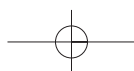


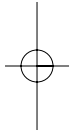
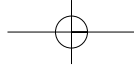
“VISIONS ABOUT THE FUTURE OF BANKING”

by
Hans J. Blommestein



SUERF – The European Money and Finance Forum
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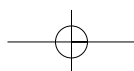
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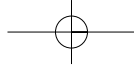
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JEL Classification Numbers: G2, G21, G22, G34, L2, O14

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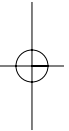
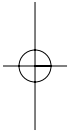


VISIONS ABOUT THE FUTURE OF BANKING

Prof dr. Hans J. Blommestein¹

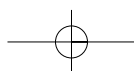
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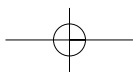
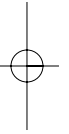
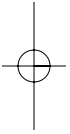
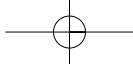
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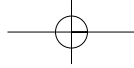


To the memory of my father Henk Blommestein

¹ This article is based on my inaugural lecture – The Future of Banking – as PricewaterhouseCoopers Professor of Finance at Tilburg University, The Netherlands, on 25 November 2005. I am indebted to my colleague Prof. dr. Sylvester Eijffinger and the referees for helpful suggestions on a previous draft.







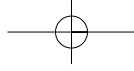
0. Executive Summary

I will address in this study the future of banking. This will be done against the backdrop of revolutionary forces shaping an increasingly fast-moving banking landscape. The first part of the study focuses on the ultra-long drivers of banking structures and institutions. To that end, I will identify the long-term determinants of our rapidly changing society. The second part will outline the implications of this long-term vision for the strategic direction and business models of banks in the near future.

For the first time in history, a global techno-market order is transforming the world of finance, business, and society more broadly, raising urgent questions about the future of banking. A fast-forward modernising post-utopian society, driven by new technology waves and changing human values and preferences, is shaping an increasingly fast-moving banking landscape. Also the nature of financial products is changing, with the demand for products and services that address in *integrated* ways the life-cycle planning and risk control needs of households and enterprises, increasing rapidly. Bankers of the future will operate increasingly as *life-cycle engineers*, whereby the larger part of their income is expected to come from offering an integrated approach to advice and asset-and liability management.

The architecture (institutional structure) of banks is changing rapidly in response to a transformation of the underlying structure of technologies (and associated impact on transaction and economic capital costs). Technology is also key for risk management and producing new products and services that address in effective ways the aforementioned life-cycle planning and risk control needs of household and firms. This new banking architecture is to be guided by a revised business model that welds together information and transaction capabilities so as to create exceptional value.

Change and adaptation is taking place within each type of banking system (relationship-based and arm's-length). The study argues that a new hybrid type of banking system is emerging, called a *relationship-cum-market-based banking system*, in which financial engineering and the integration of products and services from outside suppliers play a greater role than before. It is concluded that both the financial supermarket model and the traditional bancassurance model need to be revised.



Although the search for greater focus and specialisation has resulted in unbundling (de-mergers) of activities, there is still an important place for merger and acquisition activity in shaping the banking architecture of the future, with an increasing emphasis on cross-border M&As. Cost scale economies and risk diversification are important drivers of M&As.

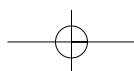
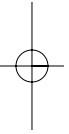
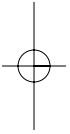


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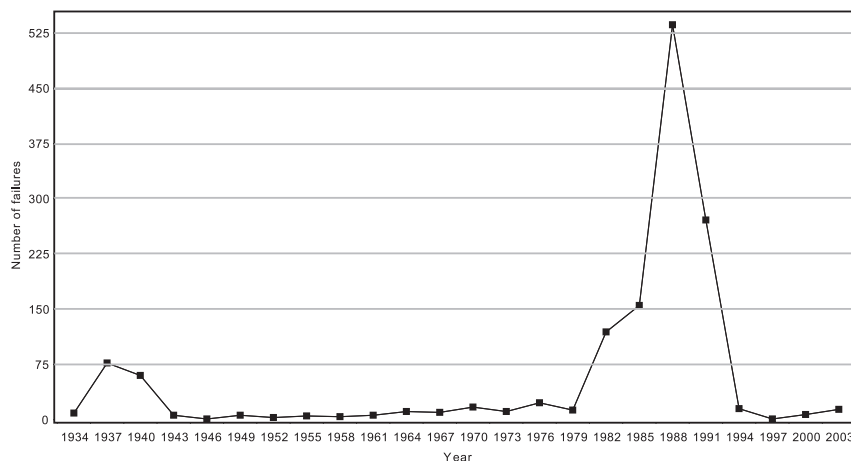
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1. Bankers on a roller coaster ride

1.1. In the 1980s the banking industry started a roller coaster ride

From World War II through the 1970s, banking was a relatively stable business² with relatively few bank failures³. But after that period, the banking industry has been on a roller coaster ride with deregulation and liberalisation as key drivers of stronger competition, punctuated by a strong rise in the number of failures through the 1980s and 1990s⁴. **Chart 1** illustrates the US experience 1934 – to 2003.

Chart 1: Number of US commercial bank and savings institutions failures (1934–2003)



Over the past quarter-century a dramatic consolidation has taken place among banks. For example, in the US there are about 7,600 commercial banks today, down from approximately 13,000 in 1980⁵. The past decades also saw

² It is not suggested here that in the 1950s and 1960s no important changes in banking strategies and business took place. For example, Walter Wriston, the former chairman of Citicorp, is widely credited with introducing in the 1960s the negotiable certificate of deposit, the holding company structure, and the for that time revolutionary idea that banks should focus on earning a return on equity – see Reed (2005). However, in comparison to the 1950s and the 1960s the pace of change in banking has accelerated tremendously during the last two decades.

³ For example, in that post-war period no more than 10 US bank failures occurred in any year, (Wheelock (1993).

⁴ Basel Committee on Banking Supervision (2004), Blommestein and Lange (1993) Blommestein, (1997). These studies provide an overview and diagnosis of banking failures or banking crises in the US, Japan, Europe and elsewhere.

⁵ Olson (2005).

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a dramatic increase in the number and use of financial innovations, the beginning of the march of the information and communication technology (ICT) revolution, and the emergence of global finance.

This rapidly changing banking landscape prompted great interest in better understanding the drivers, economics and dynamics of traditional banking. For example, in the beginning 1990s, many banking industry seminars (see **Table 1a**) had as titles: “Is banking in decline?” or “Banking markets in transition”. A few years later, reflecting a banking sector under great stress, topics at leading banking industry conferences shifted to the diagnosis of banking crises in the US, Europe, Japan and elsewhere, and, later, to the merits of alternative regulatory structures as well as to optimal means to re-price the bank industry’s safety net. Especially the *Annual Conference on Bank Structure and Competition*, organised by Federal Reserve Bank of Chicago, has become an important internal banking forum for discussing global trends in banking.

TABLE 1a: Topics of leading banking seminars

Period	Topic	Speaker/Organiser
Chicago, 1989	Banking System Risk – Charting a New Course	25th Annual Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago
Chicago, 1992	Credit Markets in Transition	28th Annual Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago
Washington D.C., 1994	International Banking, Payments Systems, and Financial Crises	Governor of the Bank of England (International Symposium on Banking and Payment Services)
Chicago, 1994	The (Declining?) Role of Banking	30th Annual Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago
Chicago, 1995	The New Tools Set: Assessing Innovations in Banking	31st Annual Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago
Paris, 1992 and Vienna, 1996	Transformation of the Banking Sector in Formerly Planned Economies	OECD & Vienna Institute for Comparative Economic Studies

Source: Author

1.2. Revolutionary forces shaping a rapidly evolving banking landscape

But after “*Is banking in decline?*”, “*Understanding banking crises*” and “*Rebalancing regulatory and market discipline*”, the focus of bank seminars shifted to a more positive, forward-looking perspective (**Table 1b**). Accordingly, an OECD experts’ meeting in the mid-1990s focused on the revolutionary forces shaping a rapidly evolving banking landscape, including the prospects of traditional banking (or on-balance sheet intermediation)⁶.

The focus of these forward looking banking industry meetings changed fairly frequently, reflecting the accelerated pace of creative destruction. Hence, conferences emphasised the changing nature of the financial services industry and the related increase of non-banking competition; for example, broader and deeper financial markets have provided even moderate-sized companies with easier access to capital markets. Credit scoring and loan securitisation have provided households with broader access to mortgage finance and consumer credit⁷.

TABLE 1b: Topics of leading banking seminars

Paris, 1994 and 1997	The New Financial Landscape (bank, capital markets, risk management, institutional investors)	OECD
Chicago, 1998	Payments Systems in the Global Economy: Risks and Opportunities.	34th Annual Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago
Boca Raton, Florida, 1998	The structure of the international financial system	Governor of the FED (Annual Meeting of the Securities Industry Association)
Santiago de Chile, 1999	Globalisation and Financial Crises in Emerging Markets	ECLAC & International Jacques Maritain Institute
Chicago, 1999	Global Financial Crises: Implications for Banking and Regulation	35th Annual Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago

⁶ Blommestein and Biloft, eds., (1995)

⁷ Moskow (2005a).

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Berlin, 2001	E-banking	President of the European Central Bank (German Banking Congress)
Chicago, 2001	Financial safety net: costs, benefits, & implications for regulation	37th Annual Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago
Washington D.C., 2002	The future of financial conglomerates	5th Annual Conference of the Brookings-Wharton Papers on Financial Services
Chicago, May 2004	How Do Banks Compete? Strategy, Regulation, Technology	The 40th Annual Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago
Madrid, October 2004	Competition and profitability in European Financial Services Strategic and Policy Issues	25th SUERF Colloquium
Chicago, May 2005	The Art of the Loan in the 21st Century	The 41st Annual Conference on Bank Structure & Competition, Federal Reserve Bank of Chicago
Tokyo, July 2005	Increased Global Emphasis on Retail Financial Services	Governor of the Bank of Japan (Forum on Retail Financial Services)

Source: Author

1.3. Urgent questions about the future of banks

However, at the same time, the high pace of introducing innovations⁸, the increasing complexity of risks⁹, rapid changes in financial infrastructure such

⁸ Innovations in financial-contracting technology (futures, options, swaps and other contractual agreements) together with the widespread availability of ICT (information and communication technologies) have played (and continue to play) a revolutionary role in financial markets by expanding the opportunities for sharing and transferring risk, more precise measurement of risk, lowering transaction costs, and reducing information and agency costs. Innovative financial engineering has supported and enabled a broad unbundling of risks by facilitating both their measurement and management. See Merton (1998).

⁹ The extraordinary growth in the use of derivatives and the huge proliferation of new financial products and markets, have made possible the creation of an increasing number of layers of financial intermediation that are required to capture the benefits of advances in finance. At the same time, this process has created a fast moving financial landscape with much more complex risks. See Blommestein (2005a). A recent example is the market for CDOs where the high pace of product development requires the rapid adaptation of pricing machines and investment strategies. →

as electronic networks, the growing role of institutional investors, and stronger and more complex links between banks and capital markets¹⁰, led to growing uncertainties about the long-term profitability of many of the prevailing banking models and underlying strategies. For example, banks' traditional informational advantages continue to be eroded. There are therefore many urgent questions about the future of this core function of banks – making credit available to households and businesses, including the share of pure relationship lending in banks' strategies¹¹. Another example of uncertainty surrounding the design of strategies for the future concerns the role of e-banking. Just a few years ago, bank strategies focused on the seemingly relentless march of the e-banking revolution. Bricks and mortar were going to be replaced by clicks of the mouse in cyberspace. The title of a speech by a senior central banker "*E-economy: will we still need banks in the future?*" was typical of that "new economy" period¹². Many analysts argued that existing banking strategies had become obsolete. The development of Internet banking would erode the traditional franchise of banks, while conventional synergies between deposit taking, payment services and lending would change or even diminish. However, the crash in technology stocks in 2000 prompted a reality check that would change many of these new visions of banking in the 21st Century. For example, just a few years ago after bank visionaries predicted the demise of branch banking, many banks are now competing for the best location for new branches. The real issue at stake is *not* the importance of on-line, Internet-based business as such; the importance of on-line banking is likely to increase further. Instead, the more important strategic issue for bankers is to determine core capabilities and key customer markets. And it is this fundamental inquiry that is modifying many of the earlier (perhaps somewhat simplistic) assessments about the place of electronic finance in banking strategies for the future. As will be shown in **sections 4 and 5**, the ongoing ICT revolution will play (and indeed is playing) a key role in shaping the architecture of banks.

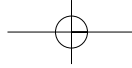
Meanwhile, the pace of financial innovations and creative destruction in the financial sector continued to accelerate. For example, a recent survey on innovative ways to repackage debt and spread risk noted that product

As a result, the risks in this fast-growing, opaque market segment have become more complex. And, "[a]s the innovation becomes wilder, it also makes more pressing the question: do investors really understand what they are buying?" See Tett (2005a).

¹⁰ Blommestein (2005b).

¹¹ Moskow (2005a)

¹² See Duisenberg (2001).

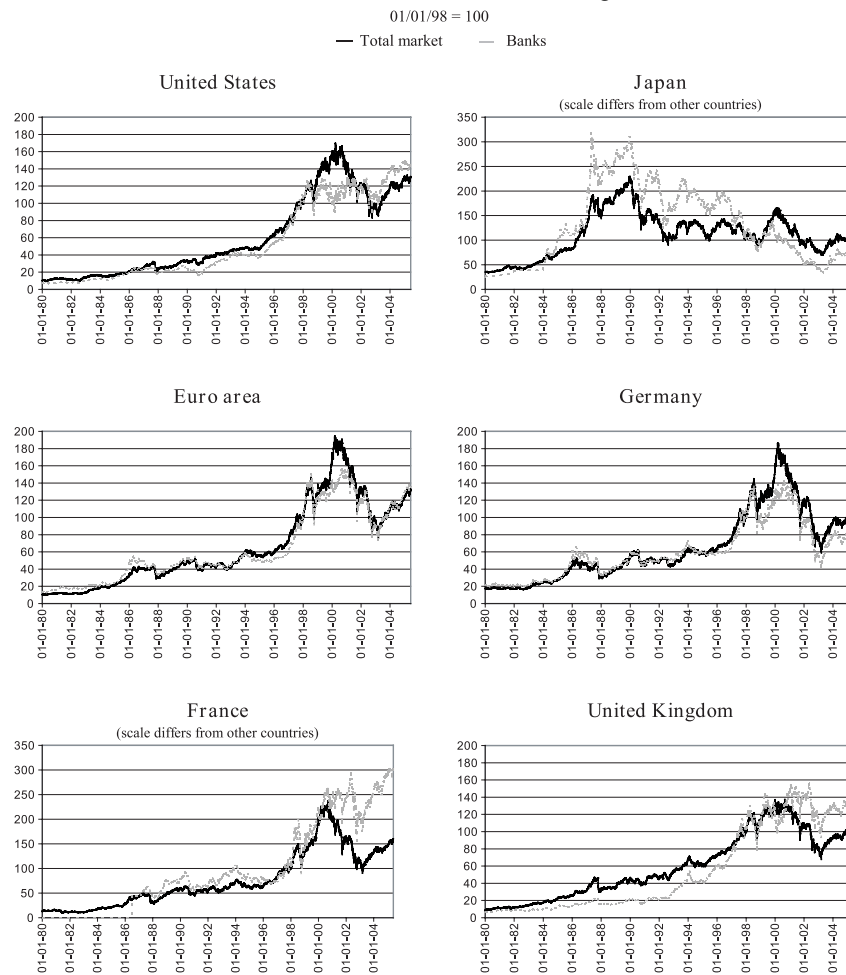


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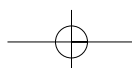
development in the CDO market is now incredibly fast¹³. Technology and consolidation are playing an important role in cutting operating costs, to a large extent by realising scale efficiencies through the process of combining back offices and branch networks.

This rollercoaster picture of banking is not only mirrored in the topics discussed at leading, international conferences (**Tables 1a, b**) but also in the price of bank stocks over time in the principal banking jurisdictions.

Chart 2: Stock markets: Total market and banking sector indices

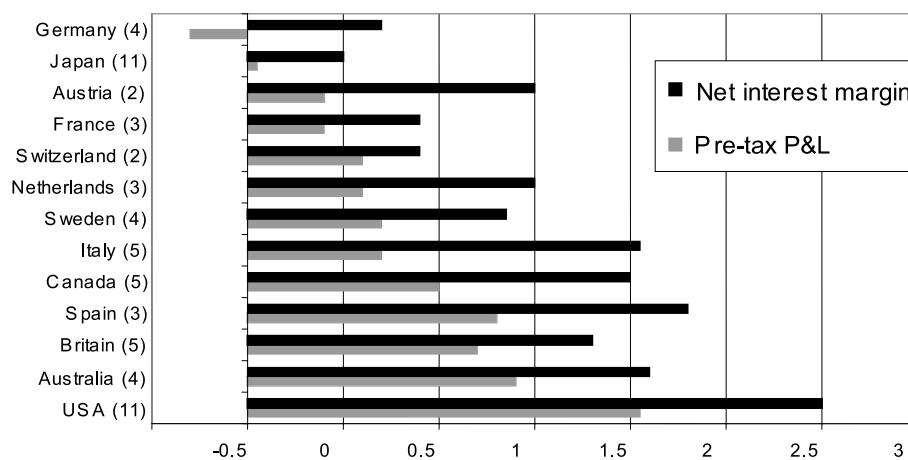


¹³ See Tett (2005).



During the last few years, the profitability of many banks has increased, with some major banking jurisdictions (US, France and the UK) outperforming the overall market index (**Chart 2**). But even from this profitability perspective, volatility remains a feature of the banking landscape with a varied pattern of winners and losers in the different jurisdictions (**Chart 3**).

Chart 3: Winners and Losers: Profitability of major banks
(2003 pre-tax P&L as % of total average assets)

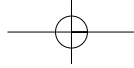


Source: Fitch. Figures in brackets indicate number of banks

1.4. All the answers are different!

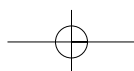
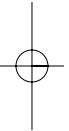
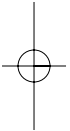
Today, against the backdrop of this fast moving banking landscape, bankers seem to have very different visions about the longer-term direction of banking in general and long-term profitability more in particular. There seems even to be a confusion about what *is* a bank¹⁴. This situation is somewhat reminiscent of an anecdote about Albert Einstein's course on postgrad physics at Princeton University. The nature of Einstein's questions on the year-end exam was so cerebral that they would be passed around the campus after each test. One year after exam papers had been handed out, one of the students in the class raised his hand and said, "Professor Einstein, I think there's a mistake. You've handed out last year's exam questions." Einstein paused and said, "That's okay. All the answers are different."

¹⁴ Pastre, Blommestein, Jeffers and de Pontbriand, (2005), eds.



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In this lecture I intend to give new answers to sometimes old, though time-tested, questions. I will also raise new questions based on my analysis of the spectacular long-term forces shaping our rapidly changing society. In doing so, I will first study the major implications for the structure and institutions of banking in the long-term. Next, against the backdrop of this longer-term vision, I will focus on the strategic direction of banking in the near future.



2. Banking in a fast-forward modernising post-utopian society

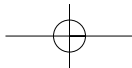
Our societies are changing at an unprecedented pace, driven by accelerating technical advances. I will show in this section (1) how these revolutionary changes are responsible for the emergence of a new, post-utopian society, and (2) why this evolving new society has important implications for the future of banking.

Just a decade ago, people spoke of the end of history, meaning the ultimate triumph of a liberal capitalist political order. Nowadays, many scoff at that notion as too simplistic. Nonetheless, we are at both the end and beginning of something remarkable. The pace of technological and economic changes is accelerating and the boundaries of our existence are being shifted more rapidly than in the past. This has led to a revolutionary transformation in our thinking and outlook on social and political reform and the underlying utopian ideologies. What we are witnessing is the death of traditional, mainly utopian, ideologies. The new techno-market order is pushing our societies beyond communism, socialism and traditional notions about the welfare state. Even our traditional perspective on capitalism (a doctrine fundamentally different from utopian ideologies) has become obsolete. In the wake of the death of the utopian certainties of the 19th and 20th centuries (Communism's collapse was but the latest spectacular example), and with fading belief in the liberal welfare state, traditional views about work, retirement, education, the Church, solidarity, and other social institutions are changing rapidly.

The central driver is today's enormous acceleration in the underlying pace of technological-, economic-, social- and political changes. In earlier work¹⁵ I have called this phenomenon *fast-forward modernisation*. The end of the belief in all sorts of utopias (and policies based on them) opens the way for a revolutionary new society based on post-utopian values.

Of course, the worldwide crash of high-tech stocks in 2000 chilled the hype about a "new economy" that seemed to be emerging at the "end of history." But falling share prices should not blind us to the fact that on top of the

¹⁵ Blommestein (2004a).



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ongoing information revolution, three fresh waves of revolutionary technology are poised to hit: bio-technology (including new medical technologies and genetic engineering, such as the creation of human embryos through cloning), nanotechnology, and robotics. Each is its own industrial revolution, and will profoundly alter our lives and ways of thinking.

2.1. A global techno-market order is transforming our society

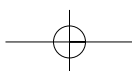
Indeed, the revolution is already upon us. For the first time in history, a global techno-market order is transforming the world of finance, business, politics and, indeed, physiology, beyond recognition. This new techno-market system is shaped and characterised by a belief in the increasing importance of knowledge, new ideas, innovations and new technologies, and a higher pace of what the economist Joseph Schumpeter famously called “creative destruction”.

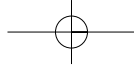
As a result, traditional corporate capitalism is rapidly becoming obsolete, being replaced by creative capitalism in which new forms of entrepreneurship, combined with a greater willingness and capacity to adopt innovations, are transforming the business landscape. Innovative start-up firms are turning into huge companies faster than ever before. The spectacular rise of Microsoft is an example. As a result, the pace of creative destruction has increased dramatically. But these infant giants are quickly threatened with eclipse by even newer enterprises. A very recent example is the striking growth of Google. As a result of this structural change, the pace of creative destruction has increased¹⁶.

This techno-market system provides unprecedented financial incentives to scientists and entrepreneurs to aggressively develop new technologies and thus become wealthy. But the revolution is not only for the elite; it also offers a realistic (non-utopian) promise of dramatically improved lives for many people around the entire globe – not in 100 years, but in the foreseeable future.

We are not just witnessing a simple adaptation of social structures such as banking and ways of living to suit new technologies. The Nobel laureate Robert Fogel argues that a new synergism between technological and

¹⁶ Take the example of computers. It took 15 years for other countries to compete successfully with America’s Silicon Valley in semi-conductors, but less than five years in Internet technology.





physiological improvements has produced a radically new form of human evolution, which he calls *technophysio evolution*. Only this, Fogel believes, can explain recent trends in longevity¹⁷, body size, the durability of vital organs, and chronic diseases. Clearly, technophysio evolution has a major impact on people's behaviour but also on the functioning of life-cycle institutions such as pension schemes, education, health care and corporations.

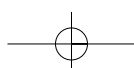
2.2. The emergence of post-utopian values and their impact on financial markets and institutions

These revolutionary changes are also triggering changes in human consciousness. The result is a litany of "post-utopian" values that include a stronger emphasis on individual freedom and personal responsibility. The post-utopian society attaches great importance to new ideas & knowledge, creativity & entrepreneurship, and therefore a greater willingness than before to adopt innovations & new technologies. Post-utopian values touch all dimensions of our life, including political activism based on life-style considerations instead of traditional ideologies and religions; a preference for frequent job and career changes; more flexible retirement arrangements; weaker civic engagements; and a search for a new morality¹⁸ & new expressions of religion. A key manifestation of this shift to post-utopian values is the growing trend of individualism, and the related need to take more responsibility for key life-cycle decisions (education, work, savings, health insurance, retirement, and so on).

This shift to the post-utopian society and associated values will accelerate over time. Increasingly, therefore, markets and institutions (including banks) will be transformed by the drivers of this shift. For example, emerging technologies such as omnipresent computing, human-to-machine communications, sensor networks, automated screening and semantic networks (and their impact on transaction costs) are pushing banks and other companies to move transactions that were previously internal to the firm to the outside. Increasingly, banks outsource and offshore activities. Moreover, and quite crucially for determining the future banking landscape in the longer

¹⁷ Increased longevity is of course seen as a positive accomplishment of the human race but at the same time we are faced with an increase in longevity risk that creates important challenges for company pension plans, insurance companies, and governments – see Blommestein (2005c).

¹⁸ The responses to the recent scandals surrounding 'doing business the dot-com way' and ENRON's 'kill and eat culture' are important recent examples of (the need of) this search for new ethical standards in the fast-moving new techno-market order. See Blommestein (2004b).



20 Banking in a fast-forward modernising post-utopian society

term, markets and companies will increasingly reflect post-utopian values and related preferences, while, vice versa, they co-determine how these values will manifest themselves. **Table 2** summarises the key features of this technology- and value-driven revolutionary transformation.

TABLE 2: Adaptation by markets and banks to the post-utopian techno-market order

UTOPIAN SOCIETY	➔	POST-UTOPIAN SOCIETY
Markets & Economy		
Traditional Capitalism	➔	Creative Capitalism
National Markets	➔	Global and Regional Markets
Labour- or Capital-Intensive Economies (Industrial or Rural Economy)		Technology- and Human Capital- Intensive Economies (Knowledge Economy)
Slow Pace of Modernisation and Development of Poor Countries Based on Utopian Engineering		Fast-Forward Modernisation and Development of Poor Countries Based on Post-Utopian Programmes
Intellectual Property is not an Important Source of Value		Intellectual Property is a Key Source of Value
Ideas and Information Goods play a Subordinate Role		Ideas and Information Goods play a Dominant Role
Economies Dominated by the Firm (Coasean Economy)		Economies Dominated by the Market (Marshall Economy)
Network Effects Are Relatively Weak in Business Sectors		Network Effects Dominate Business Sectors and the Economy as a Whole
UTOPIAN SOCIETY	➔	POST-UTOPIAN SOCIETY
Banking Markets & Products		
National Financial Markets	➔	Global Finance
ICT play a Small Role in Banking Strategies and Architecture		ICT play a Central Role in Banking Strategies and Architecture
Banks Operate as Rigid Pyramids with Middle Managers as Intermediaries for Information Up and for Decisions Down		Banks Operate as Networks to Co-ordinate & Integrate Business Elements Offered Externally by the Market
Banks and their Clients are Facing Fairly Simple Risks in a Slowly Moving Financial Landscape		Banks and their Clients are Facing Increasingly Complex Risks in an a Fast Moving Financial Landscape
Banks Use Very Rudimentary Risk Management Technologies & Products		Banks Use Sophisticated Risk Management Technologies & Products
ICT Plays a Subordinate Role in the Production and Distribution of Services		ICT Plays a Dominant Role in the Production and Distribution of Services
Pace of Financial Innovations and Creative Destruction is Slow		Pace of Financial Innovations and Creative Destruction is High
Segmented Banking Sector with Supply of Highly Standardised, Relatively Simple Products		Integrated Banking Sector with Supply of Complex Customised Life-Cycle Products
Prudential Regulations Based on Simple Financial Ratios Defined by Supervisors (Top-Down Approach)		Prudential Regulations Based on Best Practices of the Most Sophisticated Banks (Bottom-Up Approach)
Bankers Follow an Ethically Neutral Approach to Business		Bankers Are Adopting Ethically Non-Neutral Principles

Source: Hans J. Blommestein, *The Emerging Post-Utopian Society*, forthcoming.

3. Bankers as life-cycle engineers

3.1. Increasing complexity of life-cycle planning needs

This emerging post-utopian society creates new challenges and opportunities for bankers that need to be incorporated in the design of strategies for the future. For example, the growing trend of individualism has increased the demand for customised products. Households are taking on (or are forced to take on) more financial responsibility for key life-cycle decisions such as pension plans, education, and health insurance. But, unfortunately, many households, companies and other investors are poorly equipped to assess properly their risk profiles and to use available, increasingly sophisticated, risk management tools. An important obstacle is the increasing complexity associated with products and markets in the new financial landscape¹⁹. There have been numerous instances of households buying the “wrong” longer-term savings products for retirement, education and healthcare purposes, while companies (including insurance companies and pension funds) made costly mistakes in acquiring complex financial instruments for managing their risk profiles and boosting investment income.

In the future, the risk transfer to households is expected to continue, while also companies will need to operate in a fast moving decision environment that is likely to get more complex.

3.2. An increased demand for more sophisticated but simpler to understand financial products to control life-cycle risks

In response, the demand for products and services that address in effective ways their life-cycle planning and risk control needs, is increasing rapidly. On top of this, and this point is crucial for projecting future trends, all categories of users (households, companies, governments, and professional investors) are requiring that these sophisticated life-cycle financial tools are both simple to understand and to employ.

¹⁹ Blommestein (2005f).

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The call for more sophisticated but simple to use products would be met, if financial firms would start to produce on a large scale so-called *integrated life-cycle* financial instruments. This is, however, not yet the case. Although some available products are currently being marketed as so-called “life-cycle products”, they are too simple because they are *not* able to address life-cycle planning objectives and risk control needs in an integrated fashion. These instruments are at best capable of addressing a single life-cycle objective in isolation from other life-cycle planning objectives, while most users have difficulties assessing the impact on their risk profiles.

In contrast, the life-cycle financial products we have in mind are far more complex in structure than the services and products sold currently in the market, while, at the same time, they are more user-friendly as they allow a relatively simple to understand assessment of planning and risk control needs. A distinctive feature of this innovative type of integrated products is that they are based on an assessment of (expected) life style needs and desired risk profile of individuals and businesses over their respective life cycles²⁰.

It seems therefore likely that bankers of the future will operate as *life-cycle engineers*. They will generate the larger part of their income from offering an integrated approach to advice and asset- and liability management based on the implementation of the life-cycle financial planning decisions of individuals, enterprises and government agencies²¹.

3.3. The challenge to deal with society's largest life-cycle risks

Although these life-cycle products are conceptually within reach, there is still a long way to go. Consider, for example, society's *largest* economic risks – such as the risk associated with occupation, demography, and geography. In this context, Robert Shiller has noted that existing risk control arrangements are unable to protect the larger part of peoples' wealth. He estimates that

²⁰ These innovative customised financial instruments need to be engineered so as to permit the optimal allocation of savings and risks over the expected life cycle of individuals and the business horizon of enterprises. Merton (1999) has outlined this approach in his “Finance Theory and the Shift to Integration”. In this article he describes a future trend with more integrated, tailored financial instruments that permit more effective risk selection and control.

²¹ A new Wall Street banking firm – Integrated Finance Ltd (IFL) – seems to go in this direction by offering an integrated approach to advice and asset-management that is client-focused and not product driven. IFL founders claim that they follow a “holistic” approach based on sophisticated, though market proven, financial theories. (Tett (2005b)).

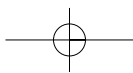
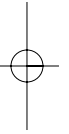
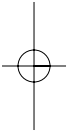
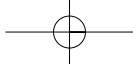
around 90% of an average person's income is sensitive to sectoral-, occupational-, and geographic uncertainty²², while these types of risks *cannot* be managed effectively with existing financial products and markets.

In sum, a major expansion of innovative institutional arrangements and products is needed for addressing in an effective fashion the life-cycle planning and risk management needs of individuals and companies. This expansion would need to go hand-in-hand with the development of underlying markets for the transfer and re-allocation of the whole range of life-cycle- and other major risks faced by individuals and companies²³. These developments would give a strong push to the ongoing process of securitisation, leading to a further steady increase in securities-related activities in finance, insurance, risk management, the pension industry, education, health, etc.

The rapid development of securities-related activity is therefore likely to continue in the 21st Century, in large part due to the continued strong demand of investors, households and enterprises for an expanded range of life-cycle products with highly differentiated (customised) risk-return characteristics. The shift to customised life-cycle products would also contribute to the ongoing blurring of the distinction between wholesale and retail financial markets, while also the links between banks and capital markets would further strengthen.

²² Shiller (1993).

²³ Merton (2003) has noted in this context that households and individuals need integrated financial products to implement life-cycle plans. This in turn requires that banks that supply these products need to consider a wider set of asset classes and risk than is now the case. "To the traditional analysis of risk-return trade-offs for tangible wealth ... we need to add explicit analyses of human capital, hedging of reinvestment rates, mortality and traditional insurance risk, and income and estate taxes." [Merton (2003, p. 22)].



4. New banking architectures and business models

The architecture of banks is changing rapidly. Banks operate increasingly as networks to co-ordinate and integrate business elements (services and products) offered externally by the market (**Table 2**). Many banks have taken the strategic decision to outsource and offshore production and distribution activities. Some banks also (plan to) outsource such services as company research, marketing and even product design. Banks are facing a new challenge by having to become profitable co-ordinators and integrators. They need to integrate the products and services offered at very low prices by a myriad of highly specialised suppliers.

However, there are three critical assets that cannot be outsourced (not even partially):

- Client relationships;
- A brand name; and
- Reputation.

The latter two assets underpin existing relations (with clients, rating agencies, share-holders, bond-holders, and other market participants), while they also act as a source of long-term relations with new customers.

4.1. Technology as key driver of changes in architecture and revisions of business models

The key driver of structural change is technology, leading to lower costs for the creation, processing, and co-ordination of information²⁴ as well a greater availability of sophisticated risk management tools (see below). Consequently, the architecture (institutional structure) of companies will change when there is a transformation of the underlying structure of technologies (and associated impact on transaction and economic capital costs)²⁵. Since technology is changing more rapidly than in the past, also the pace of institutional change (architectural transformation) in banking and

²⁴ Blommestein (2006b – forthcoming).

²⁵ Noam (2005).

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other sectors has accelerated. In the light of these institutional changes, the structures of business models need to be reviewed and, when needed, revised.

More specifically, the business models of banks will need to incorporate a higher degree of adaptability, both in response to less loyal, more demanding and financially sophisticated users²⁶ as well as fiercer competition from non-banks that are entering mainstream banking markets. Technology is a two-edged sword in this context. On the one hand, technology allows non-banks (such as insurance companies and finance firms) to penetrate more easily mainstream banking markets²⁷. On the other hand, technology is crucial to both banks' ability to adapt their architecture and associated business model as well as to implement the underlying strategy. Technological advances permit banks to respond to a more competitive environment by making better credit decisions (also concerning categories of clients whose risk profiles were until recently difficult to assess), by using modern risk management systems, and in creating and using new instruments²⁸. Only technology enables banks to move away from traditional models (based on selling their own mainstream banking products) towards a broker-like approach, whereby banks co-ordinate and integrate a range of products and services from outside suppliers provided at low(er) cost²⁹.

4.2. The challenge of designing and implementing competency-based business models

In this way, bankers can avoid getting stuck in a “commoditised hell”³⁰ with low margins. In the emerging new financial landscape, manufacturing and distribution activities are becoming standardised, while a high degree of flexibility, very high cost efficiency, and superior quality are taken for granted³¹. The key challenge for bankers is how to mobilise in an efficient fashion new technologies in order to develop and sell tailored, high-margin

²⁶ See for details section 3, “Bankers as life-cycle engineers”.

²⁷ For example, non-bank competitors can offer higher rates on quasi-bank deposits or cheaper loans than banks by using the latest online technologies. See Economist Intelligence Unit, (2005).

²⁸ Greenspan (2004).

²⁹ For example, some German bankers are working on cutting the processing costs for smaller credits by creating a Kreditfabrik (loan factory) for processing standardised smaller loans cheaply on behalf of participating banks. Banks will continue to deal with customers, while the Kreditfabrik would execute back-office work (The Economist (2005b)).

³⁰ Skypala (2005).

³¹ O’Leary (2000).

services and products in a highly competitive environment. And it is indeed technology that is the key to both increased productivity and higher profitability in banking³². Bankers need therefore to become both competitive life-cycle engineers as well as “masters of the information and knowledge universe”. To that end, they are required to possess the capacity to select the best suppliers, to interact on a real-time basis with capital markets, to stay abreast about technological developments, and to have efficient access to information about borrowers from third-party databases.

These reformulated functions of being a banker in the future³³ will require new business architectures. This new architecture is to be guided by a revised business model that welds together information and transaction capabilities so as to create exceptional value. This competency-based (as opposed to industry and product-driven) business model for successful banking in the future has the following 10 key features (**Table 3**).

Table 3: Ten principal features of competency-based business models in banking

1. High flexibility for adapting rapidly to new technologies and other new circumstances in a fast moving environment.
2. Superior ability to implement and exploit fully new technologies (in particular ICT).
3. Life-cycle approach driven by the needs of wholesale and retail clients.
4. Focus on tailored services and life-cycle products with high-value margins, with a strong emphasis on relationship banking with capital market scope.
5. Network architecture for the co-ordination and integration of externally supplied products and services.
6. The use of group-wide risk management procedures.
7. Integrated financial management, including the integrated use of economic capital models across all business lines (portfolio approach) for maximising organic earnings-growth.
8. A strict performance management process whereby non-profitable activities are killed off as soon as possible and capital rapidly redeployed.
9. The use of a sophisticated performance measurement system that is able to determine how much risk-adjusted money each activity is making for shareholders.
10. Adherence to sensible corporate governance systems supported by high ethical standards to enhance brand name and reputation.

Source: Hans J. Blommestein (2006a), the Emerging Post-Utopian Society, forthcoming.

³² Greenspan (2004) has noted that “[t]he increase in banks’ fee income is not unrelated to improvements in technology.”

³³ This analytical framework is a variant on the institutions follow functions model proposed by Merton and Bodie (1995). The basic idea of this functional framework is that functions are more stable over time than institutions, while they also are (more) constant across borders and jurisdictions. In this view, institutional structure and organisational forms are an endogenous response to minimise transaction costs (Merton and Bodie (2005)).

4.3. The impact of the ongoing risk management revolution on banking³⁴

Business model characteristics 4, 6, 7, 8 and 9 are directly related to the ongoing risk management revolution. As a result of this revolution, the business of banking is being transformed beyond recognition. As noted, risk management is a key driver of the evolving architecture, strategy and business models of banks. Banks have started to use more formal and rigorous risk-management techniques and procedures, allowing a more formalised and comprehensive approach to manage credit-, market- and operational risk. Indeed, recent studies confirm that an increasing number of banks are now managing their risks more effectively by the adoption of more rigorous risk-based pricing practices in several banking markets³⁵. Supervisors have noted that in recent years the increased use of these more-formal credit risk-management procedures have enabled banks to choose their risk profiles rather than having it determined by external events³⁶. Banks are now better able to determine appropriate risk-reward ratios. Loan pricing is now more tightly linked to formal assessments of economic returns and the profitability of the credit and the overall client relationships³⁷. Sophisticated risk management methodologies based on the increased use of economic capital allow banks to compete more effectively³⁸. In doing so, the central challenge for banks is how to deploy capital on a *risk-adjusted* basis across all business lines in order to maximise organic earnings growth. Investors are increasingly critical of those larger financial groups that are not “best in class” in all their individual businesses³⁹.

³⁴ Blommestein (2005a).

³⁵ Schuermann (2004).

³⁶ Greenspan (2004).

³⁷ Greenspan (2004).

³⁸ For details see the so-called Barcelona Report – PricewaterhouseCoopers Risk Management (2004) and Blommestein (2005d).

³⁹ Investors point out that at one point large institutions such as Citigroup need to turn from being an acquisition machine to one driven by organic growth (FT.Com (2005)). But this requires that capital is being deployed across the organisation in such a way that organic growth is being maximised.

4.4. Why higher ethical standards are crucial

Business model characteristic 10 (**Table 3**) focuses on longer-term client relations and reputation by highlighting the importance of high corporate governance and ethical standards. Much has been published about the importance of implementing modern corporate governance principles, including those for banks, but less attention has been paid to the essential role of ethics in banking. Unfortunately, ethical standards are usually treated as an interesting thought but not taken seriously enough in practice. This is unfortunate because effective codes of business ethics serve as pillars of more conventional business standards including accounting standards, corporate governance principles and other codes of conduct. Moreover, they can also serve as the glue between these business standards. Without the glue of high ethical standards upheld at all levels of management, compliance with business standards could easily degenerate into empty, rule-based, legalistic exercises (“ticking off boxes”). In contrast, banks that adhere to high ethical standards will support in a direct and efficient way compliance with the *spirit* of corporate governance standards and other business standards⁴⁰.

Recent corporate scandals have put the spotlight on the unethical behaviour of banks and other gatekeepers of the public trust. Banks became early on a target of investigations concerning their role in the financing and advising of companies that were accused of manipulating their books. The role of bankers in IPO allocations also came under scrutiny, including criminal investigations. The scrutiny of banks by supervisors and others is justified because of their essential gatekeeper’s role. They are sometimes compared with spiders in the web of listed companies, brokers, exchanges, institutional investors and other financial market players.

Accordingly, banks are expected to play a central and active gatekeeper’s role to monitor the behaviour of their clients and other counter-parties⁴¹. In fact, there are indications that society expects that they take on increased gatekeeper responsibilities in the new business landscape⁴². Banks have therefore come under intense pressure to abandon their traditional morally neutral approach to business. This means that banks have to bear greater monitoring responsibilities as part of their (expanded) gatekeeper role. This

⁴⁰ Blommestein (2003a).

⁴¹ Blommestein (2003b).

⁴² Blommestein (2003b).

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view is a change with how banks used to operate in the past. In the words of the vice chairman of J.P. Morgan, “Our view historically was that our clients and their accountants were responsible for the clients’ proper accounting and disclosure of transactions.”⁴³

Also the greater complexities of markets and clients have made this revised gatekeeper role more demanding. Citigroup is a prominent example of these new challenges faced by bankers. Investors have attached a discount to Citigroup’s shares because of worries that the bank is extraordinary prone to regulatory problems resulting from a weak ethical corporate culture⁴⁴. In response to the various scandals that have touched Citigroup, its new CEO tries to impose a shared set of ethical standards on the firm’s 300,000 employees⁴⁵.

Some observers have opined that Citigroup’s problems may (in part) be the result of large-scale transformational mergers⁴⁶. Also the shift to financial conglomerates has increased the risk of conflicts of interest. Although these developments may have played a role, I believe that the observed examples of weakening of ethical standards in business are in the first instance and pre-dominantly related to a fundamental transformation of business attitudes. Companies are changing the way in which they operate in increasingly fluid market places, with new opportunities but also with new moral temptations. In this fast-forward modernising business environment with its growing trend of individualism in society at large, whereby traditional (moral) restraining influences on the behaviour of people have become largely obsolete, unethical behaviour is likely to flourish⁴⁷.

⁴³ International Herald Tribune, 30 July 2003.

⁴⁴ FT.Com (2005).

⁴⁵ As part of this ethics programme, employees have even to follow mandatory classes in ethics.

⁴⁶ Euromoney, July 2005.

⁴⁷ Blommestein, (2005e).

5. The direction of banking in the coming years

5.1. Convergence of banking systems?

There is an increasing overlap with, and stronger inter-linkages among, banks, capital markets, insurance companies, and other financial institutions such as hedge funds, resulting in a steady blurring of sectoral and product boundaries. Increased interdependence and inter-linkages have led to growing convergence among institutions and products in the OECD area. Looking ahead, the pace of financial sector convergence is unlikely to slowdown⁴⁸.

Convergence is to an important degree reflected in institutional changes. For example, the architecture of banks has begun to look more like insurance companies or like asset-managing pension funds, while many insurance companies resemble more than before asset-managing banks. Another example of institutional change is that even super-markets⁴⁹ and car companies are now providing banking services. Convergence is the result of stronger competitive forces within financial systems, leading to a more efficient performance of the core functions⁵⁰ of banks and other financial institutions. In other words, institutional changes in banking, the insurance sector, and capital markets mirror to an important degree the process of financial convergence, driven by stronger competitive forces. Public policy (in particular via financial liberalisation, deregulation and a shift to risk-based regulation and supervision) has encouraged more intense competition, leading to more efficiency (of one or more core financial functions) and increased convergence. But also modern risk control plays a central role in the convergence process of financial products, banking practices and banking institutions⁵¹.

⁴⁸ Blommestein and Schich (2004).

⁴⁹ An example is Wal-Mart, the world's biggest retailer – The Economist (2005c).

⁵⁰ Six core functions of financial systems can be distinguished: to provide ways to transfer resources; clearing and settling payments; to provide ways of managing and allocating risks; the pooling of resources and for ways subdividing ownership in projects and enterprises; to generate price information; to provide mechanisms for dealing with various incentive problems. See Merton and Bodie (1995).

⁵¹ Advances in financial theory in combination with the ICT wave have led to a significant expansion in the availability and use of risk management tools. More specifically, financial innovations and many new derivatives that have allowed risks to be measured and managed more effectively and distributed more broadly, have given banks in all jurisdictions access to superior ways of pricing and risk-budgeting in Geithner (2005). See also the discussion above on the impact of the risk management revolution.

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What has been the impact of these forces on the structure of financial systems in the various jurisdictions? For quite some time (the 1980s and the earlier part of the 1990s), the structure of *traditional* universal banking structures in Europe and Japan remained essentially intact. Later, in the 1990s, the globally operating universal banks from Europe started to adopt increasingly international business practices. In this development, European banks were following their globally operating domestic clients but changes in organisational and operating structures were also a competitive response for attracting new clients from other jurisdictions. Thus, in offshore centres, banks from Germany, Switzerland and the Netherlands started to offer essentially the same products and services as U.S. banking institutions, while some major European banking and non-banking corporations modified their disclosure practices so as to conform to international or US accounting standards.

Moreover, in the 1980s and 1990s, one could observe a much greater reliance by banks from all jurisdictions on capital market activities than in the past. These structural changes in the way banks operate are reflected in the respective shares of bank deposits and securities. Since 1980, bank deposits have grown more slowly than tradable securities [Chart 4]. In 1980, bank deposits were the dominant asset category, accounting for 45% of the global financial stock; to-day this share is around 30% of the total global stock of around \$118 trillion. It is expected that the share of bank deposits will decline further, reaching around 28% of the global financial stock of more than \$200 trillion at the end of 2010.

Chart 4: Relative global role of bank deposits and securities

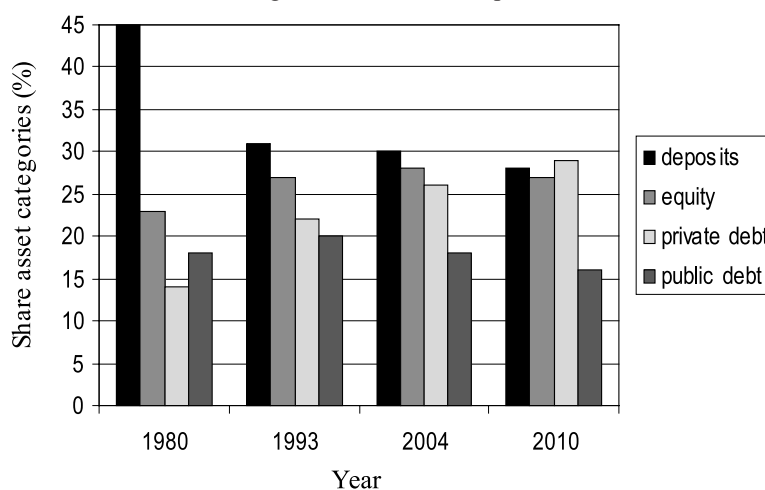


Chart 4 also shows that there is a shift away from bank deposits towards debt securities. Private debt securities are the biggest part of the global financial stock. In the period 1993–2003 private debt was also the fastest growing component, while total debt (private plus public) accounted for nearly half of the overall growth in financial assets in that period. At the same time, international issues of private debt have grown nearly three times as fast as domestic issues⁵². The shift to tradable instruments (including derivatives) was therefore both a manifestation and facilitator of the international integration of financial markets.

5.2. The emergence of large financial groups

These trends have resulted in important changes in the traditional universal banking structures of major banking jurisdictions. Thus, while universal banks from bank-based systems have reduced (and are still reducing) their equity stakes in non-financial companies,⁵³ thereby becoming “less universal”,⁵⁴ banks from all major banking jurisdictions are becoming “more universal” in the sense that they are increasingly offering the whole range of financial services. These include insurance, loans, capital market products, retirement products and asset management services. This marked the emergence of very large financial groups or conglomerates. In other words, the nature of universal banking has changed and can be expected to continue to evolve in the future.

The relative importance of financial groups among large financial institutions worldwide has increased considerably between 1995 and 2000. **Table 4** shows that conglomerates of financial institutions has increased both in terms of the proportion of financial groups and of the proportion of assets held by such groups; in 2000, 60 percent of the largest 500 financial institutions were conglomerates, up from 42 per cent in 1995.

⁵² Growth rates of 20% versus 7%, respectively (McKinsey (2005)).

⁵³ The process of selling equity stakes in non-financial companies is also accelerated by Basel II (see below).

⁵⁴ Some scholars, following the German model, further distinguish universal banks from other financial institutions through their holding of important equity positions and voting power in non-financial companies.

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Table 4: Evidence of Institutional Convergence
(Number and Size in percentage)*

	1995					2000				
	Asset Size (USD bn)			Financial Group		Asset Size (USD bn)			Financial Group	
	Highest	Lowest	Average	Number	Assets	Highest	Lowest	Average	Number	Assets
Global List										
Top 500 Financial Institutions	590.29	8.80	299.55	41.8	72.1	1,281.4	11.1	646.3	59.6	80.1
Top 250 Financial Institutions	590.29	31.28	310.79	69.2	80.7	1,281.4	34.1	657.7	72.2	83.6
Top 100 Financial Institutions	590.29	90.45	340.37	85.0	86.8	1,281.4	116.5	699.0	89.0	91.7
Top 50 Financial Institutions	590.29	169.14	379.72	88.0	89.4	1,281.4	257.5	769.5	92.0	94.2

* Based on a sample of top 500 financial institutions ranked by total assets, in billions of U.S. dollars.

Source: De Nicolo et. al. (2003).

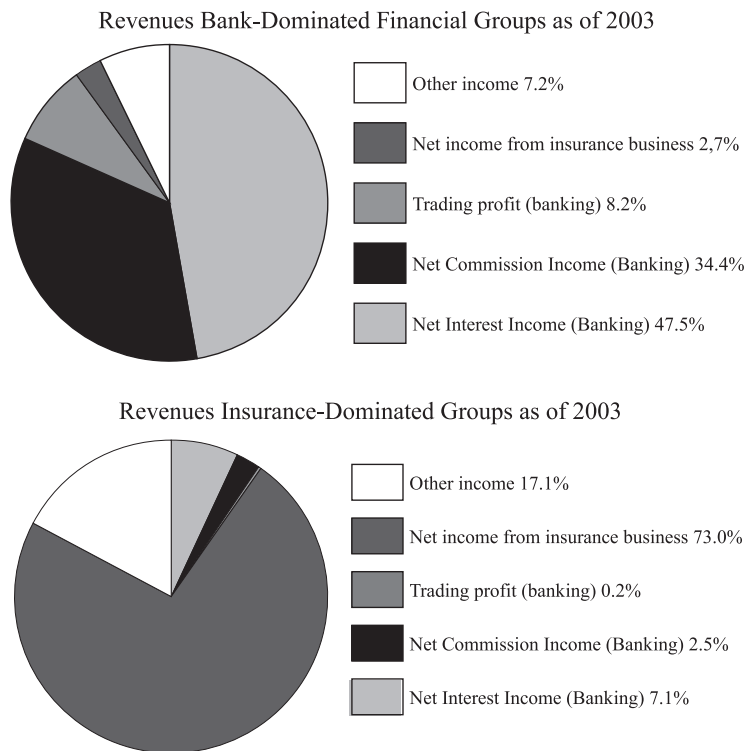
5.3. The emergence of one-stop banking and bancassurance

Although OECD countries continue to have quite diverse financial systems, significant convergence has taken place during the past two decades⁵⁵. In a number of countries the norm has become for financial institutions to form large groups that offer the full range of financial services (*i.e.* banking, securities, leasing etc.): *one-stop banking*. Countries that have such an institutional structure include the United Kingdom, the Netherlands, Germany, France, Italy and Spain, later followed by other major banking jurisdictions. Japan authorised banks and securities houses to expand into each others' primary line of business, while in the United States the removal of Glass-Steagall in 1999 eliminated the legal separation of banking and securities operations. Already when the latter barrier was still formally in place, banks and securities firms were active in offering close substitutes for each others' products, while banks' securities powers were extended significantly over time. This development is reflected in the current

⁵⁵ Monnet and Quintin (2005), p.7, argue that convergence in fundamental characteristics (such as regulatory regime) does not necessarily lead to convergence of financial systems as "history matters". They show within a general equilibrium framework that "[c]urrent fundamentals may not justify entry into the financial market for lenders who have yet to pay the fixed cost, but it may be profitable for incumbent lenders to stay put."

composition of revenues of large financial groups.⁵⁶ **Chart 5** shows the breakdown of revenues of large bank-dominated and insurance-dominated financial groups at the end-of-2003. While “core” business activities, i.e. net interest income, net commission income and trading profit in the case of bank-dominated insurance groups and insurance income in the case of insurance-dominated financial groups, continue to be the dominant source of revenues in the case of these institutions, the share of income from “non-core” business activities is substantial.

Chart 5: Distribution of revenues at large financial groups, as of 2003



Note: Breakdown of revenues for 30 large financial groups (capitalisation-weighted averages) based on published financial reports

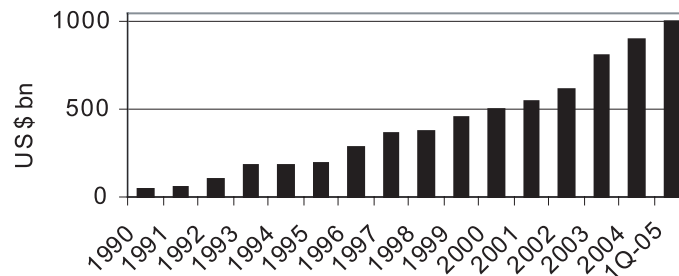
Source: Consolidated income statements/profit and loss accounts from the companies' annual reports or their annual financial reviews, and own calculations.

⁵⁶ This article defines a “financial group” as any corporate group that provides more than one type of financial services (e.g. banking, insurance, securities). In practise, each of these groups tends to have a unique organisational structure based on different combination of institutions. Insurance companies are the dominant entities in some of them (e.g. the Allianz and Axa Groups). Others (e.g. Nordea) are bank-dominated, while others are involved in all financial activities (e.g., Citigroup, ING Group, Credit Suisse Group, Deutsche Bank). See also Lumpkin (2003) and Schich and Kikuchi (2004).

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Asset management is another major business line that has contributed increasingly to the non-interest income of large financial groups. Pension reform and the growing demand for retirement products has been an important driver of the increased emphasis on asset management products and services. Also private banking services to high net worth individuals have become an important source of income for many banks in the US, Europe and Asia. Banks have also become heavily involved in hedge fund-related activities. The hedge fund sector has grown very rapidly (**Chart 6**).

Chart 6: Growth in Global Hedge Funds



Source: Hedge Fund Research

A significant part of banking income is being generated by acting as primary brokers for hedge funds⁵⁷. Moreover, many banks are themselves directly involved in hedge fund-type of activities by implementing absolute return trading strategies.

The increase in non-interest income is also driven by banks entering the insurance business. Many European banks reacted to the intensified competitive environment of the 1980s and 1990s by entering aggressively into insurance. This resulted in a new institutional model called *bancassurance*. The passage of the Gramm-Leach-Bliley (GLB) Act in November 1999 paved the way for a similar development in the USA. The GLB Act also loosened restrictions on banks' abilities to engage in underwriting securities. This allows US banks to take advantage of both diversification and economy-of-scope benefits as they expand into securities underwriting and insurance, thereby further accelerating the process of convergence between Europe and the USA.

⁵⁷For the larger players, prime brokerage services generate significant revenues and high operating margins

5.4. *The emergence of a new type of banking system*

Change and adaptation is taking place within each type of banking system (relationship-based and arm's-length). Deregulation, globalisation and increased competition have led to a narrowing of differences among banking systems. In addition, technology (including new ways for risk control) has played a crucial role in this convergence process by making it more efficient for banks to become larger and by allowing dispersion over larger geographical areas. However, views differ as to: 1) which banking systems (relationship based versus arm's-length) tend to promote innovation, and 2) whether the various banking systems are really converging towards a uniform model.

Clearly, what will emerge in the end will essentially be market-determined. Competitive forces, although tempered by political interference in many jurisdictions but strongly supported by technology and new financial instruments, will dictate the pace of convergence. It seems likely, however, that based on our long-term vision of the future, financial systems from all jurisdictions will be dominated by new and complex links between banks and capital markets⁵⁸, with many bankers operating as life-cycle engineers. A new hybrid type of banking system is therefore likely to emerge, with both strong links to capital markets and a renewed emphasis on competency-based relationship banking. In this new type of banking system, that will be called here *a relationship-cum-market-based banking system*, financial engineering and the integration of products and services from outside suppliers will play an even greater role than before.

Already now, this largely market-based process has already resulted in a significant involvement of banks in capital market activities⁵⁹ whereby their income is increasingly coming from non-interest income sources (**Chart 7**). And, as noted, the share of non-interest income is likely to grow further as the provision of a wide range of customised, life-cycle products becomes more important. New and stronger links with capital markets also include the increasing use of market data for credit evaluation and loan pricing⁶⁰, as opposed to employing banks' traditional internal store of relationship-based information⁶¹.

⁵⁸ Blommestein (2005b).

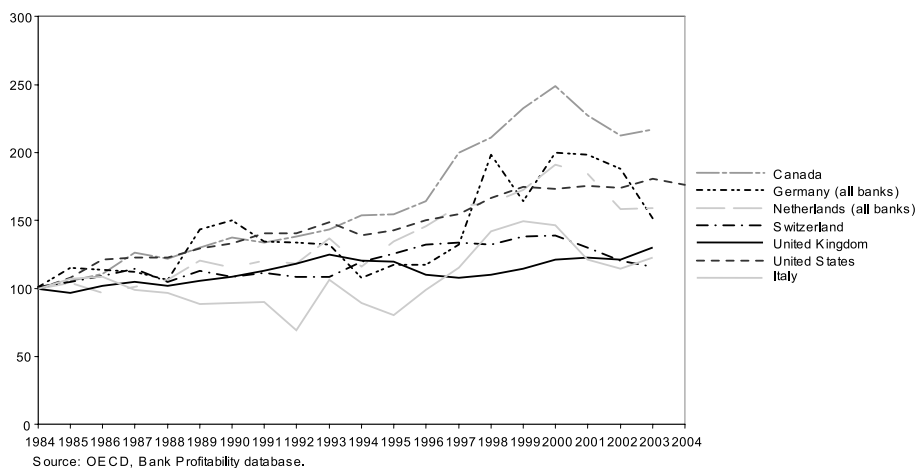
⁵⁹ See for details Blommestein (1999, 2005b).

⁶⁰ This means that a bank's rating has become an even more yardstick of its strength than before, as reflected in its funding costs as well as reputation more in general.

⁶¹ Moskow (2005b).

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Chart 7: Non-interest income of selected banking sectors
(as a percentage of total gross income, commercial banks, 1984=100)



5.5. The search for new business strategies in an increasingly market-oriented banking system based on longer-term relationships

There is a two-way interaction between banking structure and business model⁶². Future financial systems will be dominated by an even more significant involvement of banks in all jurisdictions in capital market activities, while there will be a new emphasis on sophisticated forms of relationship-banking, driven in part by the future business models based on the provision of integrated life-cycle products. But even in the current banking landscape new forms of relationship-banking are emerging⁶³. Moreover, greater diversity of participants in risk intermediation such as the greater role of hedge funds and other unregulated entities are a recent example of the increasingly stronger capital market links of banks with other financial institutions. (**Chart 6**)⁶⁴.

What are the consequences of these structural developments for existing business models in banking? I will address this question by examining the business logic behind fully integrated financial services groups and the traditional bancassurance model.

⁶² As noted, a new type of hybrid banking system is emerging – the relationship-cum-market-based (banking) system.

⁶³ A recent example is the move by Bank of America to combine its commercial banking group (focused on middle-market firms) with its large-company investment banking business. This step is aimed at exploiting B of A's vast network of long-standing relationships with middle-market companies.

⁶⁴ Geithner (2005).

5.6. Critical questions about the business logic behind fully integrated financial groups

The business model of fully integrated financial services groups (the financial supermarket), encompassing combinations of investment and private banking, whole-sale loan business, asset management, cross-selling of insurance and investment products, has played an increasingly important part in the financial landscape. At least until fairly recently, there was a consensus view that this type of business model would prevail. However, recent research suggests that the benefits from combining different types of financial services under one roof may be somewhat lower than previously thought.

Indeed, an increasing number of analysts and investors (and bankers themselves) have raised doubts about the viability of the business case upon which the large multi-faceted financial group is based. For example, focusing on the benefits for banks of expanding their business from traditional interest-income activities into non-interest activities, Schuermann (2004) and DeYoung and Rice (2004) highlight the limits of the benefits associated with such strategies.

Large financial groups such as Citigroup, J.P. Morgan, CSFB and Morgan Stanley have been criticised about their inability to make sufficient profits on a sustained basis. The synergies between the different companies of financial conglomerates are much lower than anticipated or, in any case, lower than internal hurdle rates of return. For example, the business logic behind the 1997 merger between the investment bank Morgan Stanley (a manufacturer of services) with brokerage firm Dean Witter (a distributor) was repeatedly questioned during the past few years, leading to the dismissal of the CEO responsible for the merger⁶⁵. Another example of underperformance concerns Citigroup, as measured by the trading at a discount of a benchmark portfolio to reflect Citigroup's range of businesses⁶⁶.

⁶⁵ Morgan Stanley Chairman and CEO Philip J. Purcell Announces Plans to Retire, Letter to my colleagues, 13 June 2005. Various reasons are mentioned including a mismatch between the two franchises due to the difficulties in integrating two business cultures (in Weidner (2005)), biased research due to the tie between underwriting and research, and lack of innovation at its Discover credit card business (in The Economist, (2005a)).

⁶⁶ This portfolio has been constructed as a benchmark by UBS. In mid-June 2005 the resulting proxy was trading at approximately 12 times earnings compared with Citigroup's 10.5 (Financial Times (2005d)).

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5.7. Is the business case behind the traditional bancassurance model still viable?

Recent measures by Citigroup to divest its life-insurance operations, American Express's decision to sell IDS, and announced strategic reviews of insurance operations at other financial groups, are all indications that the bancassurance model is not always functioning satisfactorily.

Analysts have identified two fundamental problems⁶⁷. *First*, manufacturing and selling insurance products via U.S. financial conglomerates is not very successful because of consumer attitudes ("cultural reasons"). U.S. customers prefer to go to brokers so that they can choose from a range of products by competing insurers⁶⁸ (in a similar way as selling mutual fund products manufactured by competing asset managers). In contrast, the traditional bancassurance model works better in Europe because European clients are more comfortable with buying a broad range of financial products such as insurance and investment products from the same manufacturing banks. Moreover, European conglomerates usually follow an *integrated* approach in selling these products. The recent actions of Fortis are a case in point. Fortis divested its U.S. insurance operations (Assurant⁶⁹) and reinvested part of the proceeds in Fortis Millennium BCP, which sells financial products through the BCP banking network⁷⁰. Also the fact that Citigroup is holding on to Primerica Life Insurance and Banamex Insurance Company points to the viability of the bancassurance model based on an integrated approach to selling the products of the financial group⁷¹.

⁶⁷ Standard & Poor's (2004), *European Bancassurance: Is There Still Life in the Model?* RatingsDirect, 12 February; Standard & Poor's (2005), *Is Bancassurance Working For U.S. Banks?* RatingsDirect, 9 February.

⁶⁸ BB&T, Wells Fargo and Wachovia have built up very large insurance brokerage businesses.

⁶⁹ Assurant was profitable but had no connections to the other operations of the Fortis group.

⁷⁰ There has also been reports that Dutch financial conglomerate ING is considering to sell its US insurance operations because of lack of success at cross-selling insurance through its banking network and, vice versa, selling banking products through its insurance network. It is estimated that less than 30% of its insurance policies are sold through its banking outlets (Lancher (2005)).

⁷¹ Both Primerica and Banamex are integrated into the group, with sales forces that also sell other group products.

Nonetheless, also the European-style integrated banc assurance approach may have to be revised⁷². The competency-based business model template from **Table 3** indicates that customers can be expected to demand increasingly tailored, life-cycle products. This may require either a highly sophisticated manufacturing capability (to put together these tailored products) and/or an open architecture model⁷³ whereby banks, insurers and financial groups can sell the products manufactured by other (specialised) institutions⁷⁴.

A *second problem* identified with the operation of banc assurance models is the low level of profitability. This follows directly from another feature of the competency-based banking model from **Table 3** that requires banc assurance groups to use a strict performance framework for assessing the profitability of manufacturing insurance products. For example, in the US most insurers do not achieve earnings on capital above the 12% level, while US banks record ROEs of more than 20%. As a result, manufacturing insurance products lower therefore the ROEs of bancassurance groups. This disparity in ROEs is much less among European banks⁷⁵.

In sum, the central challenge for banc assurance groups in both jurisdictions is how to deploy their capital on a *risk-adjusted* basis in order to maximise their organic earnings growth. And, as outlined above, this approach may require a major revision of business models in both the US and Europe.

⁷² A case in point is Dutch financial conglomerate ING, Europe's biggest combined banking and insurance operation. ING announced last year that it was splitting its banking and insurance operations. The revised business model recognises that insurance and banking are two different businesses with different tools for driving profit, even when there are synergies between them. This model focuses on being excellent in the individual business lines, although there continue to be possibilities for cross-selling (Lancher (2005)).

⁷³ The open architecture model is an example of a network structure that facilitates the co-ordination and integration of externally supplied products and services (See Table 3).

⁷⁴ It has also been noted that the integrated approach can in practice lead to a closed system with the captive manufacturing and distribution of financial products by financial groups. This situation runs counter to the trends identified in section 4 of more focus and selectivity (via separating functions) as well as increasing competition. The lack of competition associated with closed systems may prompt regulators to step in. For example, the Israeli authorities recently imposed an open architecture model for mutual fund products by ordering the separation of banking groups that manufacture mutual fund products from the banks that sell them (Bender (2005)).

⁷⁵ Standard & Poor's (2005).

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5.8. Focusing, unbundling and outsourcing in a rapidly changing financial landscape

These critical questions have made a fundamental review of the prevailing major banking strategies⁷⁶ very urgent. More in general, as noted in **section 4**, existing business models are under pressure from new competitive forces, in particular the penetration of main banking markets by non-banks. Disintermediation by non-banks poses a threat along a wide front, including in such areas as brokerage services, loans and payment services⁷⁷. Other important developments of a somewhat longer-term nature are related to the expectation that the demand for financial services will continue to grow at a rapid pace. Our earlier discussion of bankers as life-cycle engineers and the features of the emerging post-utopian society explain why an important part of this increase in demand is structural in nature, consisting of tailored, life-cycle products.

As outlined in **section 4**, bankers are responding with various new business strategies to deal with these new challenges. Unbundling (de-merging), outsourcing, joint ventures and partnerships to run non-core businesses are part of a new trend towards more focus and higher selectivity. For example, Citigroup sold in 2004 its Traveler's insurance unit (which became part of Citigroup in 1998); this year Citi made another step in moving away from its financial supermarket model by a plan to swap its asset management business for a new brokerage business. There have even been suggestions to break Citigroup into different companies, arguing that these smaller companies would be easier to manage and worth more separately than as part of Citi⁷⁸. Credit Suisse sold parts of its insurance operations in 2003. American Express is intending to spin off its financial-advisory service, while Morgan Stanley decided to sell its Discover credit unit⁷⁹.

⁷⁶ Bank assurance, one-stop banking, product-led retail banking and global whole-sale banking

⁷⁷ Money broker Icap announced in April of this year plans to launch a new business division that will bypass banks. Also hedge funds have started to compete with banks that provide prime brokerage services. Some larger hedge funds are internalising many of the brokerage services formerly purchased from banks. Hedge funds increasingly are running their own repo desk, securities-lending operations and conducting their own research. A few large hedge funds bypass brokers and trade directly with other investors. Another example is the competitive pressure of the eBay/PayPal model on the payment services of banks. Banks will need to fight back. For example, by making cross-border transactions cheaper, reducing IT and operations costs of securities and payments transactions, and enforcing payments standards on customers (Maguire (2005)).

⁷⁸ Elstein (2005). In a similar vein, Ford and Cox (2005) have argued that a break-up of Citi would result in a market valuation 20% higher than the current market price.

⁷⁹ After the dismissal of CEO Philip Purcell, analysts have argued that the rest of Morgan Stanley should be broken up as the parts are worth more than the whole (Clelland (2005)).

5.9. Moving from one-stop banking to focused financial groups mark II

Against this backdrop, it seems increasingly clear that the trend towards one-stop banking, and the related adoption of the fully integrated conglomeration model, will need to be discontinued. The trend to large financial groups *mark I*, that offer the full range of products, is likely to be replaced by the formation of highly adaptable but more focused financial groups that offer a more limited range of core services, while non-core business is being outsourced, run or pooled via joint ventures and partnerships. These financial groups *mark II* constitute an important example of the earlier identified relationship-cum-market-based banking system. They are not necessarily smaller in balance sheet terms than the *mark I* groups, especially for the globally operating firms for which size is still an indispensable strategic feature (see also the discussion below on M&As). But *mark II* organisations are more flexible that exploit better their core competencies, including a renewed focus on relationship banking, although they could at the same time be participants in all sorts of relatively loose forms of arrangements; for example whereby one financial institution distributes the other financial institution's products⁸⁰. Moreover, these more focused *mark II* organisations are capable to use sophisticated group-wide economic capital models, whereby capital is re-allocated across business lines whenever needed.

More in general, future financial groups are likely to be highly competency-based institutions that share the principal features of the new business models summarised in **Table 3**. The new emphasis on sophisticated forms of relationship banking (supported by new technologies) has put the spotlight on new business models for retail banking that put innovative, cost-effective branch networks centre stage⁸¹. There is also a search for new business models for private banking. For many banks this has become an

⁸⁰ Strategic alliances allow banks and other financial firms to distribute the products of specialist producers. For example, Barclays Bank concluded a few years ago a strategic alliance with Legal & General to distribute the insurance firm's savings and investment products. The largest Dutch Bank, ABN Amro, announced that they may form a joint venture with Babcock & Brown (Australia's second-largest securities firm) to work on investments in infrastructure projects (Bloomberg (2005)). Also in Japan there is a marked movement toward business alliances between major banking institutions and non-banks (in Fukui (2005)). Another important driver of joint venture arrangements is that they tie up much less prudential capital than entities that are part of a financial group. For example, selling insurance products as part of a joint venture is much less capital-intensive than selling in-house manufactured products.

⁸¹ An interesting example is U.S. bank Wells Fargo that aims to offer a wide range of retail customer services via its branches based on an integrated sales efforts model. Wells's strategy is to use the existing, long-term relations with its clients to sell multiple products and services, →

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important business line, while at the same time many institutions are planning to implement or have carried out major overhauls of existing asset & wealth management activities (including hedge fund-like operations)⁸².

All these considerations indicate that focusing, unbundling⁸³ and outsourcing is to an important extent the outcome of a fundamental overhaul of prevailing banking strategies so as to achieve greater focus and selectivity. Indeed, recent merger and acquisition activities mirror in part the move away from the fully integrated groups *mark I*. As noted, there were some well-publicised cases where banking-insurance ties were actually dissolved. The specialisation and focusing trend resulted also in the creation of very large *monolines*⁸⁴. Monolines include banks which specialise in custody and other wholesale securities processing services⁸⁵, or in retail services⁸⁶.

including insurance products via its brokerage arm. Bank of America and Wachovia pursue similar strategies, while J.P. Morgan Chase and Citigroup are also serious competitors (Dash (2005)).

Another prominent example is the Santander group where the vast majority – 82% – of its revenues is derived from retail banking. Parthenon is the retail bank technology platform that has the customer database at its heart. Along this database there is a product catalogue, making cross-selling very cost-effective. All of this information is reconciled into a catalogue of all banking operations and a continuous settlement model. Santander has used this competitive tool also to reduce costs at new acquisitions such as UK retail bank Abbey (Horwood (2005)).

The Italian bank Capitalia provides another interesting model. Capitalia has revolutionised its business via the adoption of a financial services supermarket store for retail customers, loosely built on the business model of large US retailer Wal-Mart. Noteworthy is further that Capitalia's innovative business model emphasises better relations with customers, offers a wide range of bank and non-bank services, and has an important place for technology, in particular a customer relations management system that simplifies selling products and helps to identify the needs of customers (Financial Times (2005a)).

But Morgan Stanley's retail troubles make clear that the implementation of a successful business model for retail banking is fraught with many obstacles (Thomas (2005)).

⁸² A recent example is the move by UBS to create a new hedge fund arm as well as the consolidation of its US and global wealth management activities into a global private banking group (Financial Times (2005b)).

⁸³ Unbundling allows banks to choose between being product manufacturers (e.g. of mortgages, SME loans, insurance, etc.) or distributors that specialise in customer relationships (as noted in section 4, technological developments are greatly increasing the possibilities for unbundling).

⁸⁴ Another example of achieving focus, selectivity and rationalisation is the pooling of routine banking functions. German banks have created a loan factory for processing smaller loans on behalf of participating banks, while 3 large banks have merged their mortgage businesses (Deutsche Bank, Dresdner Bank and Commerzbank have merged their mortgage business into a new company called Eurohypo). Another example of pooling routine functions concerns the processing of UK cheques via Intelligent Processing Solutions Ltd (iPSL) (iPSL was set-up by Barclays Bank, Lloyds TSB and technology service firm Unisys). These pooling decisions amount to a de-merger of non-core businesses. A successful pooling model would result in a significant reduction of unit costs via economies of scale and the sharing of technology development costs.

⁸⁵ For example, State Street, Bank of New York, Northern Trust and Mellon Bank. Mellon Bank is an interesting example of the transformation from a full-service bank into a highly specialised asset and securities firm.

⁸⁶ For example, US credit card specialist MBNA and Bank One.

6. The continued importance of M&As in banks' business models

Although the search for greater focus and specialisation has resulted in unbundling (de-mergers) of activities, there is still an important place for merger and acquisition activity in shaping the banking sector of the future. Lately, many M&A activities have taken place within the same part of the financial sector, and less across different parts, often driven by consolidation efforts in domestic markets. However, cross-border M&As have become more important because they seem to be essential for especially the internationally operating banks to prosper, or even to survive, in the global market place⁸⁷.

Although the business model for large financial groups was critically reviewed above, it is not suggested that size as such is *the* problem. On the contrary, technology allows the creation of larger firms by improved control by multi-bank holding companies over their bank subsidiaries and many branches. Indeed, modern banking is about the technical ability to run huge operations – consisting of large branch networks, a vast network of relations with corporate and retail clients, highly complex ICT-systems, and thousands of employees – on a profitable basis⁸⁸.

6.1. Consolidation and economies of scale

Indeed, much of the economies of scale are the result of consolidation supported by new (or better use of existing) technologies. This has allowed banks to reduce significantly their operating costs. Important scale economies were obtained by combining back offices and branch networks. In addition, applied technologies such as ATMs, automatic deposits, online bill paying and computerised loan approvals have allowed banks to reduce wage costs while increasing their businesses. At the same time, banks have opened new branches at attractive locations. As a result, consolidation and technology have been (and still are) important drivers of improvements in profitability in many banking jurisdictions, while it has also contributed to the breadth and convenience of banking services.

⁸⁷ This is in particular the case for European banks (see below).

⁸⁸ A recent example of reorganising a very large banking organisation so as to take better advantage of its size, is Bank of America's move to combine its commercial banking group with its investment banking business.

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Accordingly, during the last 15 years or so, banking sectors all over the world have been undergoing consolidation on a massive scale, largely driven by M&As (and to a lesser degree by banking failures)⁸⁹. As a result, the number of banks in the six leading banking markets (US, UK, Japan, France, Italy, Germany) nearly halved, on average, between 1990 and 2002. In that same period the share of the 50 top banks in total banks' assets increased from 45% to 55%, predominantly through mergers (**Chart 8**).

CHART 8a: Global top 1000 banks' assets in 1995 (source: The Banker)

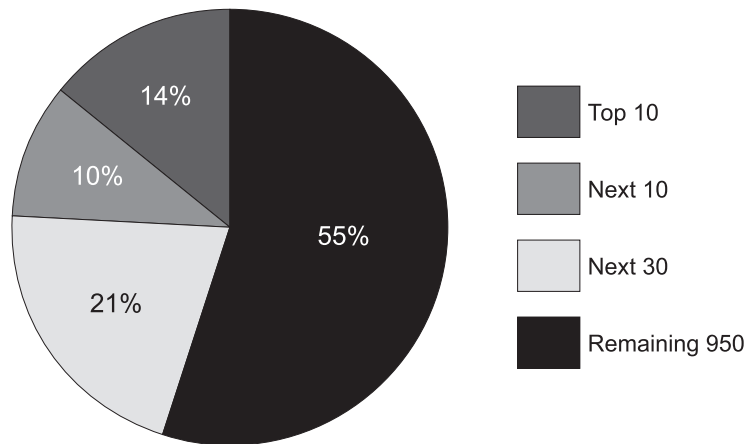
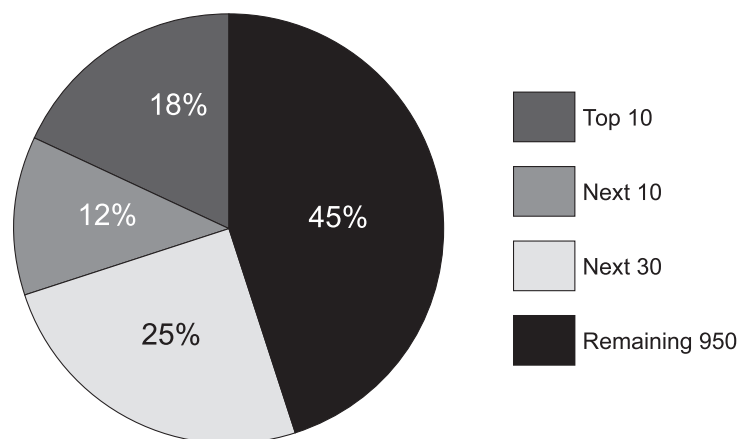


CHART 8b: Global top 1000 banks' assets in 2002 (source: The Banker)



⁸⁹ For example, the bulk of the decline in the number of US banks in the period 1984–2003 (a total of 8122 individual banks and thrifts disappeared) was in the form of mergers and purchases by holding companies (Jones and Critchfield (2004)).

6.2. *The increasing importance of cross-border mergers*

However, the competitive pressure to continue consolidation is immense, in particular in the strategic areas of retail & commercial banking and wealth & asset management (private banking). Moreover, as noted above, also the larger financial conglomerates *mark I* are adapting their business models so as to achieve greater focus, selectivity and profitability. And although important domestic consolidation has taken place, further progress is needed, including via more strategic emphasis on cross-border M&As. In this context some analysts have argued that in many places the gains of domestic consolidation have by now been exhausted and that therefore we are likely to see a growing trend towards cross-border mergers⁹⁰.

In Europe, many banks are still not profitable enough, while they are also too small. For example, the cost-to-income ratios of many European banks (especially those within the euro zone) are higher than those of their US rivals, while also their return-on-equity (ROE) is, on average, lower than those of internationally operating US banks⁹¹. The search for efficiency gains and higher profitability is therefore an important driver of M&A activity in Europe⁹². Realising these gains requires that the management of the acquiring bank is more effective at cutting costs than the target bank⁹³. Surveys of banks' strategies in the euro zone show that preserving market share is of major strategic concern, motivating both domestic and euro area-wide consolidation⁹⁴.

This move to larger scale is based on the consideration that economies of scale allow banks to realise operational and cost synergies, thereby enhancing their franchise value. Indeed, recent banking research finds evidence of significant cost scale economies⁹⁵, supporting the view that the incentives for

⁹⁰ UBS (2005).

⁹¹ Blommestein, (2004).

⁹² Rudy Vander Vennet has analysed various aspects of M&A activity in Europe. See Vander Vennet (1994, 1996 and 2002).

⁹³ Altunbas and Marques Ibanez (2004), concluded that, on average, bank mergers in the EU resulted in an improved return on capital.

⁹⁴ ECB (2005).

⁹⁵ Greenspan (2004) recently observed that "[r]esearch at the Federal Reserve and elsewhere is consistent with other indications in the past decade or so of cost scale economies, or fewer diseconomies...".

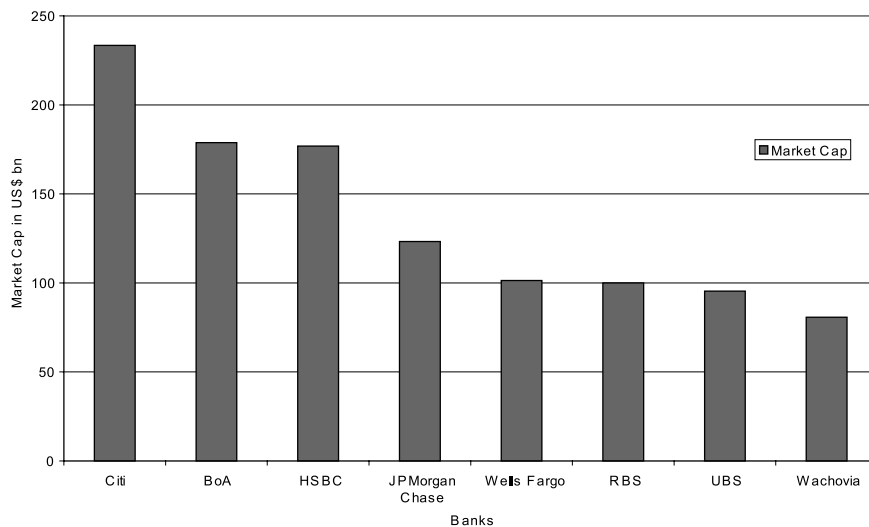
⁹⁶ See Buch and Delong (2002). However, this is not to say that scope economies are completely absent or unimportant. Especially the larger diversified firms should have the capacity to realise economies of scope through information technology, benefits of global brand name, financial innovation, and risk diversification.

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cross-border mergers rely more on economies of scale than scope⁹⁶. As noted, technology (which has lowered communication and information costs), together with deregulation or liberalisation as permissive factors, are the principal enabling drivers of financial conglomeration⁹⁷. The evidence for scale economies is also supported by the process of domestic consolidation taking place in the US as well as in individual EU countries. Indeed, the larger, complex banking groups that are best at running their operations on a profitable basis have good reasons for further (cross-border) expansion. For example, recently many of the larger U.S. and European banks are rapidly expanding their presence in emerging markets, in particular in Asia.

In the euro area, larger banks are, on average, more cost-effective and profitable than smaller ones⁹⁸, thereby motivating further M&A-driven consolidation in Europe. But also many of the larger European banks need to expand further if they are to survive the fierce global competition. Although in terms of bank assets Europe's larger banks are not much smaller than most

Chart 9: Market Capitalisation top 8 banks



⁹⁷ In addition, the increase in global financial services is a demand-pull driver of conglomeration. In particular the increased demand by internationally operating corporate clients for a wide range of financial products that should be available on a global scale, is mentioned in this context. Bankers themselves refer also to the revenue enhancement from product diversification, the ability to offer one-stop banking services, as well as economies of scope in the production of bank services. However, as noted, the evidence in favour of economies of scope is not clear-cut. It seems to be confined to smaller speciality firms in the investment industry. (De Nicolo et al. (2003)).

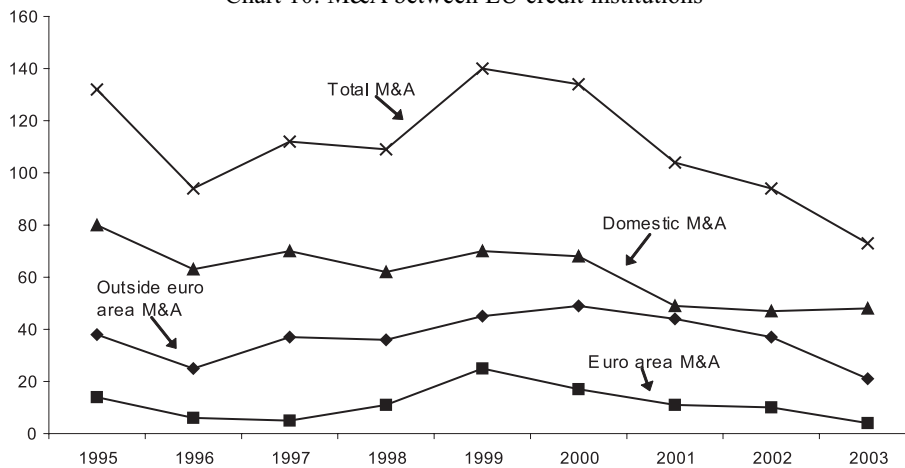
⁹⁸ For example, in 2003, the cost-to-income ratio was 66% for large banks and 69.8% for small banks, while the ROE was 7.93% and 5.83%, respectively.

US and Japanese banks (in fact, quite a few EU banks are larger in terms of assets), *market capitalisation* tells a different story! In capital market terms, many of Europe's larger banks are relatively *small* in comparison to the biggest US firms. Internationally, only HSBC (with a market capitalisation of around US\$ 177 billion) is in the top 5 of global banks (**Chart 9**).

Other larger European banks are much smaller⁹⁹ (RBS US\$ 100 billion; Barclays US\$ 61.5 billion; BNP Paribas US\$ 47 billion; Deutsche Bank US\$ 34 billion and ABN AMRO US\$ 37 billion). This simple overview shows that (some of) these medium-size European banks may be potential targets for take-overs by competitors from both Europe and the US. Even those European banks that manage to remain independent would need to give-up global or perhaps even pan-European ambitions, if they are not big enough to compete effectively with their larger rivals.

Unfortunately, significant barriers make it difficult to conclude cross-border mergers within Europe, thereby also making it very hard to create truly pan-European banks. Although there was in 1991 a marked increase in M&A activity (coinciding with the signing of the Treaty on European Union), the majority of deals (80%) involved domestic institutions only¹⁰⁰. However, even domestic M&As as a percentage of the total has been diminishing since 1991. Cross-border, euro area M&As also fell after 1995. Subsequently, activity picked-up with a peak in 1999, before falling below the 1995 and 1998 levels at the end of 2003 (**Chart 10**).

Chart 10: M&A between EU credit institutions



⁹⁹ All data as of June 30, 2005, except RBS (April 2005) and Barclays (May 2005).

¹⁰⁰ ECB (2005).

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The underlying obstacles to cross-border mergers in the EU are pre-dominantly political¹⁰¹. In fact, ABN Amro's battle for control of the Italian bank "Banca Antonveneta" is symptomatic of the inherent political difficulties to create a truly pan-European banking market. There are both economic and political¹⁰² barriers but most of the deep-seated challenges to further integration of EU banking markets are linked to political barriers. At the moment it is quite obvious that in all EU banking jurisdictions no significant cross-border deal can be made without the silent or explicit approval from governments. Tom de Swaan, ABN Amro's CFO, noted that EU governments and supervisors have demonstrated a "very limited preparedness to yield power".¹⁰³ Gerrit Zalm, the Dutch Minister of Finance, has called for changes in the EU supervisory approval process "to prevent some [supervisors from] member states protecting their markets from foreign entry"¹⁰⁴.

The continued entry of European banks in the highly competitive US banking market, as well as the fact that European and American banks are moving into emerging markets, also provide support for the view that these politically motivated barriers are relatively strong in Europe. As noted, this is a highly undesirable situation as cross-border M&As are essential for the internationally operating EU banks to prosper (or even survive) in the global market place over the longer-term¹⁰⁵.

6.3. The role of risk diversification in M&As

In addition to market share and economies of scale (and scope), risk diversification is also an important driver of merger activities¹⁰⁶. In particular cross-sector consolidation has been credited with the potential to diversify income risks. Empirical studies have evaluated the risk-reduction potential of combinations of traditional and non-traditional banking activities such as insurance and securities activities. For example, Kwast (1989) studied the

¹⁰¹ Blommestein (2005f).

¹⁰² This includes regulatory (and supervisory) obstacles as these are under the control of (and the result of) the political process.

¹⁰³ Financial Times (2004).

¹⁰⁴ The Banker, (2005). Some analysts have argued in favour of major changes in the EU's supervisory structure. For example, Eijffinger (2004) argues in favour of a European Financial Services Authority to improve cross-border supervision.

¹⁰⁵ The Dutch Minister of Finance notes in this context that "some of the large, EU-based groups tend to be bigger outside the EU than within it." (Zalm (2005)).

¹⁰⁶ For example, Morgan (2000) argues that diversification across product lines and markets was an important driver of mergers in the 1990s.

correlation between bank's engagement in eligible securities activities and non-trading assets and found some potential for diversification gains¹⁰⁷. This conclusion was confirmed in a recent study by Geyfman (2005) by reporting evidence of diversification gains for banks that participate in the securities business¹⁰⁸. Boyd and Graham (1988) concluded that merging banks with life insurance firms would decrease the bankruptcy risk of the merged entity. Lown et al. (2000) show that there are clearly diversification benefits to mergers between bank and life insurance companies¹⁰⁹. Another study provides an estimate of the incremental diversification benefits between insurance and banking activities, ranging from a 5% to 10% reduction in capital requirements, depending on the business mix¹¹⁰. Estrella (2000) concludes that there are potential diversification gains from virtually all combinations of banking and insurance (both life and P&C)¹¹¹.

Also a recent ECB analysis of the correlation between returns on euro area banking and insurance indices concludes that there may be diversification benefits from conglomeration. Although the "raw" correlation between these indices is very high and therefore the potential for risk diversification low, an adjusted correlation analysis by filtering out market-wide movements, yielded much lower correlations often near zero¹¹². The same ECB study concluded that the highest returns per unit of risk over the period 1990–2004 is achieved when banking and non-life insurance are combined.

In a recent empirical study conducted at the OECD, potential benefits of diversification strategies from the perspective of individual banks were examined¹¹³. More specifically, the study focused on the risk-reduction potential of combining (hypothetically) traditional, homogenous banking activities with non-traditional activities such as insurance (see **Annex A** for details). All calculations reported here are based on German data (see **Annex B** for details).

¹⁰⁷ But Kwast (1989) also concludes that securities or trading activities are associated with higher volatility of returns, but not necessarily higher average returns. Also Stroh (2002) concludes that greater reliance on non-interest income, particular trading revenue, is associated with higher risk and lower risk-adjusted profits.

¹⁰⁸ See Geyfman (2005).

¹⁰⁹ Lown et al. (2002).

¹¹⁰ See Oliver, Wyman and Company (2001). A revision of this report was presented at the Netherlands-United States Roundtable on Financial Conglomerates as Kuritzkes et al. (2002).

¹¹¹ Estrella (2000).

¹¹² ECB (2005).

¹¹³ This study is part of a larger project on risk management strategies by banks in the OECD area. Follow-up research will focus, inter alia, on risk diversification & systemic risk; credit risk transfer & banks; diversification across geographical lines & cross-border mergers; and the use of financial risk models based on copulas.

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A first indication of the risk reduction potential of mixing traditional German banking business with non-traditional activities such as insurance can be deduced from the following variance-covariance matrix (**Table 5**).

Table 5: Variance-covariance matrix of German financial sector returns, February 1990 to March 2005

	Non-life insurance	Reinsurance	Life insurance	Banking
Non-life insurance	0.9256	0.2412	0.2512	0.2071
Reinsurance	0.2412	3.8291	0.5611	1.6475
Life insurance	0.2512	0.5611	2.3603	0.5156
Banking	0.2071	1.6475	0.5156	1.9123

Source: H. J. Blommestein and S. Schich (2005)

Table 5 shows that from the perspective of banks, non-life insurance activities lead to potentially larger diversification gains than those associated with life insurance. Sectoral correlations and covariances for a longer period and a broader set of activities give a similar picture (**Annex C, Table C1**). These findings are also in accordance with a recent ECB study¹¹⁴ and US research¹¹⁵. But in contrast to these recent results, earlier studies of the risk-return characteristics of pre- and post-merger firms found that life-insurance firms offered the best prospect as a match for banks¹¹⁶.

Correlation and covariance results using data of individual (German) financial firms confirm that pro-forma mergers between non-life firms and banks yield potentially larger risk diversification gains than those associated with life insurance (**Table 6**)¹¹⁷.

¹¹⁴ ECB (2005).

¹¹⁵ Estrella (2000).

¹¹⁶ See Boyd and Graham (1988), Lademan (1999) and Lown et al. (2000).

¹¹⁷ The results from Table 6 should be interpreted together with the information from Table B1 in Annex B.

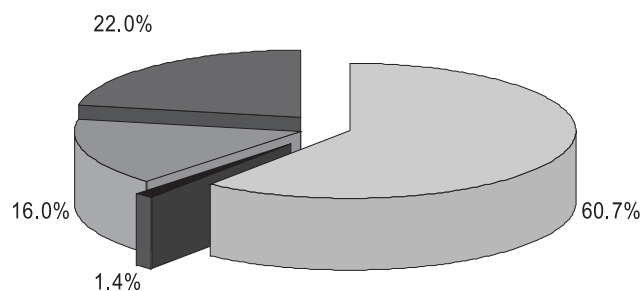
Table 6: Germany: Selected Company Correlations (upper triangle) and Covariances (diagonal and lower triangle), 1980–2005 (June)

WUESTENROT & WUERTT.	0.00012	0.01	0.06	0.04	0.01	0.04	0.02	0.16	0.01	0.02	0.02
DBV-WINTERTHUR HOLDING	0.00000	0.00036	0.14	0.13	0.08	0.04	0.12	0.05	0.09	0.13	0.1
ALLIANZ.	0.00001	0.00005	0.00036	0.61	0.17	0.17	0.63	-0.13	0.58	0.58	0.29
NUERN-BERGER BET.REGD.	0.00001	0.00005	0.00024	0.00042	0.15	0.1	0.5	-0.05	0.46	0.46	0.24
MUNCH. RUCK. REGD.	0.00000	0.00006	0.00013	0.00012	0.00097	0.08	0.21	-0.02	0.14	0.18	0.15
HANNOVER RUCK.	0.00001	0.00001	0.00005	0.00003	0.00003	0.000022	0.16	0.03	0.15	0.17	0.06
DEUTSCHE BANK	0.00000	0.00004	0.00020	0.00017	0.00015	0.00004	0.00028	-0.13	0.63	0.68	0.31
DEXIA HYPOTHEKENBANK	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	-0.06	0.03	-0.22
BAYER. HYPO-UND-VBK.	0.00000	0.00004	0.00022	0.00019	0.00012	0.00004	0.00021	0.00000	0.00039	0.63	0.26
COMMERZBANK	0.00000	0.00005	0.00020	0.00017	0.00014	0.00004	0.00021	0.00000	0.00023	0.00033	0.28
UNICREDITO ITALIANO	0.00001	0.00004	0.00012	0.00011	0.00008	0.00002	0.00012	-0.00001	0.00012	0.00011	0.00045

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The conclusion that non-life insurance activities possess potentially the largest diversification gains for banks has been further investigated by calculating the risk reduction potential of pro-forma weighted combinations of financial activities (instead of using the available German data on individual sectoral activities). Blommestein and Schich (2005) have calculated the potential risk reduction associated with various weighted combinations¹¹⁸. They show that portfolios with higher weights for non-life insurance activities contribute significantly to risk diversification. The portfolio (or financial group) with the lowest overall minimum-variance has been calculated as the solution of a constrained optimisation problem (see **Annex A**). This minimum-variance portfolio has an estimated expected return of 0.026 with standard deviation equal to 0.806. The associated weighted combination of activities is (**Chart 11**): non-life activities 60.7%, banking 22%, life-insurance 16%, and re-insurance 1.4%¹¹⁹.

Chart 11: Weights of minimum-variance portfolio



■ (Non-life) insurance ■ Reinsurance ■ Life insurance ■ Banking

6.4. Risk diversification gains from cross-border M&As in banking and insurance

Risk diversification also plays a role in cross-border mergers. Schoenmaker (2005) reports on research¹²⁰ concerning the potential for cross-border risk diversification gains by banks from different EU jurisdictions (**Table 7**).

¹¹⁸ Blommestein and Schich (2005, 2006).

¹¹⁹ Blommestein and Schich (2006).

¹²⁰ Schoenmaker (2005).

Table 7: Probability that the stock price of two banks will decrease by 5% in a single day

	National bank	Bank from another EU country
English bank	15%	14%
German bank	25%	17%
French bank	44%	21%
Italian bank	16%	15%
Dutch bank	35%	19%
Spanish bank	21%	16%
Average probability	24%	17%

Source: J.F. Slijkerman, *Banking Across Borders: The Risk of National Champions*, Mimeo, Erasmus Universiteit, Rotterdam.

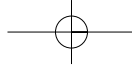
Note: The table reports the probability that the stock price of bank 2 falls by 5% or more, given that the stock price of bank 1 drops by 5% or more.

Table 7 shows the potential for risk diversification gains for banks from cross-border mergers within the EU. The probability that the stock price of bank 2 falls by 5% or more, given that the stock price of bank 1 drops by 5% or more, is on *average* 24% within countries. There is a clear potential for risk diversification gains for banks from different EU countries because this average drops to 17% for banks from different EU countries.

Against this backdrop, the results of a concrete case, the cross-border merger between HypoVereinsbank (a German bank that has lost more money in 2004 than any other institution in the top 1000 listing of global banks) and Unicredito (a profitable Italian bank), are quite interesting. Earlier this year, Unicredito took over HypoVereinsbank (HVB), although bank analysts had raised doubts about the (strategic) benefits for Unicredito's shareholders as the deal meant buying "a large exposure to an unprofitable German market" and possible holes in HVB's balance sheet¹²¹. Table 7 confirms, at an aggregate level, that a cross-border merger can generate (on average) risk diversification benefits for a German bank, but not necessarily (or not at all) for an Italian bank¹²². Table 6 shows the potential for risk diversification of a merger between Unicredito and various German banks. It can be noted that the risk diversification gains between Unicredito and HVB do not stand out (a merger with Deutsche Bank, Dexia or Commerzbank would yield the same or even larger risk diversification gains).

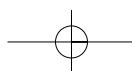
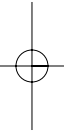
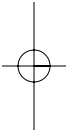
¹²¹ The Banker (2005).

¹²² Table 7 demonstrates that the potential average diversification gains from cross-border mergers of Italian banks is very low (16% → 15%), whereas the potential reduction in risk for German banks is significant and even higher than the reduction of the EU average (25% → 17%).



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The cross-border results from Table 6 confirm the earlier derived conclusion that combinations of banks and insurance companies possess larger risk diversification gains than mergers between banks. German insurance companies would benefit more from a merger with Unicredito than German banks, while non-life companies would benefit most.



7. Concluding remarks

For the first time in history, a global techno-market order is transforming the world of finance, business, and society more broadly, raising urgent questions about the future of banking. Revolutionary forces shaping a fast-forward modernising post-utopian society are also changing the nature of the growing demand for financial products. In particular, the demand for products and services that address in effective ways their life-cycle planning and risk control needs is increasing rapidly. This post-utopian society creates therefore new challenges and opportunities for bankers to operate as *life-cycle engineers*, whereby a substantial part of their income is expected to come from offering an integrated approach to advice and asset-and liability management.

The rapid development of securities-related activity is likely to continue, in large part due to the continued strong demand of investors, households and enterprises for an expanded range of life-cycle products with highly differentiated (customised) risk-return characteristics.

Also the architecture of banks is changing rapidly in response to the higher pace of technological transformation. Banks operate increasingly as networks to co-ordinate and integrate business elements (services and products) offered externally by the market. This new architecture is to be guided by a revised business model that welds together information and transaction capabilities so as to create exceptional value. Ethical standards are a key feature of this evolving new architecture of banks, while risk management technologies have become a central driver of the evolving architecture, strategy and business models of banks.

Against this backdrop, the paper identifies the longer-term structural changes in banking systems, including increased convergence, the emergence of large financial groups, stronger and more complex links between banks and capital markets, and new forms of relationship-banking. As a result, change and adaptation is taking place within each type of banking system (relationship-based and arm's-length). The paper argues that a new hybrid type of banking system is emerging, with both strong links to capital markets and a renewed emphasis on competency-based relationship banking. In this new type of banking system, called a *relationship-cum-market-based banking*

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system, financial engineering and the integration of products and services from outside suppliers will play an even greater role than before.

The final part assesses prevailing and future business strategies in this new type of banking system. It is concluded that both the financial supermarket model and the traditional bancassurance model need to be revised. The architecture of banks and the underlying business models need to be adjusted so as to achieve greater focus and selectivity. To that end, new business strategies such as unbundling (de-merging), outsourcing, joint ventures and partnerships to run non-core businesses deserve serious consideration. Although the search for greater focus and specialisation has resulted in unbundling (de-mergers) of activities, there is still an important place for merger and acquisition activity in shaping the banking architecture of the future, with an increasing emphasis on cross-border M&As. It is concluded that cost scale economies are more important than economies of scope. Risk diversification is also an important driver of M&As and related changes in banking architecture and business models.

8. Annexes

8.1. Annex A: Statistical framework

The following simple statistical framework was used to analyse risk diversification associated with the following activities:

- Non-life insurance (N)
- Reinsurance (R)
- Life insurance (L)
- Banking (B)

The standard deviation on the (equity) returns (\mathbf{R}) of each (merged) financial institution or activity \mathbf{i} , was used as measure of risk or volatility:

$$\hat{\sigma} = \left[\sum_{i=1}^T (R_i - \bar{R})^2 / (T-1) \right]^{1/2}, i \in \{1, 2, 3, 4\} \quad (1)$$

The potential of risk reduction is analysed here by examining pro-forma combinations of financial activities or entities using simple statistical risk measures. More precisely, the focus is on the question whether diversification benefits from these hypothetical mergers significantly lower the riskiness of the resulting financial groups.

Diversification and marginal risk contribution of the various activities can then be studied as follows. Total revenue of the merged entity (for example, a financial group or conglomerate) \mathbf{m} is:

$$TR_m = \sum_{i=1} TR_i = \sum_{i=1} R_i A_i \quad (2)$$

with A_i assets related to activity \mathbf{i} and R_i the return on A_i . The variance of TR_m is then equal to:

$$\sigma_m^2 = \sum_i VAR(TR_i) + 2 \sum_{i>j} COV(TR_i, TR_j) \quad (3)$$

For the sake of simplicity it is assumed that the key strategic objective of the pro-forma mergers analysed in this study is risk reduction¹²³. It is also

¹²³ Our pro-forma analysis abstracts therefore from possible (dis)economies of scale and scope and other considerations.

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assumed that (equity) returns on these activities are normally and independently distributed¹²⁴. The new financial group can then be described as a weighted average of four different types of activity, with the standard deviation of returns as risk measure.

The standard deviation of the return of this hypothetically constructed financial group (F) can then be written as:

$$\sigma_F = \sqrt{\sum_{i=1}^n w_i^2 \sigma_i^2 + 2 \sum_{i=1}^n \sum_{j<i} w_i w_j \sigma_{ij}} \quad (4)$$

with σ_i the standard deviation of return in sector $i = B, N, L, R$; σ_{ij} the covariance; and w_i the sector-specific weight.

Blommestein and Schich (2005) used this simple framework to examine the risk reduction potential of pro-forma combinations of financial activities by calculating various weighted combinations. The final step was to calculate a global minimum-variance portfolio by solving the following constrained optimisation problem¹²⁵:

$$\min_{w_i} \sigma_F = \sqrt{\sum_{i=1}^n w_i^2 \sigma_i^2 + 2 \sum_{i=1}^n \sum_{j<i} w_i w_j \sigma_{ij}} \quad (5)$$

subject to $\sum_1^4 w_i = 1$.

¹²⁴ There is quite a body of research showing that equity returns are not normally distributed. Also the data used for this study violate this statistical assumption. Since the return series of financial assets are fat-tailed distributed, assuming a normal distribution may strongly distort the estimates of downside risks. Accordingly, in follow-up work this assumption will be replaced by a fat tail distribution. The results in Table 7 are already based on extreme value theory, taking into account that returns are fat tailed.

¹²⁵ Zivot (2003) and Zivot and Wang (2002).

8.2. Annex B: Data

The following institutions are included in the indices used in the study of the German banking market (**table B1**).

Table B1: Financial institutions included in the indices

Non-Life Insurance:		Banks:	
DBV-WINTERTHUR HOLDING	24%	BADEN-WUERTT.BK.	1%
GERLING	24%	BANKGESELLSCHAFT BERLIN	3%
KOELN.VERWALT.GESELL.	18%	BAYER.HYPO-UND-VBK. (HVB)	13%
WUESTENROT & WUERTT.	34%	BERLINER-HAN.HYPBK.	2%
Life insurance:		COMMERZBANK	10%
ALLIANZ LEBENS.	77%	DEUTSCHE BANK	34%
AXA COLONIA LED.REGD	5%	DT.HYPBK.HANN.BL.	0%
BERLINER LEBEN	5%	DEUTSCHE POSTBANK	6%
NUERNBERGER BET. REGD.	13%	DEXIA HYPOTHEKENBANK	16%
Reinsurance:		DVB BANK	0%
HANNOVER RUCK.	14%	EUROHYPO	8%
KOELN.RUCK.	1%	HSBC TRINKAUS & BURKHD.	2%
KOELN.RUCK.GESELL. REGD.	5%	IKB DT.INDSTRBK.	2%
MUNCH.RUCK.REGD.	79%	OLDENBURGER LB.	1%
		WUERTT.HYPOBANK	1%

Source: Datastream

8.3. Annex C: Covariance and correlation results

Table C1 confirms the results from **Table 5** that from the perspective of German banks, non-life insurance activities lead to potentially larger diversification gains than those associated with life insurance.

Table C1: Germany: Sectoral Correlations (upper triangle) and covariances (diagonal and lower triangle), 1980–2005 (June)

	Insurance	of which:				Life Ins.	Banks	Specialty finance	Real Estate	Financials (total)	Market (total)
		Brokers	Non-life	Other	Reins.						
Insurance	0.00021	0.27	0.25	0.96	0.86	0.28	0.71	0.42	0.22	0.92	0.81
Brokers	0.00008	0.00036	0.09	0.23	0.19	0.14	0.27	0.21	0.16	0.30	0.34
Non-life	0.00004	0.00002	0.00013	0.20	0.13	0.17	0.18	0.02	0.04	0.24	0.23
Other	0.00023	0.00007	0.00004	0.00027	0.70	0.27	0.69	0.40	0.20	0.89	0.78
Reins.	0.00025	0.00007	0.00002	0.00023	0.00038	0.19	0.61	0.38	0.18	0.80	0.69
Life Ins.	0.00007	0.00004	0.00003	0.00007	0.00006	0.00028	0.29	0.14	0.10	0.40	0.33
Banks	0.00013	0.00007	0.00003	0.00015	0.00016	0.00006	0.00017	0.42	0.26	0.91	0.86
Specialty finance	0.00011	0.00006	0.00000	0.00012	0.00013	0.00003	0.00010	0.00021	0.10	0.47	0.47
Real Estate	0.00007	0.00006	0.00001	0.00007	0.00007	0.00003	0.00007	0.00002	0.00035	0.28	0.28
Financials (total)	0.00016	0.00007	0.00003	0.00018	0.00020	0.00008	0.00014	0.00010	0.00007	0.00015	0.91
Market (total)	0.00013	0.00007	0.00003	0.00014	0.00015	0.00006	0.00012	0.00009	0.00006	0.00012	0.00011

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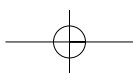
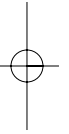
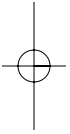
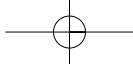
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