, for example, Switzerland entered the so-called Latin monetary union, a partnership that ended in 1926. Later our currency was de facto linked to the fixed exchange rate

exchange rate uncertainty Swiss interest rates – which have traditionally been low – would be forced to adjust to the higher euro levels, which, of course, would not be desirable from a Swiss perspective. The experience of the period 1999/2000, in which volatility of the Swiss franc relative to the euro fell to historically low levels, shows that an independent Swiss franc is important to the Swiss financial centre. In the absence of exchange rate uncertainty international investors would no longer consider our franc as an independent diversification currency, thus giving rise to a narrowing of the Swiss "Zinsbonus".

Rising interest rates, it is no secret, would not only harm

mechanisms of the Bretton-Woods agreement that broke down in 1973. Since then, the Swiss franc has steered an independent course. Since Switzerland did not enter into the European integration process, the question of participating in the European exchange rate mechanism or European Economic and Monetary Union never arose. Nevertheless, economic ties between Switzerland and its European neighbors are very close, which is also reflected in the parallel nature of their respective business cycles.

All the same, the question has arisen as to whether Swiss monetary autonomy remains the ideal strategy or whether, alternatively, the Swiss franc should be linked to the euro. Assessing the corresponding pros and cons typically produces the conclusion that Switzerland, due to its high degree of monetary stability, cannot be expected to gain very much from an exchange rate link to the euro. Without the veil of

the financial sector but the entire Swiss economy. Let me just remind you that with a contribution to gross national product of currently about 11% and with a proportion of employees of about 4%, labor productivity of the Swiss banking sector is high compared with other sectors of the economy. Also, the Swiss banking sector is of extreme international importance in terms of the total of balance sheets of banks relative to gross domestic product. By reorienting its monetary policy concept in December 1999, the Swiss National Bank has created the necessary conditions to guarantee the future independence of the Swiss franc. Exchange rate volatility has since reached the long-run average.

In addition to these aspects I have sketched concerning exchange rates, the single European currency has increased and probably will further increase competition, also in Switzerland. I do not have to elaborate on the very tight relationship



between Euroland and Switzerland. Everyone knows that Europe is an extremely important trading partner for Switzerland, both in terms of imports as well as exports. In this context of increased competition, I am firmly convinced that it is of enormous importance that Switzerland permanently enhances its attractiveness and economic competitiveness, based on a careful evaluation of comparative advantages. As far as the banking industry is concerned, this also implies promoting what we call the “Swiss Value Chain” (i.e. the integration of payment and settlement systems in securities dealing, following a philosophy of “Straight Through Processing”) and, more generally, the Swiss financial market infrastructure.

Within the Swiss economy, banks and the financial sector have been particularly affected by EMU. On the one hand, banks offer accounts and payment services in euro, and this required quite a lot of investment in information technology. Foreign exchange, of course, has been reduced. On the other hand, the introduction of a single currency has enhanced market transparency of financial services as well as reinforced existing trends in the fields of deregulation, globalization, disintermediation and the like. Both retail banking and private banking will be affected by these developments. The single financial market also confirms Swiss banks in their continuous evaluation of their strategic positions. Taken together, I would like to summarize the previous remarks in a “*Proposition 1*” as follows: The Swiss financial industry has to be aware of the fact that the introduction of EMU – even though Switzerland cannot be expected to become a member in the near future – increases international competition and, correspondingly, the industry

must permanently examine and enhance its international attractiveness.

Regulatory Impact

Turning now from macroeconomic considerations to some specific issues regarding financial market regulation, I would like to come up with my “*Proposition 2*.” The Swiss financial sector will have a relatively hard time avoiding regulatory discrimination. This is not a direct consequence of the single currency, but more generally results from Switzerland not being a member of the EU. I would like to illustrate this point with a recent example.

In April this year the European Commission has presented a final proposal for a directive on the supplementary supervision of credit institutions, insurance undertakings, and investment firms in a financial conglomerate. As is well-known, this proposal falls within the scope of the Financial Services Action Plan, the objective of which is, among other goals, to achieve prudential soundness and financial stability within the European Union. According to this directive, competent authorities may – in certain circumstances – require the establishment of a mixed financial holding company that has its head office in the European Community. More concretely, the corresponding authorities in the EU would have the power to force a non-EU parent undertaking (or mixed financial holding company) which is located in a jurisdiction deemed by the EU to have no equivalent supervision to establish a holding company within the EU solely for the purpose of supplementary supervision. Not only does this, from our perspective, con-



flict with elementary principles of supervisory cooperation, but it also may undermine the ability of the parent undertaking to be a source of strength for its subsidiaries, since it may incur significant tax and accounting liabilities and other costs in connection with such a restructuring. Therefore, this provision obviously has the potential to be detrimental to those conglomerates with head offices outside the Community.

My underlying intention is to illustrate with this example the more general point that in the field of international financial market regulation standing outside the EU and the EMU bears, of course, the danger of being at the receiving end of discrimination. Nevertheless, the fact that the Swiss Bankers Association is a member of the European Banking Federation (EBF), and, hence, the Swiss banking sector is represented at the European level, is reassuring and I could cite many other examples where coordination and cooperation between the EMU region and our country works in a very effective and constructive way.

As far as regulation is concerned, there would be a lot more to say concerning the New Basel Capital Accord, the discussion of a possible integration of financial market regulation, which is going on also in our country, on Lamfalussy and EU securities market regulation, on virt-x or on the ongoing revision of our National Bank Act, and so on. I hope that we will be able to address at least some of these issues in the subsequent panel discussion.

For the moment, let me finish by reiterating some points of general interest and coming to a conclusion: Switzerland, as a so-called “*smopec*”, a small open economy, has —

although not being a Member State — been affected by the introduction of the single European financial market in a number of ways. I do not consider it my role here to judge to what degree Europe can be considered as what is called an “optimal currency region.” At this point I am reminded of that wonderful definition of an economist: “An economist is someone who sees something work *in practice* and then wonders whether the same thing would also work *in principle*.”

Only the future will show the effects of a single currency to eliminate adjustment processes through nominal interest rates and to force exchange rate adjustments to take place via real exchange rates, i.e. via movements in international price levels.

Switzerland has a long tradition of economic and exchange rate stability. This is reflected in low inflation, moderate interest rates, and a significant international role for the Swiss franc. At the moment, pegging the franc to the euro would tend to produce more disadvantages than benefits. Switzerland has to keep its international competitiveness in a dynamic context, and the independence of the Swiss franc plays a central role for a competitive financial market.

Concerning regulation, the fact that the meeting of EU finance ministers some weeks ago in Malmö explicitly considered the underdeveloped financial sectors in many countries that would like to join the EU as a major challenge demonstrates in an impressive way the importance of financial regulation promoting both financial stability and international competitiveness. I thank you for your attention and look forward to our discussion. ☺

The Banking Industry and Financial Services

I first want to address three of the questions posed to the panelists by the organizers of this conference, and then briefly discuss what I think is an important aspect of the future of the banking industry in Europe: Will the traditional characteristic features of banking in continental Europe prevail in spite of worldwide deregulation and liberalization, globalization, financial integration in Europe, including EMU, and unprecedented advances in communication and information technology?

I Points for Discussion – Questions from the Chair

1.1 Do Banks Benefit from EMU, Financial Integration, and from Technical Progress, or are they Hurt?

EMU and financial integration in Europe will almost certainly strengthen the role of financial markets. This goes at the expense of banks in their traditional role as intermediaries. In so far, one could say that it hurts the banks as a group. Moreover, EMU and financial integration in Europe and globalization lead to increased competition between banks, and this should benefit their clients rather than the banks as a group. Thus overall, banks as a group will not benefit.

However, there are considerable differences between the way in which different groups or types of banks are affected by these factors. It seems appropriate to differentiate between three groups or types of banks. The first group comprises a selection of big universal banks which already have a strong position in investment banking, and those

banks which already are technically more sophisticated than others. These banks will probably benefit. The second group is that of large, but not very large universal banks with a national focus which do not have a protected market niche. Banks in this group are likely to suffer from the current developments. The third group comprises smaller and more locally oriented banks and in particular banks which are affiliated to large national networks like the savings banks and the cooperative banks networks. I tend to think that these banks will not be affected in a negative way to a great extent.



1.2 Consolidation of the European Banking Industry – Cultural or Political Impediments to Cross-border Mergers?

It is difficult to predict the extent and the forms of future consolidation in the banking industry. To date, most of the merger activity is confined to the individual national banking systems. The low level of cross-border merger activity is not due to cultural nor to political impediments, but rather to relatively simple economic arguments. The main reason why national mergers are undertaken these days is that there is a cost-saving potential. It can be exploited if two German or two Austrian or two Italian banks merge. In contrast, if Deutsche Bank and Banque Nationale de Paris (BNP) were to merge, or if one were to acquire the other, they would not

be in a position to cut jobs and close branches and save costs as a consequence of the merger.

Investment and wholesale banking has already been much more international than retail banking for a long time, and the trend toward consolidation in the investment banking field is already more pronounced than in the field of commercial banking. Again, the reason is economic in nature. In investment banking, size matters, and it matters all the more, the more important



capital markets are for those who seek funding and those who want to invest their savings. Size is important because it makes it easier for a bank to attract high-calibre staff and to establish and use reputation. Moreover, size

provides the advantage of “placement power” and thereby attracts important clients. As globalization and liberalization in Europe lead to much more merger and capital market-related activity in the real sector of the economies in Europe, the arguments favoring size in investment banking gain in importance. Thus, the trend toward consolidation in investment and wholesale banking is likely to continue in the future.

Of course, there are also cultural and political impediments to cross-border mergers. The main cultural impediment can be seen in the fact that integrating the staff and the operations of two banks is always difficult; and it is more difficult if these banks have different national identities. The organizational culture of almost all banks still reflects the important differences between the general economic, political, cultural, and social norms and patterns of the different European countries. The main political impediment is, in my

view, that in spite of relevant European regulation there also still are tendencies in some countries to protect the independence of a national bank when a takeover by a foreign bank is imminent. It is beyond the limitation of what an economist could claim to know if he were to assess whether the cultural or the political impediments to cross-border mergers and acquisitions are more important in practice. Moreover, it seems to me that both kinds of obstacles to European financial integration are losing force rapidly in spite of the recent failure of the EU takeover directive.

1.3 Should the Transformation of European Banking Better Be Done in Terms of Universal or Specialized Banking?

In particular since the last decade and after the second EU banking directive and the creation of the internal market, universal banking has become the general model of banking all over Europe. With much stronger competition and a growing importance of capital markets, this may change again in the near future.

In the past, the term universal bank was used in a broad sense to designate a bank which provides *all* kinds of banking services to *all* kinds of clients. Universal banks in this sense may continue to exist, but they are certainly no longer the prevailing form of banks even within national banking systems. Given the growing competitive pressure, the need to specialize is so great that banks will not want to remain universal banks in this broad sense. *A fortiori*, we will not have universal banks of this type covering several European countries.

However, one can also speak of universal banks in the sense of banks which provide a comprehensive set of services to *specific* groups of

clients. Universal banks in this narrower sense are here to stay and may even gain in importance in catering for specific, but economically important, groups of clients such as small and medium-sized firms. They are the appropriate organizational form for relationship banking.

2 Will the Characteristic Features of Banking in Continental Europe Prevail in the Coming Years, or Will They Rather Give Way to a General Adoption of either an Anglo-Saxon Model of Banking or some Mixture between Traditional European and American Banking?

In the past, banking in continental Europe has been characterized by a number of features that are quite specific to the region. They include the following:

- (1) a strong role of traditional banking in the sense of financial intermediation,
- (2) relationship banking and universal banking as the dominant model of banking,
- (3) nonprofit banking, or more specifically banks which are not strictly profit-oriented, as an important element in the banking industry,
- (4) the dominance of banks in the respective financial systems, and finally
- (5) important “structural” differences between national financial and banking systems.

One way of approaching the general topic of the future of the banking industry and financial services in Europe, consists in asking whether these characteristics are likely to

remain, or whether the financial systems in Europe will adapt to the Anglo-Saxon type of a financial system, which is capital market-dominated and in which banks play a role, but one that is different and much more limited than their traditional role in continental Europe.¹⁾

If there are fundamental changes ahead of us, they are likely to be a consequence of three important external developments:

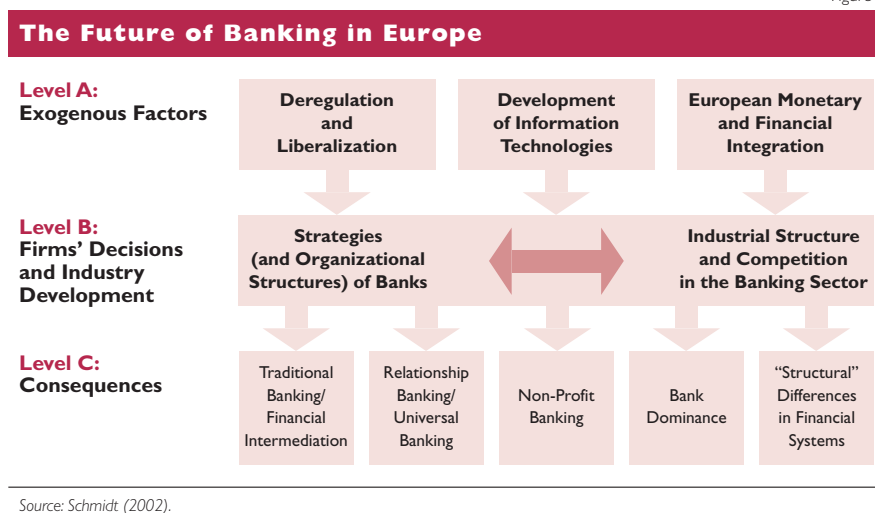
- (1) deregulation and liberalization,
- (2) advances in information and communication technology, and
- (3) economic, financial, and monetary integration in Europe and even worldwide.

But how could these developments shape the characteristics of banking in Europe? Any effects which they could have would be indirect effects. They would work through the strategies of banks and their nonbank competitors and the structure of the financial industry and the nature of the competition in the financial sector in Europe and in the individual European countries, which are in turn mainly a reflection of the strategies of the banks. The possible chain of effects is summarized in figure 1.

The three external developments are likely to affect bank strategies in several respects. As an immediate consequence of deregulation and liberalization competition is going to be stronger in the future. This will lead banks in Europe to pay more attention than in the past to cost-containment, to the option to leave certain markets or to enter them, and to alliances, acquisitions, and mergers. The traditional forms of bundling together different banking products and of following integrated pricing strategies, which has been a characteristic feature of uni-

¹ The argument summarized here is developed in more detail in Schmidt (2002).

Figure 1



versal banking in the past, may become less attractive or outright infeasible.

Advances in information and communication technology (ICT) will change bank strategies because they reduce the costs of producing banking services in general and because they tend to strengthen capital markets. ICT developments will increase the minimum efficient size of banks, because ICT costs are largely fixed costs.

Financial market integration and a common currency in much of Europe tend, first of all, to further strengthen capital markets and to weaken the traditional commercial banking business with large corporations as customers. Thus, recent developments tend to call into question the traditional concept of universal banking. However, the implications of financial integration, as well as the two other external factors, are very different for mainly retail-oriented commercial banks, for wholesale-oriented commercial banks, and for genuine investment banks. We are not likely to see a fully integrated European banking market any time soon except for wholesale (and) investment banking.

One implication of the three external factors and their interaction is that we can expect competition in banking to intensify in the near future as a general tendency. Competition between existing competitors is likely to become stronger, mainly because of the effects of ICT on the cost structures of banks. The efforts of banks to spread their higher fixed costs over a larger volume of business will induce them to compete for market shares, and this typically leads to a general pressure on bank profitability. Nonbanks and near-banks and organized capital markets are likely to enter markets which were formerly reserved for the banks of a given country. Market entry of various types of new competitors from other countries, which may be foreign banks or other financial service providers, has become at least a realistic possibility, if not a reality.

What does this suggest for the stability or the fading-away of the above-mentioned five peculiarities of continental European financial systems and banking systems? I want to limit myself to a few remarks here which will, hopefully, serve to stimulate the discussion.

1 The Important Role Played by Traditional Banking and Bank-based Financial Intermediation

Financial intermediation, i.e. the combination of deposit mobilization and lending, was once the essence of banking. The decline of financial intermediation in general and by banks in particular has been predicted for quite some time. Recent empirical research indicates however that this prediction was wrong at least until the late 1990s.¹⁾ But this might have changed recently. The growth of securities market activity in the years 1999 and 2000 points in this direction; and some big private banks are eager to react to this situation by curtailing their involvement in traditional banking operations. But I do not expect this to be a general tendency, and the steep decline of stock price levels and new issue activity in the past 12 months and specifically in the first half of this year tends to confirm my doubts concerning the view that the role of banks is changing in a fundamental way.

2 Relationship Banking as the Dominant Model of Banking

Relationship banking will remain an important feature of banking in Europe. But it is questionable whether it will remain the dominant model for all types of clients. Big and even not-so-big corporations have begun to use capital markets to a much larger extent than they used to, and many banks have shifted the focus of their activity to investment banking. In this context, the scope for relationship banking is limited. Relationship banking will, however, remain important or even increase its importance for small and medium-sized firms and thus also for the savings and cooperative banks

which will specialize, to an even greater extent than they have in the past, in serving these clients if, or because, private banks turn away from them.

3 The Important Role Played by not strictly Profit-oriented Types of Banks

In the past, savings banks and cooperative banks have played an important role in the banking systems of many European countries, and they clearly differed from other banks. This still holds true today. Cooperative and savings banks are not likely to be eliminated by market pressures. Their specific feature of not being strictly profit-oriented even has some advantages in the emerging new financial environment. They can benefit from the retreat of other banks from the segment of retail banking and lending to small and medium-sized firms; and they could generate successful pan-European alliances in the future, because the profit limitation to which they are subject tends to mitigate the temptation to act in an opportunistic manner toward their international alliance partners.

4 The Dominant Role of Banks, as Opposed to Capital Markets, in National Financial Systems

The importance of banks relative to capital markets will decline in the future. However, this does not imply that the financial systems in continental European countries will soon change their general character and become capital market-dominated. Whether a financial system can be considered bank- or capital market-dominated depends on many more aspects than merely the level of capital market activity. In spite of all the changes, banks seem able to

1 See Schmidt, Hackethal and Tyrell (1999).

maintain their strategic position in a financial system if this position has traditionally been strong. The current stock market crisis indicates quite clearly where banks as financiers may have a comparative advantage vis-à-vis capital markets: Based on the high level of information which they can obtain and evaluate, banks are better suited than capital markets to finance firms whose plans and prospects are difficult to assess, and to help their clients overcome difficult stages in their development by offering them a certain level of liquidity insurance.¹⁾

5 Considerable Differences between the Financial Systems of Different Countries

Even though the banking system in Europe will remain fragmented along national lines to a certain extent, banking markets and even capital markets are in the process of becoming more and more integrated. However, this alone will not eliminate the profound or “structural” differences which still exist between some financial systems in Europe. A financial system is a configuration of several elements which complement each other.²⁾ This feature makes coherent financial systems resistant to “structural” change and thus also to forces which could be assumed to lead to a gradual convergence. Increasing similarity with respect to one or a few elements is not sufficient to change the fundamental structure of a given

financial system and thereby leads to a convergence. However, it is an open question whether recent developments in the years 1999 and 2000 are important enough to undermine the coherence of the individual financial systems in Europe and thereby destabilize them, and whether they will converge after having been “sufficiently destabilized.”³⁾

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¹ Based on the pioneering work of Diamond (1984) and Diamond and Dybvig (1983), this is shown in Tyrell (2002).

² See Hackethal and Schmidt (2000) for details.

³ See Schmidt, Hackethal and Tyrell (2002).



FRANCO BRUNI



Summary Statement

This is not going to be a tentative summary of two days of hard work, neither it is my duty to draw conclusions from a long and variegated conference from which each of you has had, I am sure, a rather rich opportunity to derive many different and valuable ideas. I will simply try to offer a rapid synthesis of what I have personally received as the crucial messages of the various sessions of the conference. Which was magnificently introduced by the speeches of Governor Liebscher and of President Duisenberg. Their statements have been an illuminating guide to the very complex menu of problems that we have been discussing in the following three sessions on the evolution of European financial markets: the first on the convergence of national financial systems, the second on regulation and supervision, with the privilege of listening to the views of the President of Deutsche Bundesbank, the third on the consequence of new technologies. As to the final panel discussion, which has been going on until a few minutes ago, I will limit myself to saying that I enjoyed listening to the speakers and that their comments fitted very well, from different points of view, in the overall framework of the conference.

The basic message that I got from session 1 can be stated as follows. Accelerating the structural reforms of European financial markets is a

necessary condition for the sustainability of their convergence and for the consolidation of the success obtained with the introduction of the euro. Let me elaborate a bit on this synthetic message, also pointing to the fact that there are many connections between the topics of the first and the second session, between convergence and regulation.

Sir Edward George centred his contribution around the typically British idea that “there are many other things beyond the introduction



of the single currency that we can and should do” together in Europe to foster convergence.

I strongly agree with this idea but I think it can also be interpreted in, let me say, a non-British way. It is sufficient to add to Sir

Edward’s statement the following two sentences: (i) Only if these many other things are done, the euro will be a substantial success (which is, as I understand, a condition for Sir George to converge to it); (ii) on its part, the adoption of the euro can produce an automatic stimulus to do these other things, namely to accelerate the reform of financial markets.

This integration of Sir Edward’s sentences is precisely what I have understood as the substance of Ernst Ludwig von Thadden’s presentation. In his opinion, which I fully share: (a) We can be very optimistic about the direct and indirect gains that European markets are getting from the euro; (b) but our optimism must be moderated by some concerns: because the gains are not irreversible, in a model with multiple equilibria, and there is a danger to loose them if policy makers and regulators do not speed up the reform of European financial markets. These

reforms, along the lines of the Commission’s action plan and of the Lamfalussy project, should foster their true unification, including the establishment of common tax and accounting standards, the reorganization of regulation and supervision, the abolition of explicit and implicit obstacles to cross-border consolidation of the banking and financial industry.

I therefore think that both Governor George and von Thadden agree that currency unification and structural reform should complement each other in delivering convergence toward a fully integrated, efficient, and globally competitive European financial market. In this perspective the theme of regulation came also into the picture of our first session, connecting it with the second one. An important regulatory and institutional issue, to be sure, was explicitly anticipated by Franklin Allen during *session 1*: He argued that the European setting for dealing with banking and financial crises is seriously and dangerously inefficient, and that perhaps this is currently the major problem of the euro area.

But let me come explicitly to *session 2*. In the spirit of this conference, regulation is discussed as an issue for the euro area. Jean-Claude Thébaud gave us a very informative survey of the efforts of the Commission to improve the quality of financial regulation and supervision, pushing for a much stronger degree of cooperation between Member States’ national authorities.

An original taxonomic and theoretical perspective of the economics of financial regulation was then presented by David T. Llewellyn. It is from his sophisticated paper that I got the basic message of *session 2*: Economists have a lot of difficult work to do in order to suggest to policy makers a convincing and

coherent model of what could be an optimal regulatory regime. A “regime,” as Llewellyn calls it, is composed by several elements, that can be traded-off in subtle ways. Prescriptive rules constitute only one of these elements. In his opinion, it is not the more important, while the incentives are such that it is probably oversupplied. As Norbert Walter pointed out, Basel II is a move in the direction of Llewellyn’s concept of a regulatory regime. But in its current form it falls short of consistently achieving its ambitious aims. One feels that also the Basel proposals (on which specific comments and criticisms were offered by numerous speakers in this conference) lacks the theoretical support of a well-developed model of an optimal regime.

Let me introduce here the problem of the institutional arrangements that govern the assignment of responsibilities in matters of regulation and supervision. I think that such arrangements are another specific element of a “regime.” Discussions on how much and how central banks must be involved in regulation and supervision, on how valid is an FSA-type mega-regulator, on the independence and accountability of prudential authorities, are of utmost importance. But I share Llewellyn’s idea that they may be considered less important than the overall design of the regulatory regime. We are not prepared to make the right decision on the institutional setting, on who has to do what, until we have a more precise and convincing idea of what the substance of the prudential regime should be.

Just think of the comparison with monetary policy. The European monetary constitution has been chosen on the basis of a well-developed theory of optimal monetary policy, founded on the German tradition of price stability and long-

term oriented monetary strategy. Nothing as solid as that is still available in matters of prudential strategy. Neither in academia, nor among policymakers, neither in Europe, nor in the USA, where, to be sure, regulation and supervision, in spite of the ability of the American political system to produce frequent reforms, are still far from being framed in a rigorous and satisfactory way.

The problem of reforming the assignment of regulatory and supervisory responsibilities in the European Union has to be tackled with some impetus and without further delay, but:

- (i) without any dogmatism, because there will never be such a thing as a perfect solution;
- (ii) with the right mix of due respect and revolutionary spirit toward the special and vested interests of existing bureaucracies, currently bearing the responsibilities of prudential policies and having a valuable experience in their practical implementation;
- (iii) always thinking in a euro-area perspective, for the benefits of the European capital markets as a whole, avoiding moves toward conflicting national solutions;
- (iv) coming to a decision on a desirable institutional setting for the long term, but approaching it in a gradual way, not too fast, along a reform path where there must be room for learning by doing (has the U.K. reform been too precipitous?);
- (v) keeping in mind what President Duisenberg said here yesterday on this topic: that “details are crucial.” In this last respect let me cite the Austrian example.

The European Central Bank made available in its website its recent opinion (dated May 25, 2001) on a draft of the reform proj-



ect prepared by the Austrian Ministry of Finance. This project goes in a direction, namely the establishment of a new, comprehensive prudential authority, outside the central bank, which contrasts with the position expressed by the ECB in its official note released on March 22. The text of the ECB's opinion on the Austrian reform project starts by restating the general idea that any reduction in the involvement of the system of central banks in prudential supervision is inappropriate. But it then



goes on carefully suggesting a series of detailed improvements to the Austrian draft project. I counted six categories of suggestions collecting some 18 very specific proposed changes to the draft. As far as I understand, these changes would make the project compatible with the letter and the spirit of the Treaty and acceptable to the ESCB.

Quite apart from my personal opinion on the matter, I must say that reading this articulated opinion has enhanced my propensity to think that one must not be dogmatic in looking into this problem, that details are crucial, and that good solutions can be found within a framework of cooperation and careful exchange of views between the governments of Member States, national central banks and other regulatory authorities, the European Commission, and the ECB. We academics should serve as wise catalysts of this cooperative search and keep away from exacerbating potential conflicts making use of abstract models and one-sided theoretical ideas.

Session 3 has been about new technologies. Two years after the launch of the single currency, how much have we enhanced our vision

of the long-term impact of technological innovation on the functioning of financial markets and on the tasks of financial supervision?

The relationship between modern technological advances and financial activities is obviously very special. But I have been impressed by the opinion expressed here by Hermann-Josef Lamberti, member of Deutsche Bank's board, that it might be special to the point to make it difficult to decide whether the technological developments cause trends in financial markets or vice-versa. I had never thought to the possibility that progresses in information technology could be an effect, and not only a cause, of developments in financial markets. But it is certainly true that many producers of financial services are putting a lot of emphasis (with, perhaps, a bit of marketing effort) on the idea that they are operating through a period of enormous technical progress, that they are selling revolutionary products, that they are dominating tremendously new technologies for the benefit of financial efficiency.

Considering this emphasis, I have also been struck by Erich W. Streissler's point that the introduction of the telephone, at the end of the 19th century, has been a progress in technology the value of which, for financial transactions, can be considered 150 times larger than the value of recent Internet-type innovations. Are we making too much noise and perhaps not always in "bona fide," just because Santa Klaus brought us some new, little informational toys? Perhaps this is not the case, given that financial products are made of nothing else except of information. The marginal productivity of saving a unit of time in transferring information can thus be enormously increasing, in spite of the limits of the speed of reaction

of human brains, as the continuous flourishing of financial innovation proves. And I bet with Giovanni Toniolo, whose discussion of Streissler's paper has been very stimulating, that the institutional resistance to the potential international financial integration brought about by Internet, will be much more short-lived than the corresponding resistance that was opposed to the consequences of the previous century's technological shock.

But, be that as it may, one is tempted to consider as totally obvious facts that the impact of technological progress on financial markets (a) renders them more liquid; (b) makes them more transparent; (c) increases the degree of concentration in the financial industry; (d) makes these markets, to a certain extent, easier to regulate and supervise because information technology decreases, almost by definition, information asymmetries, while it increases both the incentives and the opportunities for market discipline and for self-monitoring and self-regulation.

The basic message that I got from *session 3* is that these consequences of technological progress are not so obvious. Certain aspects of technologically-induced financial innova-

tion, to be sure, have been pointed out that, in some cases, can limit the trend toward concentration in the financial industry, can put in danger both the liquidity and the transparency of financial markets, especially when incorporated in very exotic financial instruments, and, most importantly, can make regulation and supervision a much more complicated and sophisticated task.

In this respect, let me emphasize what Clive Briault has reminded us about the statutory objectives of the U.K.'s Financial Services Authority, that they include the active promotion of public understanding of the financial system and of the desirability of innovation and competition.

I think that by organizing this conference, and by proposing to discuss the topics to which the three well-connected sessions were devoted, also the Oesterreichische Nationalbank has been successfully pursuing the objective of promoting the public understanding of the European financial markets and of the desirability of innovation. As to the fact that what has to be understood remains difficult to understand, even after such a rich and successful conference, it is not a fault of the organizers! 🐼

GERTRUDE TUMPEL-GUGERELL



Closing Remarks

Ladies and Gentlemen,

We have now almost come to the end of this conference. We have seen one and a half days of extremely interesting and stimulating discussions. When we picked this conference's subject as "The Single Financial Market – Two Years into EMU", we had all the theories in mind that were discussed before the euro was introduced. Those theories tried to give answers to the question, what the impact of one common currency might be on the development of financial markets in the area concerned.

Prior to EMU it was argued that the single currency will

- enhance the depth and liquidity of capital markets,
- lower transaction costs,
- increase opportunities of diversification,
- make the European financial system more competitive and robust, and
- trigger a restructuring process in the banking and financial services industry.

Now, two years after the euro was introduced, we see that most of those predictions have come true to a large extent.

The banking and financial services industry has seen a fundamental consolidation process in recent years. In our discussions there was broad agreement that the environment for the provision of financial services has changed fundamentally.

Partly due to technological progress – one only needs to mention e-banking and the Internet – but also due to a much more globally oriented approach and growing competition the financial industry had to develop new products and new channels of distribution.

While risk capital has gained importance in corporate financing also in continental Europe, there is still an important role for banks to play as financial intermediaries. Especially in Austria and Germany,



but also in other countries where most of the economy accounts for small and medium-sized enterprises (SMEs) banks will remain the most important providers of credit and liquidity. Small financing volumes, low international profile, and high transaction costs make it difficult for SMEs to find direct access to the capital market.

In Central and Eastern European Countries and other emerging markets, where both financial regulation and supervision as well as liquidity of capital markets are not yet highly developed, banks will play an important role in corporate financing. Close personal contact with their customers and a thorough knowledge of a client's financial situation are other advantages of the banking industry. From the point of view of a central bank one should not underestimate the importance of banks in the transmission process from monetary policy decisions to the real economy.

Rapidly changing and increasingly globalized financial markets have given rise to many reform projects both on a European and on a global level in order to improve financial regulation and to prevent financial crises. Let me only mention a few:

- the Brouwer Group that worked on financial crisis management,
- the Group of Wise Men under the leadership of Mr. Lamfalussy, which provided us with new proposals on how to improve the supervision and integration of securities markets, or
- the so-called “Basel II” process which was touched upon on the first day of our conference.

The ideas of how to improve the functioning of financial markets are manifold. The obstacles that we face are mostly in the process of implementation of those ideas. I can therefore only support those in the conference who claimed for pressing on with the Financial Services Action Plan of the European Commission. The question of how high the degree of convergence should be is therefore more a question of increasing the convergence of financial regulation across borders rather than pushing for convergence of financial markets themselves.

One important brick in the building of financial stability is an up-to-date and effective financial supervision. There is a common interest among the financial industry, central banks, and governments to establish the best and most efficient system of financial supervision in order to maintain the stability of financial markets and to prevent possible crises at the earliest possible stage.

In our discussion we came to the conclusion that there is no one-size-fits-all solution for the best institutional setup of financial supervision.

“There are many ways that lead to Rome.”


There was broad agreement though that it is crucial to build up a European and international network to exchange information among supervisors. Through this network information shall be exchanged on a regular basis, but also in the case of an emerging crisis.

Another point that was raised in the discussions of yesterday and today was that there are many arguments in favor of a close involvement of central banks in financial supervision:

- synergies that emerge from monetary policy making and financial supervision,

- the use of the central banks’ profound expertise in monetary and financial issues, and

- the provision of adequate resources, necessary to cope with the future challenges of financial supervision.

The strong involvement of central banks in financial supervision has been a guarantee for financial market stability so far. In its recent publication on “The Role of Central Banks in Prudential Supervision” the European Central Bank stresses that “in ten of the twelve euro area countries, national central banks are either directly responsible for prudential supervision or strongly involved in its activity.” 

FRANZ-WENINGER-STIPENDIEN



Überreichung der Franz-Weninger-Stipendien der Oesterreichischen Nationalbank

Gouverneur Dr. Liebscher und Vize-Gouverneurin Dr. Tumpel-Gugerell überreichten am 1. Juni 2001 im Rahmen der 29. Volkswirtschaftlichen Tagung der Oesterreichischen Nationalbank die Franz-Weninger-Stipendien an vier Preisträger. Das Franz-Weninger-Stipendium wird von der OeNB für hervorragende Diplomarbeiten und Dissertationen auf dem Gebiet der Geldtheorie und Geldpolitik vergeben und erinnert mit seinem Namen an den vor fünf Jahren tödlich verunglückten Leiter der Abteilung für volkswirtschaftliche Analysen. Die Stipendien werden vom Direktorium der Oesterreichischen Nationalbank auf Vorschlag einer Fachjury vergeben.

Diesmal wurden die Franz-Weninger-Stipendien den im Folgenden genannten Personen für Arbei-

ten mit den jeweils angeführten Titeln zuerkannt:

- **Dr. Simon Quijano-Evans** für seine Dissertation „Can Movements in Emerging Market Currencies Be Explained Using Fundamentals-Based Exchange Rate Models?“
- **Mag. Harald Badinger** für seine Diplomarbeit „Adäquanz und Optimalität internationaler Reserven – theoretische Aspekte und eine Schätzung der Reservenachfrage Österreichs (1970 bis 1998)“
- **Mag. Martin Buchner** für seine Diplomarbeit „Markteffizienz und mechanistische Verfahren der Spekulation am Beispiel der USD/DM und USD/JPY-Wechselkurse“
- **Mag. Margit Hraschek** für ihre Diplomarbeit „Hatten die jüngsten Aktienkurssteigerungen Auswirkungen auf die Wechselkurse?“



DIE VORTRAGENDEN



Franklin Allen,

is Nippon Life Professor of Finance, Professor of Economics at the University of Pennsylvania, Co-Director at the Financial Institutions Center. He obtained his BA at the University of East Anglia in 1977 and his Ph.D. at the University of Oxford in 1980. He was Associate Director of Doctoral Programs from 1988 to 1990 and Vice Dean and Director of Doctoral Programs from 1990 to 1993. He was appointed a Research Fellow at Nuffield College, University of Oxford, the Yamaichi Visiting Professor at the University of Tokyo and the Metzler Visiting Professor at the University of Frankfurt and is primarily concerned with research on corporate finance, asset pricing, and the economics of information. In his current projects, he is researching on the comparison of the financial systems of different countries and on financial crises.

His professional career includes the following steps: since 1991 Associate Editor of "Financial Management;" from 1993 to 1996 Executive Editor of the "Review of Financial Studies;" from 1996 to 1997 Director of the American Finance Association and Vice President of the Western Finance Association; from 1997 to 1998 President-Elect of the Western Finance Association; from 1997 to 1999 President of the Society for Financial Studies; from 1998 to 2000 Vice President of the American Finance Association; from 1998 to 1999 President of the Western Finance Association and President-Elect of the American Finance Association; for 2000 President of the American Finance Association. He is also Director of the Glenmede Fund since 1991.

Recent publications include: "Comparing Financial Systems," co-authored with D. Gale, (MIT Press, 2000); "Financial Contagion," co-

authored with D. Gale (Journal of Political Economy 108, 2000), and "Using Genetic Algorithms to Find Technical Trading Rules," co-authored with R. Karjalainen (Journal of Financial Economics 51, 1999).

Graham Bishop,

is a member of the European Commission's Consultative Group on the Impact of the Introduction of the Euro on Capital Markets. Other functions include Deputy Chairman of the European League for Economic Co-operation (ELEC) – British Section, Council Member of the Federal Trust, Member of the Group Euro (the European Commission's panel of speakers on EMU), and member of the Advisory Board of the European Policy Centre.

During the past few years, Graham Bishop has been a Specialist Adviser to the Treasury Committee of the House of Commons (1998 and 1996 EMU Reports), Chairman of the London Investment Banking Association (LIBA) Committee on converting London's capital markets to the single currency, Deputy Chairman of the Kingsdown Enquiry of the Action Centre for Europe (ACE) on the implications of EMU for Britain (1995 and 1997 update), and Member of the European Commission's Strategy Group on Financial Services (1998) and Committee of Independent Experts on the preparation of the changeover to the single currency (the 'Maas' Committee 1994/5). In addition, he participates in studies and meetings of research institutes such as the Royal Institute of International Affairs, the Centre for the Study of Financial Innovation (CSFI), and Société Universitaire Européenne de Recherches Financières (SUIERF).

Several continuing themes have dominated his work at Salomon Smith Barney, starting with the tech-

nical nature of the financial system and building up to the political impact of modern markets: EMU and the impact on financial institutions and the structure of financial markets, the role of financial markets in the drive to EMU, EMU and the role of market discipline in maintaining fiscal sovereignty, EMU and Political Sovereignty. This work started as the "1992" single market program commenced and then expanded as negotiations started for the Treaty of Maastricht. Serious preparations for the introduction of the single currency began in 1994 and that provided another stimulus.

Graham Bishop graduated from Sheffield University in 1972 with a degree in Jurisprudence and worked for U.K. stockbrokers, Phillips & Drew, as an international economist with particular reference to equity markets. In 1979, he joined S. G. Warburg to manage pension fund portfolios. His emphasis moved from European equity markets to bonds and currencies, culminating in a move to Salomon Brothers. Initially, his economic commentaries covered the bond and currency markets of Europe. He has authored Salomon Brothers research on the issues surrounding monetary union since it became a serious possibility in 1988. As Adviser on European Financial Affairs at Salomon Smith Barney in London, he reported to the Co-Chief Executives in Europe.

Christophe Bisière,

is Professor of Finance at the University of Perpignan since 1998 and Director of the Department of Economics and Management at the University of Perpignan. He earned his Ph.D. at the Aix-Marseille II University in 1994. In 1988, he obtained diplomas in international economics and finance and in computer science and mathematics at

the Aix-Marseille II University. His teaching experience includes graduate and undergraduate courses in international economics, financial economics, macroeconomics, operational research, and in empirical finance.

His recent research is published in the following papers: "Timing of orders, orders aggressiveness and the order book in the Paris Bourse," co-authored with Th. Kamionka (*Annales d'Économie et de Statistique* 60, 2000), "Short sales constraints, liquidity and price discovery: an empirical analysis on the Paris Bourse," co-authored with B. Biais and J.-P. Décamps" (*European Financial Management*, 5, pp. 395–409, 1999), and "SD-SOLVER: towards a multidirectional CLP-based simulation tool. Framework and short financial examples" (*Computational Economics* 9, pp. 299–315, 1996).

Clive Briault,

has been Director, Prudential Standards, at the Financial Services Authority since April 2001. He joined the Bank of England in 1980 and, after a period of working on international finance (including a secondment to Schroders) and in banking supervision, worked as Private Secretary to the Deputy Governor from 1989 to 1991, as Head of Monetary Assessment and Strategy from 1991 to 1996, and Head of Capital and Wholesale Markets Division from 1996 to 1998. He joined the Financial Services Authority at its formation in 1998 as Director of Central Policy.

Franco Bruni,

is Full Professor of International Monetary Economics at Bocconi University in Milano, where he was Director of the Department of Economics from 1994 to 2000. He grad-

uated in economics at Bocconi University in 1971 and obtained a Master of Science in economics at the Massachusetts Institute of Technology in 1974. From 1987 to 1990 he has served as Full Professor of Economic Policy at the State University of Brescia. From 1998 to 2000 he was a member of the Founding Committee of the Free University of Bolzano. He has been visiting professor at New York University, University of California at Berkeley, Chulalongkorn University at Bangkok, Getulio Vargas University at Sao Paulo, and Instituto de Estudos Europeus of the University of Macau.

He has been working for parliamentary and governmental study groups on the Italian banking and financial system. In 1997, he has participated in the European Commission working group on the "Impact of the Single Market Programme and of EMU on the European Banking Sector." In 1998, he has contributed to the Report for the European Council of Cardiff of the Commission's Competitive Advisory Group, on "Capital Markets and Competitiveness." He is currently a member of the International Steering Committee on "Policies for the Global Market" set up by the Italian Confederation of Industry.

He is Deputy President and Scientific Director of Milan's Institute for International Political Studies (a think tank connected to Italy's Ministry of Foreign Affairs), Editor of the "Giornale Degli Economisti e Annali di Economia" (the oldest and best-known Italian academic journal in the field of economics), member of the Council of Management of the Société Universitaire Européenne de Recherches Financières (of which from 1995 to 2000 he has been Vice President and then President), member of the European

Shadow Financial Regulatory Committee. He writes editorials for "La Stampa".

He serves as an independent director, member of the board of, UniCredito Banca Mobiliare, Pioneer Global Asset Management, and other financial companies, as well as of Saipem, a major multinational oil service company. He is author of many publications in the fields of macroeconomics, money and banking, international finance.

Willem F. Duisenberg,

was born in the Netherlands in 1935. After completing his secondary education in 1954, he studied at the University of Groningen and graduated with a degree in Economics (cum laude) in 1961. From 1961 to 1965 he worked as a teaching assistant during his postgraduate studies at the University of Groningen and was awarded a doctorate (PhD) in 1965. In the same year he joined the staff of the International Monetary Fund (IMF), Washington, DC. He returned to the Netherlands in 1969 to join De Nederlandsche Bank as Adviser to the Governing Board. Dr. Duisenberg was appointed Professor of Macroeconomics at the University of Amsterdam in 1970, a position he held until 1973, when he became Dutch Minister of Finance. From 1977 to 1978 he was a Member of Parliament for the Partij van de Arbeid (Socialist Party) and from 1978 to 1981 was a member and Vice-Chairman of the Executive Board of Rabobank Nederland. Dr. Duisenberg rejoined De Nederlandsche Bank as Executive Director in 1981 and was appointed President in 1982, holding this post until 1997. Between 1988 and 1990 and from January 1994 to June 1997 he was Chairman of the Board and President of the Bank for International Settlements (BIS) in Basle,

and between 1991 and 1993 served as a member of the Board of Directors of the BIS. Dr. Duisenberg was a member of the Council of the European Monetary Institute (EMI) from January 1994 to June 1997 and President of the EMI from July 1997. Since 1 June 1998 he has been President of the European Central Bank (ECB).

Arturo Estrella,

is Senior Vice President and head of the Capital Markets Department in the Research and Market Analysis Group of the Federal Reserve Bank of New York. He first joined the Bank as an economist in 1983 and has held various positions in research, bank supervision, and markets. He holds a Ph.D. in economics from Harvard University, as well as graduate degrees in pure and applied mathematics. He has published extensively in the fields of finance, macroeconomics, monetary policy, bank regulation, and econometrics.

Since 1991, he has participated in the development of capital standards set by the Basel Committee on Bank Supervision. In this connection, he has been a member of the Off-Balance Sheet and Capital Groups, and is currently a member of the Basel Committee's Research Task Force. In 2000, he chaired an international working group that published a comprehensive report on credit ratings and complementary sources of credit quality information, distributed by the Basel Committee.

He has previously held positions as manager of portfolio strategy of the General Motors Investment Funds and as chief actuary of the Retirement System of the Government of Puerto Rico. He has been a lecturer in economics at the Fordham University Graduate School and in quantitative methods at the

University of Puerto Rico Business School.

Recent publications in the area of bank regulation include: "A Prolegomenon to Future Capital Requirements" (Economic Policy Review, Federal Reserve Bank of New York, July 1995), "Formulas or Supervision? Remarks on the Future of Regulatory Capital" (Economic Policy Review, Federal Reserve Bank of New York, October 1998), and "Regulatory Capital and the Supervision of Financial Institutions: Some Basic Distinctions and Policy Choices" (In: Challenges for Modern Central Banking, Sveriges Riksbank, 2001).

Sir Edward George,

was educated at Dulwich College and Emmanuel College, Cambridge, and graduated in Economics in 1962. After leaving Cambridge he immediately joined the Bank of England, where he initially worked on East European Affairs. From 1964 to 1965 he was seconded to Moscow State University to study Russian. From 1966 to 1969 he worked as an economist for the Bank for International Settlements in Basel, and from 1972 to 1974 as personal assistant to Sir Jeremy Morse, who was then Chairman of the Deputies of the IMF's Committee on International Monetary Reform (Committee of Twenty). Before being appointed Deputy Governor of the Bank of England in March 1990, he worked as adviser in the Overseas Department on external and international monetary questions, assumed the post of the Deputy Chief Cashier, in which function he was particularly concerned with the management of the gilt-edged market, the implementation of monetary control and with the management of public sector external borrowing; the post of the Assistant Director in charge of

the Gilt-Edged Division; and then of Executive Director with responsibility for monetary policy, market operations and market supervision.

In 1993 he was appointed to a five-year term as Governor, which was renewed in 1998. In 1994 he was elected an Honorary Fellow of Emmanuel College. In 1999 he was appointed a member of the Privy Council and Chairman of the G10 Governors. In 2000 he received the Grand Cross of the Order of the British Empire.

Karl-Heinz Grasser,

born in 1969, was appointed Federal Minister of Finance of the Republic of Austria in February 2000. He completed his studies of applied business administration at the University of Klagenfurt in Austria in 1992. In the same year he joined the parliamentary group of the Austria Freedom Party (FPÖ), where initially he was entrusted with issues regarding European integration and tourism. His further professional career includes the following steps: 1993 Secretary General of the FPÖ and Managing Director of the Freedom Party's educational center; 1994 Second Deputy to the Governor of Carinthia; 1998 Vice President for Human Resources and Public Relations of Magna Europe. In 1999, he was also entrusted with the management of the Magna Group's affiliate Sport Management International (SMI). Until the end of 1999 he was a Board Member of the Sir Karl Popper Foundation, in which he still is a regular member. Being Federal Minister of Finance he serves as the Austrian Governor at the following international organizations: the World Bank Group, the Asian Development Bank, the Inter-American Development Bank, Inter-American Investment Corporation, the African Development

Bank, the African Development Fund, the European Bank for Reconstruction and Development and the European Investment Bank.

Esa Jokivuolle,

born in 1964 in Kannus, Finland, he holds a Master's degree in economics from the University of Helsinki and a Ph.D. in finance from the University of Illinois at Urbana-Champaign. He is currently working as a project supervisor at the Bank of Finland's financial markets department. He also acts as Lecturer, specialized in derivatives and risk management, at the Helsinki School of Economics.

Previously, he was a research fellow at the University of Helsinki and he also served as a deputy director of the Finnish Postgraduate Program in Economics. From 1997 to 1999 he was a senior quantitative analyst in Leona plc, then the second largest commercial bank in Finland. His main responsibility was the development of credit risk portfolio management.

Currently, he is a member of the European Commission's Working Group on Internal Ratings concerning the capital adequacy reform. His earlier research on stock indexes and index options has been published in well-known finance journals and his work on The New Basel Accord, joint with Samu Peura, has recently appeared in the Risk Magazine.

Hermann-Josef Lamberti,

is a Member of the Board of Managing Directors of Deutsche Bank AG. In this role he is responsible as Chief Information Officer (CIO) for Group-wide Information Technology. In addition he is in charge of the distribution channel of the business area Private Clients and Asset Management (PCAM), comprising Deutsche Bank 24, Private Banking and Asset Management.

Until the end of 2000 he was Head of Global Technology and Services and the European Transaction Bank. Mr. Lamberti successfully managed the GTS-Transformation, IT-Integration of Bankers Trust as well as the Y2K compliance.

Hermann-Josef Lamberti was appointed Member of the Board of Managing Directors effective October 1999.

Before joining Deutsche Bank, Hermann-Josef Lamberti was with IBM for the better part of two decades. He began his career at IBM in 1985 as a management trainee, and was soon entrusted with management positions in the company's German offices involved with the banking and insurance industries. In 1993, he then moved on to appointments at IBM Europe in Paris, where he was General Manager of the Personal Software Division and headed software sales for Europe, the Middle East and Africa. In 1995, Mr. Lamberti transferred to IBM in the U.S., where he was Vice President for Marketing and Brand Management for IBM's mainframe business. Mr. Lamberti returned to Germany in 1997 to become General Manager of IBM Germany in Stuttgart.

Hermann-Josef Lamberti studied in Cologne and Dublin before starting his professional career in the financial sector. In 1981 he took his degree in Business Administration and began working for Touche Ross in Toronto where he was involved in auditing and consulting and he also worked for Chemical Bank in Frankfurt in the Foreign Exchange Trading sector.

Klaus Liebscher,

born in 1939, is presently serving as Governor of the Oesterreichische Nationalbank (OeNB). Moreover, since the foundation of the European Central Bank (ECB) in June 1998 he

has been an independent member both of the ECB Governing Council and the ECB General Council. He also represents the OeNB at the Bank for International Settlements (BIS) Governors' Meeting and is Austria's Governor to the International Monetary Fund (IMF).

Before he joined the Oesterreichische Nationalbank on June 1, 1995 – then presiding the General Council of the Bank as its President until August 31, 1998 – he started at the Raiffeisen Zentralbank Österreich AG in 1968, where he was a member of the Executive Board since 1980 and Chief Executive Officer and Chairman of the Board from 1988 to 1995. He served as President of the Vienna Stock Exchange Council from 1990 to 1995 and on the supervisory boards of several banks and other corporations in Austria and abroad.

Mr. Liebscher earned his law degree (Dr. iur.) at the University of Vienna.

David T. Llewellyn,

is Professor of Money and Banking at Loughborough University and Chairman of the Loughborough University Banking Centre.

After graduating from the London School of Economics, he worked in the Economics Department of Unilever in Rotterdam. He subsequently served in the Economic Section of the U.K. Treasury, and then as a Lecturer in Economics at the University of Nottingham. Between 1973 and 1976 he worked in Washington at the International Monetary Fund. In 1976 he was appointed to the Chair of Money and Banking in the Department of Economics at Loughborough University, and is Chairman of the Loughborough University Banking Centre. He writes and researches extensively in the field of financial regulation,

the structure of financial systems, banking and financial markets, and in strategies and financial performance of financial institutions. His latest books include: "Financial Regulation: Why, How and Where Now?" (co-authored with C. Goodhart and others) and "The New Economics of Banking."

Outside the University, he is the Consultant Economist to Butlers (a division of money brokers Garban InterCapital), and a member of the International Advisory Board of the Italian Bankers Association. He has been a Public Interest Director of the Personal Investment Authority, the PIA Ombudsman Bureau, and Chairman of the PIA's Effectiveness and Strategy Committee which was responsible for advising the Board on the PIA's regulatory strategy and monitoring its effectiveness. He has served as a consultant to banks, building societies, central banks and regulatory authorities in several countries, including Sweden, Norway, Finland, Iceland, South Africa, Australia, Poland, and the Czech Republic. He is currently a member of a four-person Regulation Task Force at the Reserve Bank of South Africa. In 1998 he became a founder member of the European Shadow Financial Regulatory Committee.

In May of last year he was elected President of SUERF (Société Universitaire Européenne Recherches Financières) which has its permanent secretariat at the Oesterreichische Nationalbank in Vienna. SUERF is a network of European central banks, banks and academics with a research or professional interest in banking and financial markets.

One of his current projects is an analysis of the causes, consequences and public policy responses of banking crises, some of which has been in conjunction with the Bank of England, International Monetary Fund,

and the Nederlandsche Bank. In 2000 he was commissioned by the Bank of England to co-author a study on systemic stability for the Central Bank Governors' Symposium.

Alessandro Profumo,

born in Genoa (Italy) in 1957, earned a Degree in Business Economics from the Luigi Bocconi Business University in Milan. Alessandro Profumo is Chief Executive Officer of the Unicredito Italiano Group, Chairman of the Supervisory Board of Bank Pekao, Member of the Board of Directors and of the Executive Committee of Mediobanca, and Chairman of Xelion Sim. He is also Deputy Chairman of UniCredito Banca Mobiliare (UBM) and holds a number of posts within the Unicredito Italiano Group of banks.

In 1977, he joined Banco Lariano, where he gathered ten years' experience in the bank's branches and headquarters in both the commercial and executive areas. After that he joined McKinsey & Co., where he was involved in three strategic and organizational projects for financial companies. In 1988, he joined Bain, Cuneo & Associati. Here he was in charge of marketing, study and the completion of numerous projects as well as the development of relations with financial institutions. After an engagement with Riunione Adriatica di Sicurtà (RAS) as its General Manager in charge of the banking and parabanking sectors, his main responsibilities including the yield increase of the company's bank and of the other group companies operating in the field of asset management, in 1994 he joined Credito Italiano as Deputy General Manager in charge of Planning and Group Control. A year later he was appointed Chief General Manager and in 1996 Chief Executive Officer, both at Credito Italiano. In 1999

he was nominated Chief Executive Officer of UniCredito Italiano. Other posts Alessandro Profumo held include Member of the Executive Board of Associazione Bancaria Italiana (ABI – the Italian Banking Association), Member of the Association for the Development and Study of Banks and the Stock Exchange, Member of the Institut International d'Etudes Bancaires, and Member of the Executive Board of the Italian Association for Cancer Research (AIRC).

Helmut Reisen,

born in 1950, is Head of Division of the Research Department at the OECD Development Centre since 1994. He studied economics at Saar University of Saarbrücken and graduated in 1976. He obtained his doctorate in economics at the University of Cologne in 1987 and his habilitation at the University of Basel in 1993.

His professional experience includes banking at the Commerzbank AG, Mönchengladbach, assistantship in economics at Saar University of Saarbrücken from 1976 to 1977, the position of a Research Fellow at the Kiel Institute of World Economics from 1977 to 1980, the activity as an adviser for the Confederation of German Industries in Cologne and the German Ministry of Economics in Bonn since 1981. He worked as an economist and senior economist at the OECD Development Centre in Paris from 1983 to 1994.

He is Professor of International Economics at the University of Basle, Founding Member of the Advisory Board of International Finance, Member of the American Economic Association, and the Verein für Socialpolitik.

Urs Philipp Roth,

born in 1947, is Chief Executive Officer of the Swiss Bankers Association (SBA) and Delegate of its Board of Directors.

After finishing his law studies with a doctorate in Zurich and qualifying as an attorney-at-law, Urs Philipp Roth joined UBS in 1976 and worked until March 2001 in Zurich as UBS AG's Group General Counsel. As such he was responsible for advising UBS AG globally on legal and compliance issues.

He has served for many years on various commissions and working groups of the SBA. Since January 2001 he has also chaired the Executive Committee International Financial Centre Switzerland (LAIF). He holds a teaching post at the University of Zurich and lectures extensively on political and legal issues affecting financial markets. In recent years he has written numerous academic papers on banking and stock exchange law. He is also co-editor of commentaries on stock exchange and banking law.

Walter Rothensteiner,

born in 1953, became Member of the Board of Management of Raiffeisenlandesbank Lower Austria-Vienna in 1990. He was also appointed Member of the Board of Management of Leipnik-Lundenburger Industrie AG and of AGRANA-Beteiligungs-AG (sugar and starch industry), where from 1992 to 1994 he was also Deputy Chairman. In 1995 he was appointed Deputy Chairman and – later in the same year – Chairman of the Board of Management of Raiffeisen Zentralbank Österreich AG (RZB-Austria). He is Honorary Consul-General of the Republic of Singapore in Austria. As an additional function Dr. Rothensteiner became President of the Department of Bank and

Insurance at the Federal Economic Chamber of Austria in 1997.

Reinhard H. Schmidt,

born in 1946, is Wilhelm Merton Professor for Business Administration and International Banking and Finance at the University of Frankfurt since 1998.

He concluded his studies of business administration and economics at the Universities of Heidelberg and Frankfurt in 1971. In 1974, he obtained his Ph.D. degree in economics and business administration. After visiting the Graduate School of Business of Stanford University as a scholar from 1975 to 1976 and working as Assistant Professor of Business at the University of Frankfurt from 1977 to 1981, he earned his habilitation in the field of business administration in 1980.

From 1981 to 1983 Reinhard H. Schmidt was Associate Professor of Finance at the University of Göttingen. From 1983 to 1991 he was Full Professor of Business Administration and Finance at the University of Trier and from 1989 to 1990 Visiting Konrad Adenauer Professor at the Georgetown University in Washington, D. C. Principal fields of research and teaching include financial theory, in particular capital markets and institutions, finance in developing countries, organization theory and corporate governance and comparative financial systems. His main research project to date deals with the convergence of financial systems in Europe (with the financial support of Deutsche Forschungsgemeinschaft). Among his publications are 16 books, about 40 articles in German and international academic journals, and about 60 chapters in books.

Dirk Schoenmaker,

was born in the Netherlands in 1967. He obtained his Master in Business Economics in 1990 (cum laude) and his Master in Law in 1991, both at the Erasmus University in Rotterdam. In 1995, he earned his Ph.D. in Economics at the London School of Economics. During his studies he served as an intern at the Department for International Affairs of De Nederlandsche Bank (Dutch Central Bank) (in 1991) and as a Summer-intern at the Capital Markets and Financial Studies Division of the International Monetary Fund (in 1994), where he was also a Visiting Scholar in 1995. From 1991 to 1996 he was Research Officer on Financial Regulation of the Financial Markets Group at the London School of Economics. In 1996, he joined the Bank of England, where he served as a Senior Analyst of Banking Supervisory Policy in the Division of Supervision & Surveillance. In 1998, he joined the Ministry of Finance of the Netherlands, where he was first appointed Deputy Head and a year later Head of the General and Monetary Affairs Division of the Financial Markets Policy Directorate. Since November 2000 he is Head of the Financial Stability Division of the Financial Markets Policy Directorate at the Ministry of Finance.

Wolfgang Schüssel,

was born in Vienna on June 7, 1945. Following his elementary schooling, he attended a well-known classical grammar school in Vienna (the "Schottengymnasium") where he took his secondary school leaving certificate in 1963. He went on to study at Vienna University and received a Doctorate in Law in 1968. Dr. Schüssel was secretary of the parliamentary group of the Austrian People's Party (ÖVP) from 1968 to 1975; from 1975 to

April 1991 he was Secretary General of the Austrian Business Federation, a sub-organization of the People's Party. On April 24, 1989 Dr. Schüssel became Minister for Economic Affairs in the coalition government formed by the Austrian Social Democratic Party (SPÖ) and the People's Party under Chancellor Franz Vranitzky. At the 30th Party Congress of the ÖVP, Dr. Schüssel was elected national leader of the Party on April 22, 1995. On May 4, 1995 Dr. Wolfgang Schüssel was sworn in as Vice-Chancellor and Federal Minister for Foreign Affairs in Franz Vranitzky's fourth government. He held the same posts in Chancellor Vranitzky's fifth Cabinet. In Chancellor Klima's first government, from January 28, 1997 to February 4, 2000, Dr. Schüssel was again Vice-Chancellor and Federal Minister for Foreign Affairs. On February 4, 2000 Dr. Wolfgang Schüssel was sworn in as Federal Chancellor.

Erich W. Streissler,

was born in 1933 in Vienna as the son of Dr. Albert Streissler, who worked at the Ministry of Finance and was later director of the Österreichisches Hypotheken- und Creditinstitut. He obtained his Ph.D. at the Vienna Law School in 1955 and passed the habilitation in economics in 1959 in the same school.

He was appointed Full Professor of Statistics and Econometrics at the University of Freiburg in Germany and was twice Dean of the Faculty and Political Science. Since 1968 he was Full Professor of Economics, Econometrics, and Economic History at the University of Vienna (in the chair formerly held by Carl Menger). From 1973 to 1974 he was Dean of the Faculty of Law and Political Sciences in Vienna. During his studies and researches he visited

the United States, Spain, France, England, and was a frequent guest at Oxford University. In 1983 he was appointed Distinguished Austrian Visiting Professor at Stanford University in California.

He is a member of the Bavarian, Hungarian, Austrian, and European Academy of Sciences. From 1990 to 1991 he was President of the Confederation of the European Economic Associations. Since 1992 he is Treasurer of the International Economic Association. His teaching includes economics, econometrics, and the history of economics, his special interests being devoted to exchange rate theory, social old age and health insurance, history of theory and science, especially regarding Adam Smith, liberalism, German national economy from 1825 to 1880, and the Austrian School of National Economy.

Ernst-Ludwig von Thadden,

is Professor of Economics at Université de Lausanne. He has been Fellow of the Center for Advanced Studies in the Behavioral Sciences at Stanford University and is Research Fellow of the Center for Economic Policy Research in London. He studied mathematics and economics at the University of Heidelberg, obtained his Ph.D. in economics from the University of Bonn within the "European Doctoral Program in Economics," and a Habilitation in economics from the University of Basel.

He is director of the FAME doctoral program at the Universities of Lausanne and Geneva and member of the scientific boards of a number of academic and professional institutions. He has been an advisor to the World Bank and other international organizations. Among his academic activities are the editorship of the Journal of Financial Intermediation and associate editorship

of the Review of Economic Studies. He has written extensively on issues ranging from game theory to financial institutions and law and economics.

Jean-Claude Thébault,

born in 1950 in Paris, has been an official of the European Commission since 1984. After finishing his studies in public law at the University of Rennes in 1974, he obtained a postgraduate diploma in public law, with a specialisation in public international law, at the University of Paris in 1975 and a postgraduate accountancy qualification.

From 1976 to 1979 he worked at the Caisse des Dépôts et Consignations in Paris, where he was assistant to the head of the department responsible for managing loans to local government and social housing and researcher in the department responsible for loans to public amenities. From 1979 to 1983 he was organizational consultant with SINORG, an information technology consultancy, posted to Abidjan (Côte d'Ivoire) as advisor to the Ministry of Economics and Finance and head of the Cabinet of the Director-General of Finance.

He joined the Directorate-General XX in 1984, where he was in charge of the financial control and, later, principal administrator in Unit XX/B/2, with responsibility for the control of EAGGF Guarantee Section expenditure. After working at SG-UCLAF from 1988 to 1989, where he was involved in the creation and establishment of the Coordination of the Fraud Prevention Unit, he assumed the position of the Head of the Common Agricultural Policy Unit of the DG for Budgets, responsible for PAC budget management and control, in 1989. From 1995 to 1998 he was Deputy Chef de Cabinet to Yves-Thibault

de Silguy, European Commissioner responsible for economic, financial and monetary affairs and the statistical office. He was in charge of the general coordination and questions relating to agriculture, budget and personnel, fisheries, financial control and fraud prevention, employment and social affairs, political and social cohesion policy, tax and customs. After his engagement as the Director of the Forward Studies Unit of the European Commission from 1998 to 2000 he was appointed Director of the Direction of Financial Institutions at the Directorate-General Internal Market in June 2000.

Gianni Toniolo,

is Professor of Economics at the University of Rome Tor Vergata and Research Professor of Economics at Duke University, Durham, U.S.A. He currently is Research Fellow at the Centre for Economic Policy Research (CEPR) in London, Member of the Board of Trustees of the European Association of Historical Economics, Member of the Board of Directors of Venice International University, and holds the Chair in the Program Committee of the Mattioli Memorial Lectures in Milan. Additionally, he is Executive Vice President of Fondazione Cassa di Risparmio di Venezia and columnist for the Italian daily "Il Sole 24 Ore."

He earned a degree in economics "summa cum laude" at the University of Venice in 1966. From 1967 to 1968 he was Research Fellow of the Economic History Workshop at Harvard University. From 1968 to 1986 he was, first, Assistant Professor of Economics and, then Associate Professor of Economic History at the University of Venice. From 1986 to 1996 he was appointed Professor of Economics at the University of Venice. His visiting positions include

the Duke University, Durham, All Souls College and St. Antony's College in Oxford, the University of California in Berkeley, U.S.A., Hitotsubashi University in Tokyo, and the University of Connecticut, U.S.A.

He is co-editor (with P. Ciocca and G. Federico) of the "Rivista di Storia Economica," co-editor (with C. Feinstein, P. O'Brien, B. Supple and P. Temin) of the "Cambridge Studies in Modern Economic History," and co-editor (with T. Bianchi, P. Ciocca and M. Onado) of "Storia di banche." He is a member of the editorial board of "Industrial and Corporate Change," "European Economic History Review," "Journal of Modern Italian Studies," "Jahrbuch für Wirtschaftsgeschichte," "Revue Economies et Sociétés," of the series "Histoire Economique Quantitative," and of the "Bulletin of Economic Research." He is a Member of the Academia Europaea in Cambridge, U.K., and a Senior Common Room Member of St. Antony's College in Oxford. Additionally, he is a member of the European Economic Association, of the Società Italiana degli Economisti, the Società Italiana degli Storici dell'Economia, the Economic History Association, the Economic History Society, the Cliometric Society, and the European Historical Economics Society.

Gertrude Tumpel-Gugerell,

born in Killing (Lower Austria), graduated with honors from high school in St. Pölten in 1971 and with honors from the University of Vienna with a master's degree in economics and social sciences in 1975. In the same year she joined the Economics Department of the Österreichische Nationalbank (OeNB), attended the Financial Analysis and Policy Training Program of the Inter-

national Monetary Fund in 1980 and received a doctorate of economics and social sciences in 1981.

She worked from 1981 to 1984 as the economic policy advisor to the Minister of Finance and was a member of the Supervisory Board of Österreichische Länderbank AG. In 1985 she was appointed Deputy Head of the OeNB's Economics Division and in 1986 became Comptroller General and put in charge of developing strategic planning and auditing. From 1990 she has represented the OeNB in economic and social science research institutes, was appointed Director of the Area Corporate Planning and Management at the OeNB in 1992. From 1996 she has been in charge of coordinating the OeNB's preparations for EMU, was appointed Chief Executive Director of the Economics and Financial Markets Department in 1997 and in September 1998 became Vice Governor of the OeNB.

Mrs. Tumpel-Gugerell is a member of the Council for the Foundation of Fachhochschulen (specialized institutions of higher education) in Austria, the International Relations Committee and the Banking Supervision Committee of the ECB, the Economic and Financial Committee and Vice Chairperson of the Banking Advisory Committee

Norbert Walter,

born in 1944, studied at the Johann Wolfgang Goethe University in Frankfurt am Main, where he earned his Ph.D. He worked at the Institut für Kapitalmarktforschung between 1968 and 1971. In 1971 he moved to the Kiel Institute of World Economics as assistant to Professor Giersch, president of the institute. He also headed various research groups, in 1975 Mr. Walter became head of the "Konjunktur und Weltwirtschaft" Department and later of

the “Ressourcenökonomik.” In 1978 he was appointed Professor and Director of the Kiel institute. He was John J. McCloy, Distinguished Research Fellow, resident scholar at Johns Hopkins University in Washington D.C. in 1986/87.

In 1987 he joined Deutsche Bank as a senior economist and since 1990 he has been Chief Economist of Deutsche Bank Group. In 1992 he was appointed Managing Director of the newly founded Deutsche Bank Research, Deutsche Bank’s economic think tank. He has been a member of the Committee of Wise Men on the regulation of European Securities Markets since July 2000.

Gert Wehinger,

born in 1963 in Bregenz in Austria, works as an economist in the Money and Finance Division of the Economics Department of the OECD since 1999. His major fields of research include financial markets and monetary policy, financial systems and growth, financial sector consolidation, and public debt management. Since April 2000 he is lecturer and thesis advisor in economics at the American Graduate School of International Relations and Diplomacy in Paris. He obtained his Master’s degree in economics at the Karl-Franzens-University of Graz in 1988. In 1990 he concluded his postgraduate studies in economics at the Institute for Advanced Studies in Vienna. He received the doctoral degree with excellence at Vienna University of Economics and Business Administration in 1995.

From 1990 to 1995 he was university assistant at Vienna University of Economics and Business Administration, where he did teaching, thesis supervision and research in the fields of international economics and macroeconomics, stabilisation, and economic development. After work-

ing as a lecturer in economics at Vienna University of Economics and Business Administration and at the Polytechnical College for Business Consulting in Wiener Neustadt, Austria, from 1990 to 1999, he was economist in the Economic Studies Division of the Oesterreichische Nationalbank in Vienna, where he worked on macroeconomic issues of the European Monetary Union and electronic money. He presented various conference papers and publications in the fields and assumed the function of a deputy representative of the OeNB in the EMI Task Force on Electronic Money.

His research visits and courses include the University of Rome, Fundação Getúlio Vargas in Rio de Janeiro, the University of Bonn/ZEI, and the SNB Study Centre Gernensee in Switzerland. He is a Member of the European Economic Association, the Austrian Economic Association, the Western Economic Association, the AIESEC Austria Alumni, and the Austrian Latin American Institute. He is also journal referee for *Empirica*, *Empirical Economics*, *Journal of Macroeconomics*, and *Zagreb International Review of Economics and Business*. He wrote various publications, including papers and articles, on financial markets and growth, European Monetary Union issues, analyses of inflation, cash innovations, and a book on high and chronic inflation and stabilisation published in 1996.


Ernst Welteke,

has been President of the Deutsche Bundesbank and a member of the Governing Council of the European Central Bank since September 1999. He was born in Korbach, a small town in the central German state of Hesse, in 1942. He left school in 1959 to learn a practical trade, qualifying as an agricultural

mechanic in 1962, before resuming his academic education at a pre-university college in Wiesbaden. Between 1965 and 1971 he studied economics at the universities of Marburg and Frankfurt am Main, graduating with a degree in economics in 1971.

He began his professional career in 1972 when he joined the Office of the Prime Minister of Hesse. In 1974 he was elected to the Hesse State Parliament and remained a member until 1995. He was chairman of the parliamentary group of the Social Democratic Party (SDP) in the Hesse State Parliament from 1984 to 1987 and from 1988 to 1991. From 1991 to 1994 he was the Minister of Economics, Transport and Technology in the State of

Hesse – which has a population of over six million and includes the important city of Frankfurt am Main – before serving as Hesse's Minister of Finance between 1994 and 1995. During these years, Hans Eichel, the current Minister of Finance of the Federal Republic of Germany, was Prime Minister of Hesse. In 1995 Mr. Welteke was appointed President of the Land Central Bank in Hesse and a member of the Central Bank Council of the Deutsche Bundesbank.

Ernst Welteke is an active member of numerous political, social, and cultural organizations. Among many other interests and functions, he is Chairman of the Friends of the Hebrew University of Jerusalem in Germany. 

Medieninhaber:

Oesterreichische Nationalbank

Für den Inhalt verantwortlich:

Wolfdietrich Grau, Sekretariat des Direktoriums/Öffentlichkeitsarbeit

Redaktion:

Alexander Dallinger,

Abteilung für volkswirtschaftliche Analysen

Grafische Gestaltung:

Peter Buchegger, Sekretariat des Direktoriums/Öffentlichkeitsarbeit

Hannes Jelinek, Hausdruckerei

Fotografien:

Foto Knoll

Satz, Druck und Herstellung:

Hausdruckerei

Rückfragen:

Oesterreichische Nationalbank

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DVR 0031577

Wien 2001