

**Financial integration across borders and across sectors:  
implications for regulatory structures**

Ingo Walter

June, 2002

Leonard N. Stern School of Business, 44 West 4<sup>th</sup> Street, New York, NY

**Financial integration across borders and across sectors:  
implications for regulatory structures**

Ingo Walter

**Abstract**

This paper considers the generic processes and linkages that comprise financial intermediation – the basic ‘financial hydraulics’ that ultimately drive efficiency and innovation in the financial system and its impact on real-sector resource allocation and economic growth. Maximum economic welfare demands a high-performance financial system. What does this actually mean? It documents some of the structural changes that have occurred in both national and global financial systems, and suggests how the microeconomics of financial intermediation work. These can have an enormous impact on the industrial structure of the financial services industry and on individual firms. Sequentially, financial channels that exhibit greater static and dynamic efficiency have supplanted less efficient ones. Competitive distortions can retard this process, but they usually extract significant economic costs and at the same time divert financial flows into other venues, either domestically or elsewhere. The paper also examines the consequences of this process in terms of financial sector reconfiguration, both within and between the four major segments of the industry (commercial banking, securities and investment banking, insurance, and asset management) as well as within and between national financial systems. Finally, the paper superimposes key regulatory overlays onto the basic economics and facts of reconfiguration in financial intermediation. This is a ‘special’ industry, due both to the imbedded systemic risks and its fiduciary nature. Balancing financial efficiency against stability and fairness is not easy. The economics of financial intermediation are highly regulation-sensitive, so small changes in regulation can create important changes in markets. Regulators inevitably make some mistakes, and regulatory mandates are unusually contentious and vulnerable to entrenched economic interests. This is also a discussion of the linkages between structural change in financial intermediation and supervisory and regulatory functions, including some comparisons between US and European legacies and prospects.

# **Financial integration across borders and across sectors: implications for regulatory structures**

**Ingo Walter**

## **2.1 Introduction**

Few industries have encountered as much 'strategic turbulence' in recent years as the financial services sector. In response to far-reaching regulatory and technological change, together with important shifts in client behaviour and the de facto globalisation of specific financial functions, the organisational structure of the industry has been profoundly displaced and there remains a great deal of uncertainty about the nature of any future equilibrium in the industry's contours.

Section 2.2 of this paper considers the generic processes and linkages that comprise financial intermediation – the basic 'financial hydraulics' that ultimately drive efficiency and innovation in the financial system and its impact on real-sector resource allocation and economic growth. Maximum economic welfare demands a high-performance financial system. What does this actually mean?

Section 2.3 documents some of the structural changes that have occurred in both national and global financial systems, and suggests how the microeconomics of financial intermediation work. These can have an enormous impact on the industrial structure of the financial services industry and on individual firms. Sequentially, financial channels that exhibit greater static and dynamic efficiency have supplanted less efficient ones. Competitive distortions can retard this process, but they usually extract significant economic costs and at the same time divert financial flows into other venues, either domestically or elsewhere.

Section 2.4 examines the consequences of this process in terms of financial sector reconfiguration, both within and between the four major segments of the industry (commercial banking, securities and investment banking, insurance, and asset management) as well as within

and between national financial systems.

Section 2.5 of the paper superimposes key regulatory overlays onto the basic economics and facts of reconfiguration in financial intermediation. This is a 'special' industry, due both to the imbedded systemic risks and its fiduciary nature. Balancing financial efficiency against stability and fairness is not easy. The economics of financial intermediation are highly regulation-sensitive, so small changes in regulation can create important changes in markets. Regulators inevitably make some mistakes, and regulatory mandates are unusually contentious and vulnerable to entrenched economic interests.

The final section of the paper considers the linkages between structural change in financial intermediation and supervisory and regulatory functions, including some comparisons between US and European legacies and prospects.

## **2.2 A stylized process of financial intermediation**

The central component of any model of a modern financial system is the nature of the conduits through which the financial assets of the ultimate savers flow -through to the liabilities of the ultimate users of finance, both within and between national economies. This involves alternative and competing modes of financial intermediation, or 'contracting', between counterparties in financial transactions.

A guide to thinking about financial contracting and the role of financial institutions and markets is summarised in Exhibit 1.<sup>1</sup> The diagram depicts the financial process (flow-of-funds) among the different sectors of the economy in terms of underlying environmental and regulatory determinants or drivers as well as the generic advantages needed to profit from three primary linkages:

1. Fully intermediated financial flows. Savings (the ultimate sources of funds in financial systems) may be held in the form of deposits or alternative types of claims issued by commercial banks, savings organisations, insurance companies or other types of financial

institutions that finance themselves by placing their liabilities directly with the general public. Financial institutions ultimately use these funds to purchase assets issued by non-financial entities such as households, firms and governments.

2. Investment banking and securitized intermediation. Savings may be allocated directly or indirectly via fiduciaries and collective investment vehicles, to the purchase of securities publicly issued and sold by various public- and private- sector organisations in the domestic and international financial markets.
3. Direct-connect mechanisms between ultimate borrowers and lenders. Savings surpluses may be allocated to borrowers through various kinds of direct-sale mechanisms, such as private placements, usually involving fiduciaries as intermediaries.

#### EXHIBIT 1

Ultimate users of funds comprise the same three segments of the economy — the household or consumer sector, the business sector and the government sector.

1. Consumers may finance purchases by means of personal loans from banks or by loans secured by purchased assets (hire-purchase or installment loans). These may appear on the asset side of the balance sheets of credit institutions for the duration of the respective loan contracts on a revolving basis, or they may be sold off into the financial market in the form various kinds of securities backed by consumer credit receivables.
2. Corporations may borrow from banks in the form of unsecured or asset-backed straight or revolving credit facilities and/or may sell debt obligations (for example commercial paper, receivables financing, fixed-income securities of various types) or equities directly into the financial market.
3. Governments may likewise borrow from credit institutions (sovereign borrowing) or issue securities directly.

Borrowers such as corporations and governments also have the possibility of privately issuing and placing their obligations with institutional investors, thereby circumventing both credit institutions and the public debt and equity markets. Consumer debt can also be repackaged as asset-backed securities and sold privately to institutional investors.

In the first mode of financial contracting in Exhibit 1, depositors buy the 'secondary' financial claims or liabilities issued by credit institutions, and benefit from liquidity, convenience, and safety through the ability of financial institutions to diversify risk and improve credit quality by means of professional management and monitoring of their holdings of primary financial claims (both debt and equity). Savers can choose from among a set of standardized contracts and receive payments services and interest.

In the second mode of financial intermediation in Exhibit 1, investors can select their own portfolios of financial assets directly from among the publicly issued debt and equity instruments on offer. This may provide a broader range of options than standardized bank contracts, and permit the larger investors to tailor portfolios more closely to their objectives while still achieving acceptable liquidity through rapid and cheap execution of trades – aided by linkages with banks and other financial institutions that are part of the domestic payments mechanism. Investors may also choose to have their portfolios professionally managed, for a fee, through various types of mutual funds and pension funds – designated in Exhibit 1 as collective investment vehicles.

In the third mode of financial intermediation, institutional investors buy large blocks of privately issued securities. In doing so, they often face a liquidity penalty – due to the absence or limited availability of a liquid secondary market – for which they are rewarded by a higher yield. On the other hand, directly placed securities can be specifically 'tailored' to more closely match issuer and investor requirements than can publicly issued securities. Market and regulatory developments (such as SEC Rule 144A in the US) have added to the liquidity of some direct-placement markets.

Value to ultimate savers and investors, inherent in the financial processes described here, accrues in the form of a combination of yield, safety and liquidity. Value to ultimate users of funds accrues in the form of a combination of financing cost, transactions cost, flexibility and liquidity. This

value can be enhanced through credit backstops, guarantees and derivative instruments such as forward rate agreements, caps, collars, futures and options. Furthermore, markets can be linked functionally and geographically, both domestically and internationally. Functional linkages permit bank receivables, for example, to be repackaged and sold to nonbank securities investors. Privately placed securities, once they have been seasoned, may be able to be sold in public markets. Geographic linkages make it possible for savers and issuers to gain incremental benefits in foreign and offshore markets, thereby enhancing liquidity and yield or reducing transaction costs.

### **Static and dynamic efficiency characteristics of financial systems**

Static efficiency properties of the three alternative financial processes can be measured by the all-in, weighted average spread (differential) between rates of return provided to ultimate savers and the cost of funds to users. This spread is a proxy for the total cost of using a particular type of financial process, and is reflected in the monetary value of resources consumed in the course of financial intermediation. In particular, it reflects direct costs of financial intermediation (operating and administrative costs, cost of capital, and so on). It also reflects losses incurred in the financial process, as well as any excess profits earned and liquidity premiums. Financial processes that are considered 'statically inefficient' are usually characterised by high all-in margins due to high overhead costs, high losses, concentrated markets and barriers to entry, etc.

Dynamic efficiency is characterised by high rates of financial product and process innovation through time.

1. Product innovations usually involve creation of new financial instruments along with the ability to replicate certain financial instruments by bundling or rebundling existing ones (synthetics). There are also new approaches to contract pricing, new investment techniques, and other innovations that fall under this rubric.
2. Process innovations include contract design and methods of trading, clearance and settlement, custody, techniques for efficient margin calculation, and so on. Successful product and process innovation broadens the menu of financial services available to

ultimate issuers, ultimate savers, or other participants in the various financial channels described in Exhibit 1.

It is against a background of continuous pressure for static and dynamic efficiency that financial markets and institutions have evolved and converged. Global financial markets for foreign exchange, debt instruments and to a lesser extent equity have developed various degrees of 'seamlessness', and it is arguable that the most advanced of the world's financial markets are approaching a theoretical, 'complete' optimum where there are sufficient financial instruments and markets, and combinations thereof, to span the whole state-space of risk and return outcomes. Financial systems that are deemed inefficient or incomplete tend to be characterised by a limited range of financial services and obsolescent financial processes.

Exhibit 2 gives some indication of recent technological change in financial intermediation, particularly leveraging the properties of the Internet. Although not all of these initiatives have been successful or will survive, some have enhanced financial intermediation efficiencies. Internet applications have already dramatically cut information and transaction costs for both retail and wholesale end-users of the financial system as well as for financial intermediaries themselves. The examples of on-line banking, insurance, retail brokerage given in Exhibit 2 are well known and continue to evolve and change the nature of the process, sometimes turning prevailing business models on their heads. For example, financial intermediaries have traditionally charged for transactions and provided advice almost for free, but increasingly are forced to provide transactions services almost for free and to charge for advice. The new models are often far more challenging for market participants.

## EXHIBIT 2

At the same time, on-line distribution of financial instruments such as commercial paper, equities and bonds in primary capital markets not only cuts the cost of market access but also improves and deepens the distribution and bookbuilding process – including providing issuers with information on



the investor-base. And as Exhibit 1 suggests, it is only one further step to cutting out the intermediary altogether by putting the issuer and the investor or fiduciary into direct electronic contact. The same is true in secondary markets, as shown in Exhibit 2, with an increasing array of alliance-based competitive bidding utilities (FXall) and reverse auctions (Currenex.com) in foreign exchange and other financial instruments as well as inter-dealer brokerage, cross-matching and electronic communications networks (ECNs). When all is said and done, Internet-based technology overlay is likely to have turbocharged the cross-penetration story depicted in Exhibit 1.

A further development consists of automated end-user platforms such as CFOWeb.com for corporate treasury operations and Quicken 2001 for households, with real-time downloads of financial positions, risk profiles, market information, research, and so on.. By allowing end-users to 'cross-buy' financial services from best-in-class vendors, such utilities could upset conventional thinking that focuses on 'cross-selling', notably at the retail end of the end-user spectrum. If this is correct, financial firms that are following Allfinanz or bancassurance strategies may end up trapped in the wrong business model, as open-architecture approaches facilitating easy access to best-in-class suppliers begin to gain market share.

Both static and dynamic efficiency in financial intermediation are of obvious importance from the standpoint of national and global resource allocation. That is, since financial services can be viewed as 'inputs' to real economic processes, the level of national output and income – as well as its rate of economic growth – are directly or indirectly affected. A 'retarded' financial services sector can be a major impediment to a nation's overall economic performance. Financial-system retardation represents a burden on the final consumers of financial services and potentially reduces the level of private and social welfare. It also represents a burden on producers, by raising their cost of capital and eroding their competitive performance in domestic and global markets. These inefficiencies ultimately distort the allocation of labour as well as capital.

### **2.3 The facts – shifts in intermediary market shares**

Developments over the past several decades in intermediation processes and institutional design both across time and geography are striking. In the United States 'commercial banks' – institutions that accept deposits from the public and make commercial loans – have seen their market share of domestic financial flows between end-users of the financial system decline from about 75 per cent in the 1950s to under 25 per cent today. In Europe the change has been much less dramatic, and the share of financial flows running through the balance sheets of banks continues to be well over 60 per cent – but declining nonetheless. And in Japan banks continue to control in excess of 70 per cent of financial intermediation flows. Most emerging market countries cluster at the highly intermediated end of the spectrum, but in many of these economies there is also factual evidence of declining market shares of traditional banking intermediaries. Classic banking functionality, in short, has been in long-term decline more or less worldwide.

Where has all the money gone? Disintermediation as well as financial innovation and expanding global linkages have redirected financial flows through the securities markets. Exhibit 4 shows developments in the United States from 1970 to 2000, highlighting the extent of commercial bank market share losses and institutional investor gains. While this may be an extreme case, even in highly intermediated financial systems like Germany (Exhibit 5) direct equity holdings and managed funds have increased from 9.6 per cent to 22.7 per cent in just the 1990 - 2000 period.

EXHIBIT 4

EXHIBIT 5

Ultimate savers increasingly use the fixed-income and equity markets directly and through fiduciaries which, through vastly improved technology, are able to provide substantially the same functionality as classic banking relationships – immediate access to liquidity, transparency, safety,

and so on – coupled to a higher rate of return. The one thing they cannot guarantee is settlement at par, which in the case of transactions balances (for example money market mutual funds) is mitigated by portfolio constraints mandating high-quality, short maturity financial instruments. Ultimate users of funds have benefited from enhanced access to financial markets across a broad spectrum of maturity and credit quality using conventional and structured financial instruments. Although market access and financing cost normally depend on the current state of the market, credit and liquidity backstops can be easily provided.

At the same time, a broad spectrum of derivatives overlays the markets, making it possible to tailor financial products to the needs of end-users with increasing granularity, further expanding the availability and reducing the cost of financing on the one hand and promoting portfolio optimization on the other. And as the end-users have themselves been forced to become more performance-oriented in the presence of much greater transparency and competitive pressures, it has become increasingly difficult to justify departures from highly disciplined financial behaviour on the part of corporations, public authorities and institutional investors.

In the process, two important and related differences are encountered in this generic financial-flow transformation. Intermediation shifts in the first place, from book-value to market-value accounting and in the second place from more intensively regulated to less intensively regulated channels, generally requiring less oversight and less capital. Both have clear implications for the efficiency properties of financial systems and for their transparency, safety and soundness. Regulatory focus in this context has migrated from institutions to markets.

#### **2.4 Consequences for institutional competitive advantage**

The basic microeconomics of financial intermediation have, to a significant extent, been reflected in the process of financial sector reconfiguration summarised in Exhibit 6.

EXHIBIT 6

In retail financial services, extensive banking overcapacity in some countries has led to substantial consolidation – often involving M&A activity. Excess retail production and distribution capacity has been slimmed-down in ways that usually releases redundant labour and capital. In some cases this process is retarded by large-scale involvement of public-sector institutions and cooperatives that operate under less rigorous financial discipline. Also at the retail level, commercial banking activity has been linked strategically to retail brokerage, retail insurance (especially life insurance) and retail asset management through mutual funds, retirement products and private-client relationships. Sometimes this linkage process has occurred selectively (for example Lloyds TSB) and sometimes using simultaneous multi-links coupled to aggressive cross-selling efforts (for example Citigroup). At the same time, relatively small and focused firms have sometimes continued to prosper in each of the retail businesses, especially where they have been able to provide superior service or client proximity while taking advantage of outsourcing and strategic alliances where appropriate.

In wholesale financial services similar links have emerged. Wholesale commercial banking activities such as syndicated lending and project financing has often been shifted toward a greater investment banking focus, while investment banking firms have placed growing emphasis on developing institutional asset management businesses in part to benefit from vertical integration and in part to gain some degree of stability in a notoriously volatile industry.<sup>2</sup>

Exhibit 7 shows the global volume of financial services restructuring through merger and acquisitions activity from 1986 through 2000 – roughly two-thirds of which occurred in the banking sector, one quarter in insurance and the remainder in asset management and investment banking. Exhibit 8 shows the quarterly M&A dealflow during 1997-2000, by value, involving European financial services firms as either buyers or sellers, or both, and breaks-out some of the larger transactions during this period.

EXHIBIT 7

EXHIBIT 8

Exhibit 9 Indicates that the vast bulk of this activity occurred on an in-sector basis. Worldwide, 78 per cent of the dealflow (by value) was in-sector – 85 per cent in the US (where line-of-business restrictions existed for most of the period) and 76 per cent in Europe (where there were no such barriers). So cross-sector M&A deals, including banking-insurance, were a small part of the picture – only 11.4 per cent even in Europe, home of bank assurance.

#### EXHIBIT 9

In addition to being largely in-sector, restructuring via M&A transactions was also largely domestic. Worldwide in commercial banking, less than 23 per cent (by value) was cross border. Only 12.7 per cent and 20.2 per cent of the US and European banking dealflow, respectively, was cross-border (mostly European banks buying US banks). Cross-border intra-European banking deals amounted to 25.8 per cent of the European total. The share of cross-border activity in the insurance sector has been roughly twice that of banking, which possibly suggests somewhat different economic pressures at work. With a few exceptions like HSBC and Citigroup globally, and Fortis, Nordea, ABN AMRO, ING, BSCH and BBVA as parts of regional or interregional strategies, the aggressive development of cross-border platforms seems to be the exception in the banking sector. In insurance, on the other hand, global initiatives by firms like AXA, AIG, Zurich, AEGON, ING, Allianz, Generali and GE Capital seem to be a more important part of the M&A picture.

Industrial economics suggests that structural forms in any sector, or between sectors, should follow the dictates of institutional comparative advantage. If there are significant economies of scale that can be exploited, it will be reflected in firm size. If there are significant economies of scope, either with respect to costs or revenues (cross-selling), then that will be reflected in the range of activities in which the dominant firms are engaged. If important linkages can be exploited across geographies or client segments, then this too will be reflected in the breadth and geographic scope of the most successful firms.

It seems clear, from a structural perspective, that a broad array of financial services firms

may perform one or more of the roles identified in Exhibit 1 – commercial banks, savings banks, postal savings institutions, savings cooperatives, credit unions, securities firms (full-service firms and various kinds of specialists), mutual funds, insurance companies, finance companies, finance subsidiaries of industrial companies, and others. Members of each strategic group compete with each other, as well as with members of other strategic groups. Assuming it is allowed to do so, each organisation elects to operate in one or more of the financial channels according to its own competitive advantages. Institutional evolution therefore depends on how these comparative advantages evolve, and whether regulation permits them to drive institutional structure. In some countries commercial banks, for example, have had to 'go with the flow' and develop competitive asset management, origination, advisory, trading and risk management capabilities under constant pressure from other banks and, most intensively, from other types of financial services firms.

Take the US as a case in point. With financial intermediation distorted by regulation - notably the Glass-Steagall provisions of the Banking Act of 1933 - banks half a century ago dominated classic banking functions, broker-dealers dominated capital market services and insurance companies dominated most of the generic risk management functions, as shown in Exhibit 10. Cross-penetration between different types of financial intermediaries existed mainly in savings products.

#### EXHIBIT 10

Some fifty years later this functional segmentation had changed almost beyond recognition despite the fact that full de jure deregulation was not implemented until the end of the period with the Gramm-Leach-Bliley Act of 1999. Exhibit 11 and 12 show a virtual doubling of strategic groups competing for the various financial intermediation functions. Today there is vigorous cross-penetration among them in the US. Most financial services can be obtained in one form or another from virtually every strategic group, each of which is, in turn, involved in a broad array of financial intermediation services. If cross-competition among strategic groups promotes both static and

dynamic efficiencies, then the evolutionary path of the US financial structure probably served macroeconomic objectives – particularly growth and economic restructuring – very well indeed. And line-of-business limits in force since 1933 have probably contributed, as an unintended consequence, to a much more heterogeneous financial system – certainly more heterogeneous than existed in the US of the 1920s or in most other countries today.<sup>3</sup> This structural evolution has been accompanied in recent years by higher concentration ratios in various types of financial services - although not in retail banking, where concentration ratios have actually fallen. None of these concentrations are yet troublesome in terms of anti-trust concerns, and markets remain vigorously competitive.

EXHIBIT 11

EXHIBIT 12

A similar coverage-analysis for Europe is not particularly credible because of the wide inter-country variations in financial structure. One common thread however, given the long history of universal banking, is that banks dominate most intermediation functions in many European countries, with the exception of insurance. And given European bancassurance initiatives, some observers think a broad-gauge banking-insurance convergence is likely. Except for the penetration of continental Europe by UK and US specialists, many of the relatively narrowly focused firms seem to have found themselves sooner or later acquired by major banking groups. Exhibit 15 may be a reasonable approximation of the continental European financial structure, with substantially less 'density' of functional coverage by specific strategic groups than in the US and correspondingly greater dominance of major financial firms that include banking as a core business.

EXHIBIT 15

The structural evolution of national and regional financial systems seems to have an impact on global market-share patterns. With about 28.9 per cent of global GDP, US banking assets and syndicated bank loans are well underweight (they are overweight in Europe and Japan), whereas both bond and stock market capitalisations, capital market new-issues and fiduciary assets under management are overweight (they are underweight in Europe and Japan). One result is that US financial firms have come to dominate various intermediation roles in the financial markets – over half of global asset management mandates, over 77 per cent of lead manager positions in wholesale lending, two-thirds of bookrunning mandates in global debt and equity originations, and almost 80 per cent of advisory mandates (by value of deal) in completed merger and acquisitions transactions. Indeed, it is estimated that in 2000 US-based investment banks captured about 70 per cent of the fee-income on European capital markets and corporate finance transactions (see Smith and Walter, 2000a).

Why? The reasons include the size of the US domestic financial market (accounting for roughly two-thirds of global capital-raising and M&A transactions in recent years), early deregulation of markets (but not of institutions) dating back to the mid-1970s, and performance pressure bearing on institutional investors, as well as corporate and public-sector clients, leading to an undermining of client loyalty in favour of best price and best execution. Perhaps as an unintended consequence of separated banking since 1933, institutions dominating disintermediated finance – the American full-service investment banks – evolved from close-knit partnerships with unlimited liability to large securities firms under intense shareholder pressure to manage their risks well and extract maximum productivity from their available capital. At the same time it was clear that, unlike the major commercial banks, regulatory bailouts of investment banks in case of serious trouble were highly unlikely. Indeed, major firms like Kidder Peabody and Drexel Burnham (at the time the seventh-largest US financial institution in terms of balance sheet size) were left to die by the regulators. Subsequently, the capital-intensity and economic dynamics of the investment banking business has



caused most of the smaller and medium-size independent firms in both the US, the UK and elsewhere (for example Paribas in France and MeesPierson in the Netherlands) to disappear into larger banking institutions.

It is interesting to speculate what the European matrix in Exhibit 15 will look like in ten or twenty years' time. Some argue that the impact of size and scope is so powerful that the financial industry will be dominated by large complex financial institutions – not only for Europe but also for other markets. Others argue that a rich array of players, stretching across a broad spectrum of strategic groups, will serve financial systems better than a strategic monoculture based on massive universal banking organisations. Some argue that the disappearance of small community banks, independent insurance companies in both the life and nonlife sectors, and a broad array of financial specialists is probably not in the public interest especially if, at the end of the day, there are serious anti-trust concerns in this key sector of the economy. And as suggested in Exhibit 19, the disappearance of competitors can have significant transactions cost and liquidity consequences for financial markets – in this case non-investment grade securities.

#### EXHIBIT 19

At least so far, the most valuable financial services franchises in the United States and Europe in terms of market capitalisation seem far removed from a financial-intermediation monoculture. In fact, each presents a rich mixture of banks, asset managers, insurance companies and specialised players. How the institutional structure of the financial services sector will evolve is anybody's guess. Those who claim to know often end up being wrong. Influential consultants sometimes convince multiple clients to do the same thing at the same time, and this spike in strategic correlation can contribute to the wrongness of their vision. What is clear is that the underlying

economics of the industry's microstructure depicted in Exhibit 1 will ultimately prevail, and finance will flow along conduits that are in the best interests of the end-users of the financial system. The firms that comprise the financial services industry will have to adapt and readapt to this dynamic in ways that profitably sustain their raison d'être.

## **2.5 The regulatory overlay**

The implied complexity of this story for financial regulation should be abundantly clear. Markets and institutions tend, perhaps more often than not, to run ahead of the regulators. Regulatory initiatives sometimes have consequences that were not and perhaps could not have been foreseen. The regulatory dialectic in the financial services sector is both sophisticated and complex, and often confronts both heavily entrenched and politically well connected interests (as well as some of the brightest minds in business). The more complex the industry – perhaps most dramatically in the case of massive, global financial services conglomerates where comprehensive regulatory insight is implausible – the greater the challenge to sensible regulation. Here we shall limit ourselves to some of the basic regulatory parameters that are consistent with the financial services industry dynamics presented earlier (Cumming and Hirtle, 2001).

We presuppose that the financial services industry worldwide has been, and will continue to be, subject to significant public-authority regulation and supervision due to the fiduciary nature of the business, the key role of financial systems in driving economic performance, the potential for financial fraud, and the possibility of serious social costs associated with financial failure. Indeed, we know from experience that even small changes in financial regulation can bring about large changes in financial system activity. We also know that, to the extent that information flows among counterparties in financial activities are imperfect, regulation can significantly improve the operation of financial systems – the greater the information asymmetries and transaction-cost inefficiencies that exist, the greater is the value of regulation quite apart from its benefits in terms of safety and soundness.<sup>4</sup> And it sometimes seems that the more the financial intermediaries complain, the better

the regulators are doing their jobs.

Edward Kane is one of the pioneers in thinking about financial regulation and supervision as imposing a set of 'taxes' and 'subsidies' on the operations of financial firms exposed to them (see Kane, 1987). On the one hand, the imposition of reserve requirements, capital adequacy rules and certain financial disclosure requirements can be viewed as imposing 'taxes' on a financial firm's activities in the sense that they increase intermediation costs. On the other hand, regulator-supplied deposit insurance, information production and dissemination, and lender-of-last resort facilities serve to stabilise financial markets, reduce information and transaction inefficiencies, improve liquidity and lower the risk of systemic failure – thereby improving the process of financial intermediation. They can therefore be viewed as implicit 'subsidies' provided by taxpayers.

The difference between these 'tax' and 'subsidy' elements of regulation can be viewed as the 'net regulatory burden' (NRB) faced by particular types of financial firms in any given jurisdiction. All else equal, financial flows tend to migrate toward those regulatory domains where NRB is lowest. NRB differences can induce financial-intermediation migration when the savings realised exceed the transaction, communication, information and other economic costs of migrating. Indeed, it has been argued that a significant part of the financial disintermediation discussed in Section 2.2 of this paper – and its impact on various types of financial firms – has been due to differences in NRB, which is arguably highest in the case of commercial banks. Competition triggers a dynamic interplay between demanders and suppliers of financial services, as financial firms seek to reduce their NRB and increase their profitability. If they can do so at acceptable cost, they will actively seek product innovations and new avenues that avoid cumbersome and costly regulations by shifting them either functionally or geographically.

### **Regulatory Tradeoffs**

The right side of Exhibit 21 identifies the policy tradeoffs that invariably confront those charged with designing and implementing a properly structured financial system. On the one hand, they must strive to achieve maximum static and dynamic efficiency with respect to the financial system as a

whole, as defined earlier, as well as promote the competitive viability of the financial industry. On the other hand, they must safeguard the stability of institutions and the financial system, in addition to helping to assure what is considered 'acceptable' market conduct – including the politically sensitive implied social contract between financial institutions and unsophisticated clients. The first problem, safety-net design, is beset with difficulties such as moral hazard and adverse selection, and becomes especially problematic when products and activities shade into one-another, when on- and off-balance sheet activities are involved, and when domestic and foreign business is conducted by financial firms for which the regulator is responsible. The second problem, market conduct, is no less difficult when end-users of the system range across a broad spectrum of financial sophistication from mass-market retail clients to highly sophisticated trading counterparties.

#### EXHIBIT 21

In going about their business, regulators continuously face the possibility that 'inadequate' regulation will result in costly failures, on the one hand, and on the other hand the possibility that 'overregulation' will create opportunity costs in the form of financial efficiencies not achieved, or in the relocation of firms and financial transactions to other regulatory regimes offering a lower NRB. Since any improvements in financial stability can only be measured in terms of damage that did not occur and costs that were successfully avoided, the argumentation surrounding financial regulation is invariably based on 'what if' hypotheticals. In effect, regulators are constantly compelled to rethink the balance between financial efficiency and creativity on the one hand, and safety, stability and suitable market conduct in the financial system on the other. They face the daunting task of designing an 'optimum' regulatory and supervisory structure that provides the desired degree of stability at minimum cost to efficiency, innovation and competitiveness – and to do so in a way that effectively aligns such policies among regulatory authorities functionally and internationally and avoids 'fault lines' across regulatory regimes. There are no easy answers. There are only 'better' and 'worse' solutions as perceived by the constituents to whom the regulators are ultimately

accountable.

The principal options that regulators have at their disposal range from 'fitness and properness' criteria under which a financial institution may be established, continue to operate or be shut-down – to line-of-business regulation as to what types business financial institutions may engage in, adequacy of capital and liquidity, limits on various types of exposures, and the like, as well as policies governing marking-to-market of assets and liabilities. And as noted, regulatory initiatives can create financial market distortions of their own, which become especially problematic when financial products and processes evolve rapidly and the regulator can easily get one or two steps behind.

A third element involves the regulatory machinery itself, ranging from reliance on self-control on the part of boards and senior managements of financial firms concerned with protecting the value of their franchises, through financial services industry self-regulation via Self Regulatory Organisations (SROs), to public oversight by regulators with teeth - including civil suits and criminal prosecution.

Self-regulation remains controversial, since financial firms continue to suffer from incidents of business losses and misconduct - despite the often devastating effects on the value of their franchises. Management responds with expensive compliance infrastructures. But nothing is perfect, and serious problems continue to slip through the cracks. And 'ethics' programs intended to assure appropriate professional conduct are often pursued with lack of seriousness, at worst creating a general sense of cynicism. People have to be convinced that a good defence is as important as a good offence in determining sustainable competitive success. This is something that is extraordinarily difficult to put into practice in a highly competitive environment and requires an unusual degree of senior management leadership and commitment (see Smith and Walter, 1997).

Control through SROs is likewise subject to dispute. Private-sector entities that have been certified as part of the regulatory infrastructure in the US, for example, have repeatedly encountered

problems. For example, in 1996 one of the key US SROs, the National Association of Security Dealers, and some of its member firms were assessed heavy monetary penalties in connection with rigging OTC equity markets. A vigorous attempt to refute empirical evidence of improprieties eventually yielded to major changes in regulatory and market practices. Another example: In 2001 Moody's pleaded guilty to criminal charges of obstruction of justice in connection with an SEC investigation of the firm's unsolicited ratings practices. One has to wonder how such management lapses in highly reputation-sensitive institutions could happen. Other well-known examples occurred in the United Kingdom, which relied heavily on the SRO approach. In 1994 the self-regulatory body governing pension funds (Investment Management Regulatory Organisation) failed to catch the disappearance of pension assets from Robert Maxwell's Mirror Group Newspapers, and the Personal Investment Authority (PIA) for years failed to act against deceptive insurance sales practices at the retail level. In the Maxwell case, a 2001 report of the Department of Trade and Industry (DTI) described the conduct of the firms involved as beset with 'cliquishness, greed and amateurism.' Nor did the Amsterdam Stock Exchange cover itself with glory in the disastrous 2000 World Online IPO, although it evidently was able to avert the most egregious aspects of market misconduct.<sup>5</sup>

Inevitable in self-regulation are charges of the fox watching the henhouse. As in the Maxwell case, the City of London has come in for a good deal of criticism for the 'easygoing ways' that have done so much to contribute to its competitive success in the global marketplace.<sup>6</sup> But reliance on public-oversight for financial regulation has its own problems, since virtually any regulatory initiative is likely to run confront powerful vested interests that would like nothing better than to bend the rules in their favour (Kane, 1987). The political manipulation of the savings and loan regulators in the US during the 1980s is a classic example, creating massive incremental losses for taxpayers. Even the judicial process that is supposed to arbitrate or adjudicate matters of regulatory policy may not always be entirely free of political influence or popular opinion.

Just as there are tradeoffs implicit in Exhibits 21-23 between financial system performance and stability, there are also tradeoffs between regulation and supervision. Some regulatory options

(for example capital adequacy rules) are fairly easy to supervise but full of distortive potential due to their broad-gauge nature (even with the higher level of granularity proposed in the revised Basle accords). Others (for example fitness and properness criteria) may be highly cost-effective but devilishly difficult to supervise. Finally there are tradeoffs between supervision and performance, with some supervisory techniques far more costly to comply with than others. Regulators must try to optimize across this three-dimensional set of tradeoffs under conditions of rapid market and industry change, blurred institutional and activity demarcations, and functional as well as international regulatory fault-lines.

## **2.6 The American regulatory landscape – any lessons for Europe?**

Some have argued that the evolution of the financial system in large single-currency areas may be best examined in the US context (despite the peculiarities that have prevailed in that environment) and that perhaps some useful lessons can be drawn as the evolution of European financial integration follows some of the same patterns. If the financial intermediation dynamics and their institutional consequences are in fact generic, as Sections 2.2 and 2.3 suggest, then there may be some merit in this view.

A first observation from the US experience is that, on balance, commercial banks clearly carry a net regulatory burden that, in terms of the actual requirements and costs of compliance, has been vastly greater than that which applies to the securities industry and other nonbank intermediaries. This has arguably had much to do with the evolution of the country's financial structure, generally to the detriment of commercial banking. Institutional regulation of nonbank intermediaries is relatively light, but regulation of business conduct is relatively heavy.

For example, when Congress passed the Securities Act of 1933 it focused on 'truth in new issues', requiring prospectuses and creating underwriting liabilities to be shared by both companies and their investment bankers. It then passed the Securities Act of 1934, which set up the Securities and Exchange Commission (SEC) and focused on the conduct of secondary markets. Later on, in

the 1960s, it passed the Securities Investor Protection Act, which provided for a guarantee fund (paid-in by the securities industry and supported by a line of credit from the US Treasury) to protect investors who maintain brokerage accounts from losses associated with the failure of the securities firms involved. None of these measures, however, provided for the government to guarantee deposits with securities dealers, nor did it in any way guarantee investment results. So there was less need to get 'inside' the securities firms – the taxpayer was not at risk. Where the taxpayers were at risk, in commercial banking and savings institutions, regulation was much more onerous and compliance much more costly, ultimately damaging these institutions' market shares in the financial evolution process.

Although the SEC developed into a forthright regulator, willing to use its powers to protect individual investors and insure the integrity of the markets, most of the discipline to which US nonbank financial firms have been subject since 1934 is provided by the market itself. Prices have risen and fallen. Investors have often lost money. Many securities firms have failed or have been taken over by competitors. Others have entered the industry with a modest capital investment and succeeded. Firms are in fact 'regulated' by the requirements of their customers, their creditors and their owners – requirements demanding marked-to-market accounting, adequate capitalisation and disclosure of all liabilities, as well as supervisory and legal proceedings. Customers presumably require good service and honest dealings or they will change vendors. These market-driven requirements, many would argue, have proven to be as effective regulators of business conduct as any body established by government, particularly in the securities industry.

The US approach, in short, forces independent securities firms (or separately capitalised securities firms that are part of bank holding companies) to pay great attention to managing risks, managing costs and ensuring profitability in a mark-to-market environment. There is no lender of last resort for the individual firm. In addition, they are subject to the costs of maintaining expensive compliance systems, and since they are dependent on banks for much of their funding, they have to meet acceptable credit standards. Even in the case of massive failures like Drexel Burnham Lambert, regulators allowed the failure to run its course, taking care only to provide sufficient



liquidity to the market during the crisis period. When multifunctional financial firms began to emerge in the US during the 1990s and particularly after 1999, the basic approach has been regulation by function, requiring holding company structures with separately capitalised banking and non-banking affiliates.

Regulation in the US has been carried out through a crazy-quilt of agencies including the Federal Reserve, Federal Deposit Insurance Corporation, Office of the Comptroller of the Currency, Securities and Exchange Commission plus SROs like the NASD, FASB, CFTC and the major financial exchanges. Sometimes nonfinancial regulators get involved, like the Department of Labour, the Special Trade Representative, the antitrust and consumer protection agencies and various Congressional committees. In addition there are the courts, with particular importance accorded the Chancery Court of the State of Delaware. The whole thing is replicated to some extent at the state level, with state banking and securities commissions as well as insurance regulation, which rests entirely with the states.

The system is certainly subject to unnecessary complexity and excessive regulatory costs. In recognition of this, it has been partially streamlined in the 1999 Gramm-Leach-Bliley deregulation. On the other hand, there is a sense that regulatory competition may not be so bad in fostering vigorous competition and financial innovation. 'Regulator shopping' in search of lower NRBs can sometimes pay economic dividends. And some of the major regulatory problems of the recent past – notably the BCCI debacle in 1991, theft of client assets in the custody unit of Bankers Trust Company in 1998, and evasion of banking regulations in the case of the Crédit Lyonnais - Executive Life scandal in 2001 – were all uncovered at the state, not federal, level. This suggests that sometimes more eyes are better than fewer.

Mistakes have certainly been made in US financial regulation, and there have doubtless been significant opportunity costs associated with overregulation. One example is the ongoing self-dealing prohibition under the Employee Retirement Income Security Act of 1974 (ERISA), which prohibits transactions between the investment banking and pension fund management units of the same financial firm. And the way the LTCM collapse was handled by the Federal Reserve in 1998

continues to be widely debated. But by and large the system has delivered an efficient, and creative financial structure that is supportive of US growth and development and at the same time has been tolerably stable. Maybe this is as good as can be expected. If there are lessons, they are that regulatory messiness and competition is not always bad, and can lead to unexpected dynamism as default solutions are left to the market instead of the regulators. There are accidents imbedded in this approach, but so far they have been reasonably tolerable.

### **Europe is Different**

In Europe, of course, there has been no tradition of separation of commercial banking, investment banking and insurance of the type that existed in the United States since 1933 and was only liberalised fully in 1999. Instead, the 'universal banking' model has predominated from Finland to Portugal and banks have for the most part been able to engage in all types of financial services - retail and wholesale, commercial banking, investment banking, asset management, as well as insurance underwriting and distribution. Savings banks, cooperative banks, state-owned banks, private banks and in a few cases more or less independent investment banks have also been important elements in some of the national markets. Reflecting this structure, bank regulation and supervision has generally been in the domain of the national central banks or independent supervisory agencies working in cooperation with the central banks, responsible for all aspects of universal bank regulation – usually except for insurance and in some cases specialised activities like mortgage banking, placed under separate regulatory authorities. And in contrast to the US, there is little history or tradition of regulatory competition within national financial systems, with some exceptions like Germany and its regional stock exchanges.

Given their multiple areas of activity centred around core commercial banking functions, the major European players in the financial markets can reasonably be considered 'too big to fail' in the context of their national regulatory domains. This means that, unlike the United States or Japan, significant losses incurred in the securities or insurance business could bring down a bank which, in turn, is likely to be bailed out by taxpayers through a government take-over, recapitalisation, forced

merger with a government capital injection, or a number other techniques.<sup>7</sup> This means that European financial regulators may find it as necessary to safeguard those businesses in order to safeguard the banking business. Failure to provide this kind of symmetry in regulation could end in disaster. No bank failure in Europe has so far been triggered by securities or insurance losses. But it can easily happen – despite the disastrous trading activities which ultimately brought it down, it was the responsibility of the Bank of England, as home country regulator, to supervise Baring's global activities, a case that was an object lesson in how difficult this is to do.

The European regulatory overlay anchored in EU directives cover the right of banks, securities firms, asset managers and insurers to engage in business throughout the region, the adequacy of capital, as well as the establishment and marketing of collective investment vehicles like mutual funds. One can argue that the 'single passport' provisions and home-country responsibility for institutional fitness and properness were an appropriate response to reconciling the single market objectives in the EU with appropriate regulation of the financial services sector. All was supposed to be in place at the beginning of 1993. But delays and selective implementation by member governments dragged-out the process so that, almost a decade later, the benefits of the single market initiatives in this sector are probably a fraction of what they might have been. There remain important problems with respect to regulatory symmetry between banks and nonbank financial services firms. Perhaps most seriously, there remains persistent dissonance in conduct of business rules.

The latter continue to be the exclusive responsibility of host-country authorities. Financial institutions doing business in the EU must deal with 16 different sets of rules (if the Eurobond market is included). These have gradually converged towards a consensus on minimum acceptable conduct-of-business standards, although they remain far apart in detail. Areas of particular interest include insider trading and information disclosure. For example, the view that insider trading is a crime, rather than a professional indiscretion, has been new in most of Europe – few have been jailed for insider trading, and in several EU countries it is still not a criminal offence. On information disclosure in securities new issues, there has been only limited standardization of the content and

distribution of prospectuses covering equity, bond and Eurobond issues for sale to individuals and institutions in the member countries. The devil is in the details.

If a sound regulatory balance is difficult to strike within a single sovereign state, it is even more difficult to achieve in a regional or global environment where differences in regulation and its implementation can lead to migration of financial activities in line with relative net regulatory burdens. In a federal state like the United States there are limits to NRB differences that can emerge – although there are some. A confederation of sovereign states like the EU obviously has much greater scope for NRB differences, despite the harmonisation imbedded in the EU's various financial services directives. Each of these represents an appropriate response to the regulatory issues involved. But each leaves open at least some prospect for regulatory arbitrage among the participating countries and 'fault lines' across national regulatory systems – particularly as countries strive for a share of financial value-added. Players based in the more heavily regulated countries will successfully lobby for liberalisation, and the view that there ultimately has to be a broad-gauge consensus on common sense, minimum acceptable standards has gained momentum. But once again, the devil is in the details.

So far, progress in Europe has been painfully slow. As a result, in terms of Exhibit 1, the cost and availability of capital to end-users of the financial system (notably in the business sector) remains unnecessarily high and the returns to capital for end-users (notably households and most importantly pension investors) remains unnecessarily low. This has doubtless had an adverse overall impact on Europe's economic performance, both in terms of static welfare losses to consumers and producers and dynamic underperformance reflected in the process of structural adjustment and the rate of growth.

The most promising European response to this regulatory drag on economic welfare was the Lamfalussy Committee's framework report (2000). Its conclusions were straightforward and essentially performance-driven: 1. modernising financial market regulations, 2. creating open and transparent markets that facilitate achieving investor objectives and capital-raising, 3. encouraging the development of pan-European financial products that are easily and cheaply traded in liquid

markets, and 4. developing appropriate standards of consumer protection.

Judging from the Lamfalussy Committee final report (2001), European convergence is likely to involve centralised regulatory structures at the national level – emphasizing efficiency, and accountability – along the lines of the UK Financial Services Authority (FSA), which was created in 2000 as a result of reforms that began in 1997. It covers both institutions and market practices. The idea is that national regulatory convergence along these lines will contribute to reducing fragmentation of financial markets. Denmark, Sweden, Belgium, Luxembourg and Finland are reportedly moving in this direction.<sup>8</sup> In Germany, a debate has continued about regulatory domains of the federal and state level. France has apparently focused on the merits of separate regulators, one for wholesale business and institutional soundness and the other for retail activities. The French approach tries to be responsive to consumer protection and potential conflict of interest problems, as well as to the criticism that omnibus market regulators like the SEC lean too heavily to the retail side and that this can lead to overregulation of interprofessional wholesale markets.

This general convergence on a more or less consistent regulatory approach at the national level still leaves open the question of pan-European regulation, with wide differences of opinion as to necessity and timing.

The Lamfalussy Report simply recommends a fast-track 'securities committee' intended to accelerate the process of convergence based on a 'framework' agreed by the EU Commission, Council of Ministers and European Parliament. As noted earlier, small changes in regulation tend to trigger big changes in the playing field. Some win and some lose, and the losers' political clout can postpone the day of reckoning – especially if the 'common interest' is hard to document. So the Lamfalussy Committee also has more concrete recommendations on investment rules for pension funds, uniformity in accounting standards, access to equity markets for financial intermediaries on a 'single passport' basis, the definition of investment professionals, mutual recognition of wholesale financial markets, improvements in listing requirements for the various exchanges, a single prospectus for issuers throughout the EU, and improvements in information disclosure by corporations.<sup>9</sup>

Many of these recommendations were already incorporated in the 1992 Investment Services Directive, but implemented unevenly or sometimes not at all. The Committee makes a compelling case for accelerated and forthright implementation, hardly too much to ask a decade after launch. So a 'regulators committee' is foreseen in order to assure that enabling legislation and market rules are actually implemented. The European Securities Committee (ESC) was created in June 2001 to accelerate progress in line with the Lamfalussy Report's end-2003 target. Comprised of representatives of the member states, the ESC is ultimately to be transformed into a pan-EU regulatory body charged with implementing securities legislation. The European Parliament immediately demanded the power to review decisions of the ESC. In June 2001 the draft single-prospectus directive was generally welcomed, although the 'market abuse' draft directive was highly criticized for being excessively broad. The reception of both suffered from a lack of consultation by the Commission with national financial regulators and the financial community.

All of these recommendations make a great deal of sense. The best features of the Anglo-American approach are adopted and those that might not work well in the European context (including perhaps a central SEC with substantial enforcement powers) are de-emphasized. The Lamfalussy proposals, if vigorously implemented, will go a long way toward achieving the efficiency and growth objectives that the Committee targeted in its initial report. And within the financial sector itself, if European firms are eventually to gain on the current American market share of roughly 65 per cent in global capital-raising and corporate advisory revenues, who could disagree?(see Smith and Walter, 2000b)

## **Conclusions**

This paper has attempted to identify the generic processes and linkages that comprise financial intermediation and the determinants of high-performance financial systems. It then documented major structural changes that have occurred (in-market and cross-market, domestic and cross-border), pointing out that those financial channels which exhibit greater static and dynamic efficiency have progressively supplanted less efficient ones. These 'financial hydraulics', in turn,

have had important implications for firms that occupy the 'activity-space' that defines the financial services sector – commercial banking, securities and investment banking, insurance, and asset management. The paper then superimposed key regulatory overlays onto the basic economics and facts of financial services reconfiguration, emphasizing that balancing efficiency against stability and fairness is never easy. Finally, linkages were drawn between structural change in financial intermediation and supervisory and regulatory functions, including some comparisons between US and European legacies and prospects.

The regulatory environment is central to the evolution of the financial services industry. Overregulation leads to opportunity costs in the form of inefficient allocation of capital to the detriment of end-users of the financial system and overall economic performance. Underregulation can promote financial collapse and all of the costs associated with systemic crises, or engender market inequities that eventually come back to haunt the system. Even a finely balanced degree of regulation carries with it the risks associated with moral hazard and adverse selection.

Financial regulation imposes both benefits and costs on participants, and it is optimum rather than minimum regulation that will attract transactions-flows to particular markets. In continental Europe much of the financial services industry is imbedded in large universal banks which are doubtless too big to fail. These in turn have to compete on a global playing field with independent financial firms or separately capitalised affiliates of bank holding companies. The former benefit from an implied taxpayer guarantee but at the same time are deprived of the need to be quite as sharp in managing their businesses. Achieving optimum regulatory structures in increasingly integrated financial markets in Europe – characterised by intense competition among regulatory jurisdictions – may well be impossible without a significant degree of coordination and some degree of regulatory centralisation. It is for this reason that ongoing regulatory efforts are so important.

Assuming no regulatory and protectionist backsliding, the European financial market environment must ultimately allow various players to compete in each-others' markets geographically, cross-client, and cross-product. The regulatory outcome must therefore provide a

reasonably level playing field for all kinds of financial institutions to compete for business across the entire financial intermediation spectrum. Only in this way will Europe harvest the gains of a highly efficient and creative financial architecture – one that is fully competitive with evolving markets elsewhere in the world.

---

## Notes

<sup>1</sup> For an early version, see Walter, I. (1988), Global Competition in Financial Services: Market Structure, Protection and Trade Liberalization.

<sup>2</sup> The regulatory playing-field on which financial-sector reconfiguration has take place has seen substantial convergence, notably with the phasing-out of Article 65 of the Japan Financial Law and passage of the US Gramm-Leach-Bliley Act in 1999, both of which allow strategic interpenetration of the four major activities comprising financial services depicted in Exhibit 6 that was severely restricted before.

<sup>3</sup> For a discussion of the financial markets aspects, see Dermine, J. and P. Hillion (eds) (1999), European Capital Markets With a Single Currency, and Walter, I. and R.C. Smith (2000), High Finance in the Euro-zone.

<sup>4</sup> For example, public agencies like the SEC in the US which forces firms to produce timely accounting statements and market guidance – such as Regulation FD (fair disclosure) in 2001 – plus non-governmental entities like the Financial Accounting Standards Board (FASB) which lays down accounting rules and conventions, and bank supervisors who both monitor and produce information about financial institutions, all play an extremely important role in engendering both efficiency and confidence in financial markets and institutions. These contributions to economic performance have increasingly been documented in empirical studies. For a review, see Story, J. and I. Walter (1998), Political Economy of Financial Integration in Europe.

<sup>5</sup> See the discussion in Walter, I. (2001), World Online International N.V.

<sup>6</sup> See for example 'Top Business Court Under Fire', New York Times, 23 May 1995.

<sup>7</sup> Leaving aside the question whether a small country is in fact capable of bailing-out a major global bank under its regulatory jurisdiction.

<sup>8</sup> 'A Ragbag of Reform', The Economist, 1 March 2001.

<sup>9</sup> The Economist (ibid.) Quotes the case of Lernout & Hauspie, a Belgian tech firm under investigation for fraudulent accounting, where local investigators had to rely on the SEC's EDGAR system for financial reports on the company.

## Bibliography

Cumming, C.M. and B.J. Hirtle (2001), The Challenges of Risk Management in Diversified Financial Companies, Federal



---

Reserve Bank of New York Policy Review, EPR7.01 (01).

Dermine, J. and P. Hillion (eds) (1999), European Capital Markets With a Single Currency, Oxford: Oxford University Press.

Kane, E.J (1987), 'Competitive Financial Reregulation: An International Perspective', in R. Portes and A. Swoboda (eds), Threats to International Financial Stability, London: Cambridge University Press.

Lamfalussy Report (2001), Final Report on the Regulation of European Securities Markets, Brussels, February.

Smith, R.C. and I. Walter (1997), Street Smarts: Leadership, Professional Conduct and Shareholder Value in the Securities Industry, Boston: Harvard Business School Press.

Smith, R.C. and I. Walter (2000), High Finance in the Euro-zone, London: Financial Times - Prentice Hall.

Smith, R.C. and I. Walter (2000a), Global Wholesale Finance: Structure, Conduct, Performance, paper presented at the 22<sup>nd</sup> Annual Colloquium of the Société Universitaire Européenne de Recherches Financières (SUERF), Vienna, 27-29 April 2000.

Story, J. and I. Walter (1998), Political Economy of Financial Integration in Europe, Manchester: Manchester University Press, and Cambridge: MIT Press.

Walter, I. (1988) Global Competition in Financial Services: Market Structure, Protection and Trade Liberalization, New York:

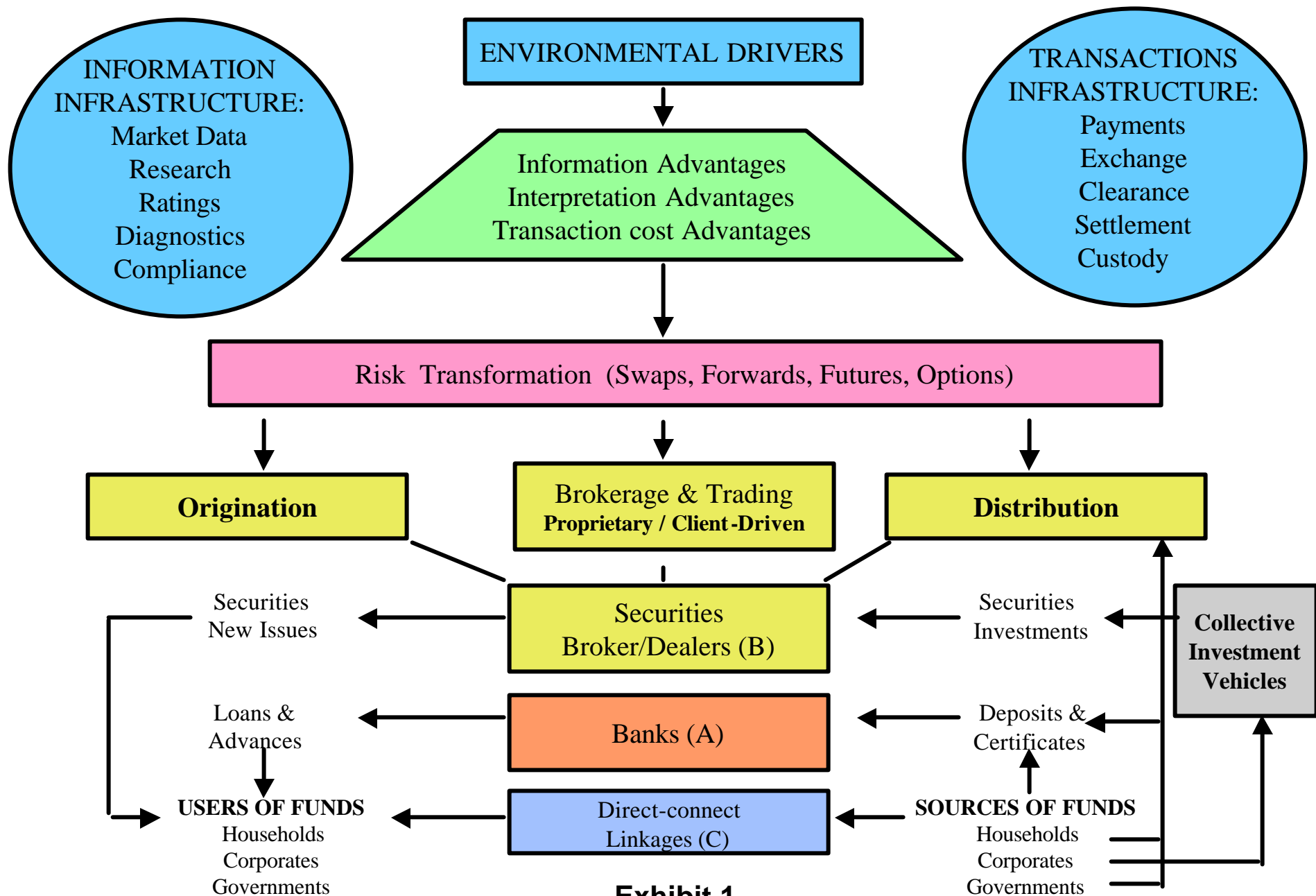
Ballinger - Harper & Row for the American Enterprise Institute.

Walter, I. (2001), World Online International N.V., New York University and INSEAD teaching case.

**Ingo Walter**

**Financial Integration Across Borders  
and Across Sectors:  
Implications for Regulatory Structures**

**Exhibits**



**Exhibit 1**

Source: Roy C. Smith and Ingo Walter, *Global Banking* (New York: Oxford University Press, 1997).

## **Exhibit 2**

### **E – Applications in Financial Services (January 2001)**

#### **Retail banking:**

On-line banking (CS Group, Bank-24, E\*loan, Amex Membership B@nking,  
ING Direct, Egg)

#### **Insurance:**

ECoverage (P&C)  
EPrudential term and variable life

#### **Retail brokerage:**

E-brokerage (Merrill Lynch, MSDW, Fidelity, Schwab, E\*trade,  
DJL Direct, Consors)

**Exhibit 2 (continued)**  
**E – Applications in Financial Services**  
**(January 2001)**

**Primary capital markets:**

E-based CP & bond distribution (UBS Warburg, Goldman Sachs)

**E-based direct issuance:**

Governments (TreasuryDirect, World Bank)

Municipals (Bloomberg Municipal, UniAuction, Parity)

Corporates (CapitaLink, Intervest)

IPOs (W.R. Hambrecht, Wit Capital, Schwab, E\*Trade)

## **Exhibit 2 (continued)**

### **E – Applications in Financial Services (January 2001)**

#### **Secondary Financial Markets**

**Forex** (Currenex.com, FXall.com)

**Governments** (Bloomberg Bond Trader, QV Trading Systems, TradeWeb EuroMTS)

**Municipals** (QV Trading Systems, Variable Rate Trading System)

**Corporates** (QV Trading Systems)

**Government debt cross-matching** (Automated Bond System, Bond Connect, Bondnet)

**Municipal debt cross-matching** (Automated Bond System)

**Corporate debt cross-matching** (Automated Bond System, Bond Connect, Bondlink, BondNet Limitrader)

**Debt interdealer brokerage** (Brokertec, Primex)

**Equities – ECNs** (Instinet, Island, Redi-Book, B-Trade, Brut, Archipelago, Strike, Eclipse)

**Equities-cross-matching** (Barclays Global Investors, Optimark)

**Research** (The Markets.com)

**Exhibit 2 (continued)**  
**E – Applications in Financial Services**  
**(January 2001)**

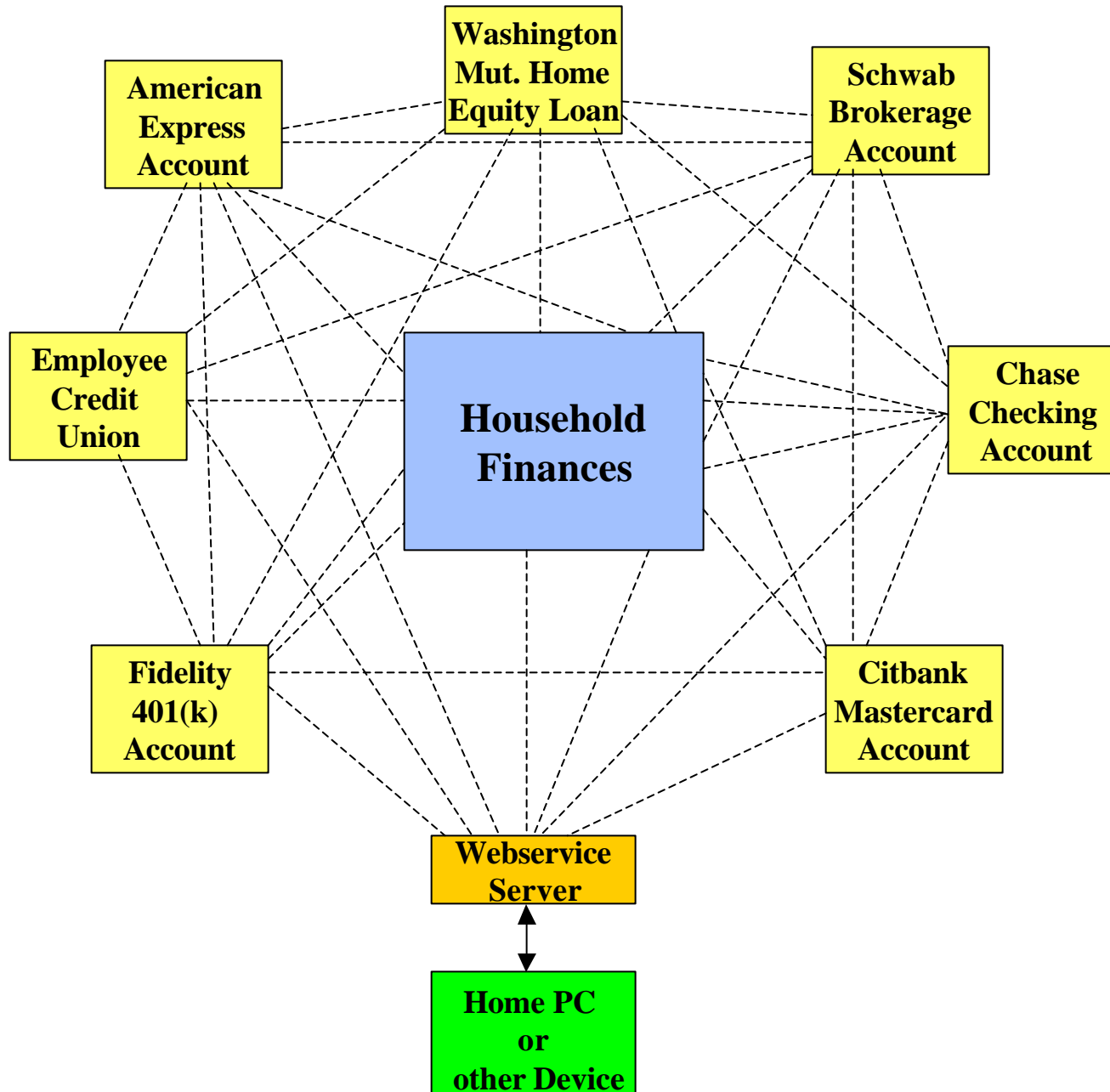
**End-user Platforms:**

Corporate finance end-user platforms  
(CFOWeb.com)<sup>3</sup>

Institutional investor utilities

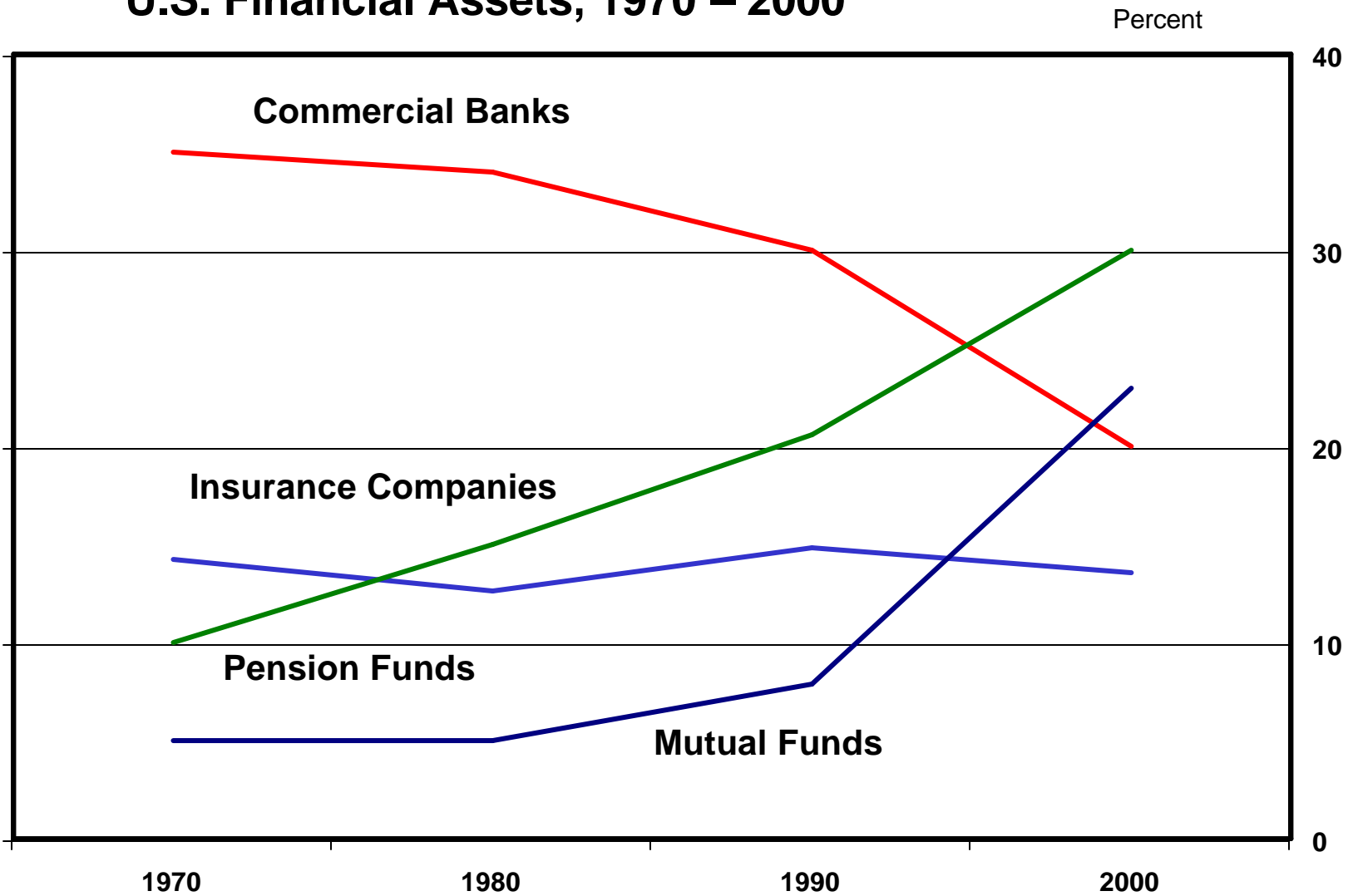
Household finance utilities (Quicken 2001,  
Yodlee.com)

# Exhibit 3 -- Prototype On-Line Personal Finance Platform



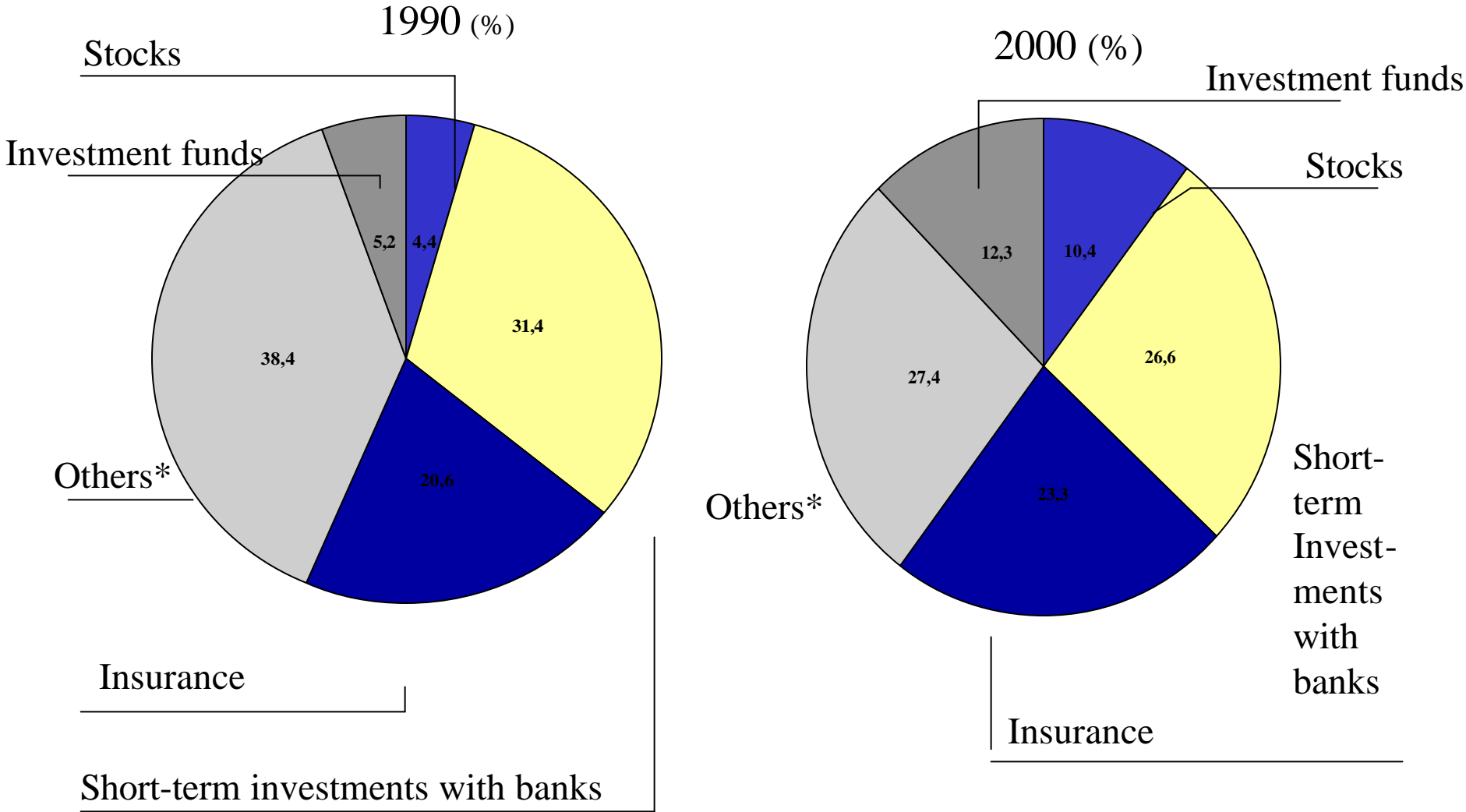


# Exhibit 4 U.S. Financial Assets, 1970 – 2000



Source: Federal Reserve

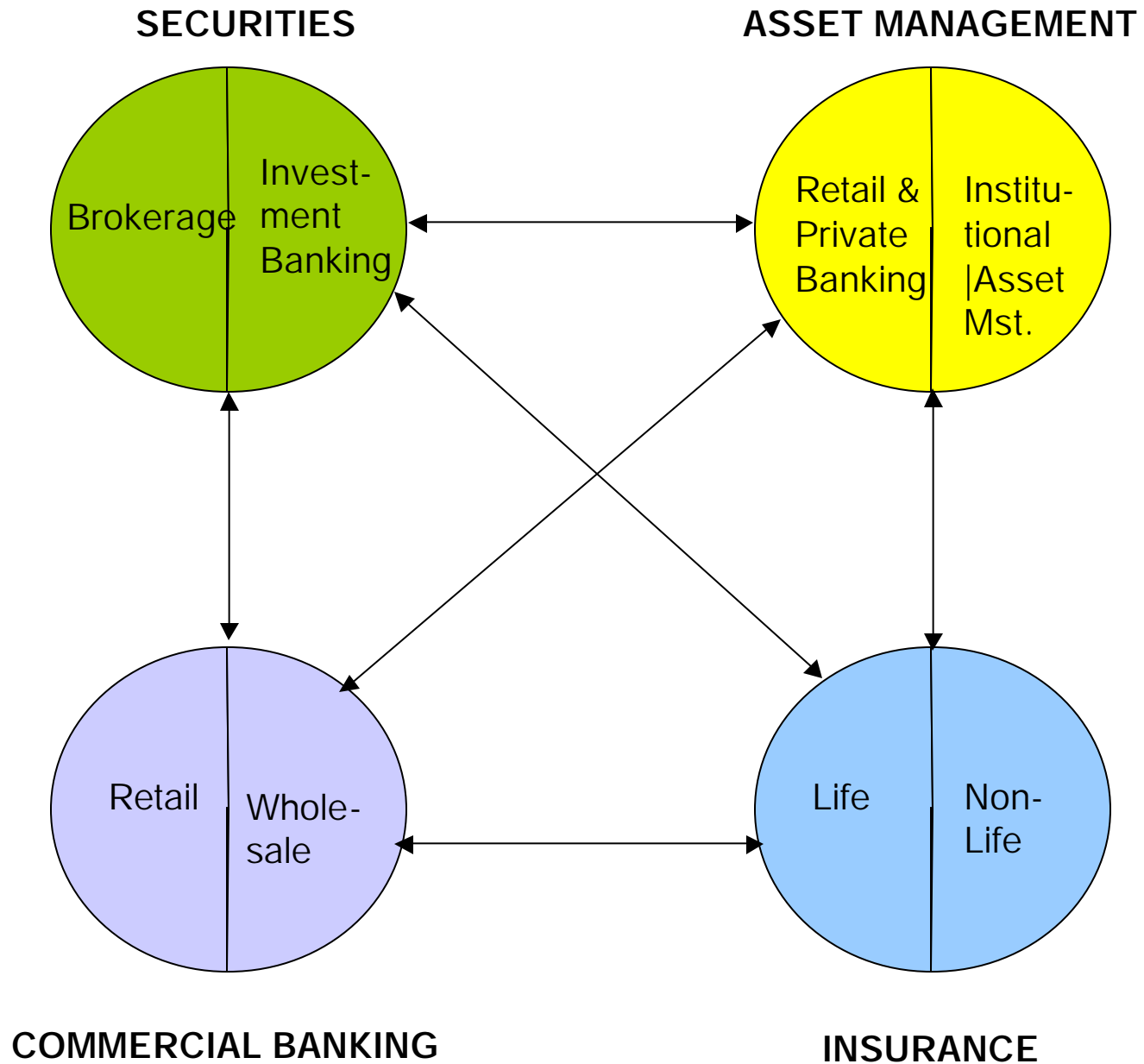
# Exhibit 5 Private Asset Allocation in German Households



Sources: Tecis ; JP Morgan

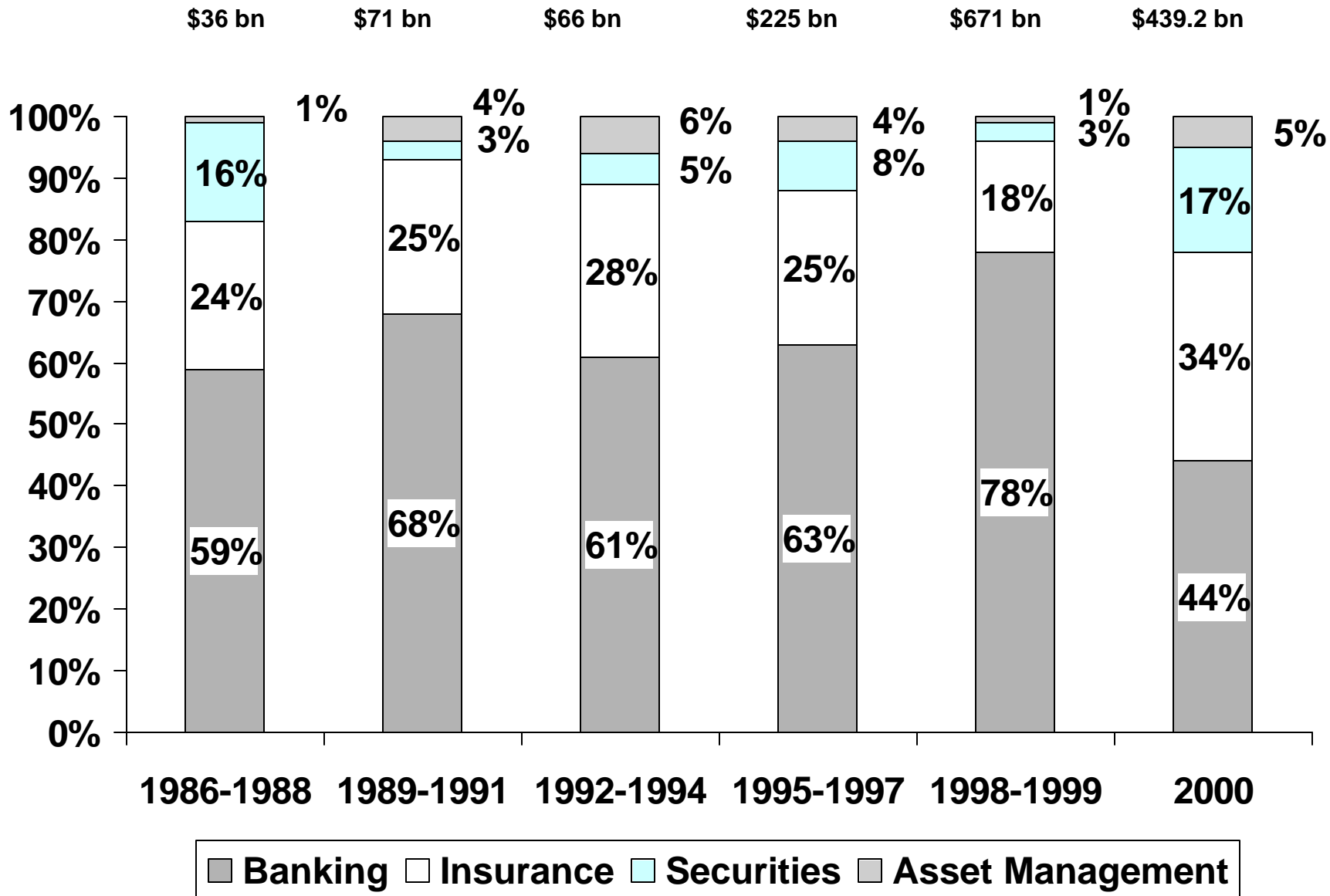
\*includes fixed interest deposits, long-term investments with banks and building society deposits

# Exhibit 6 Multifunctional Financial Linkages



# Exhibit 7

## Worldwide Financial Services Merger Volume

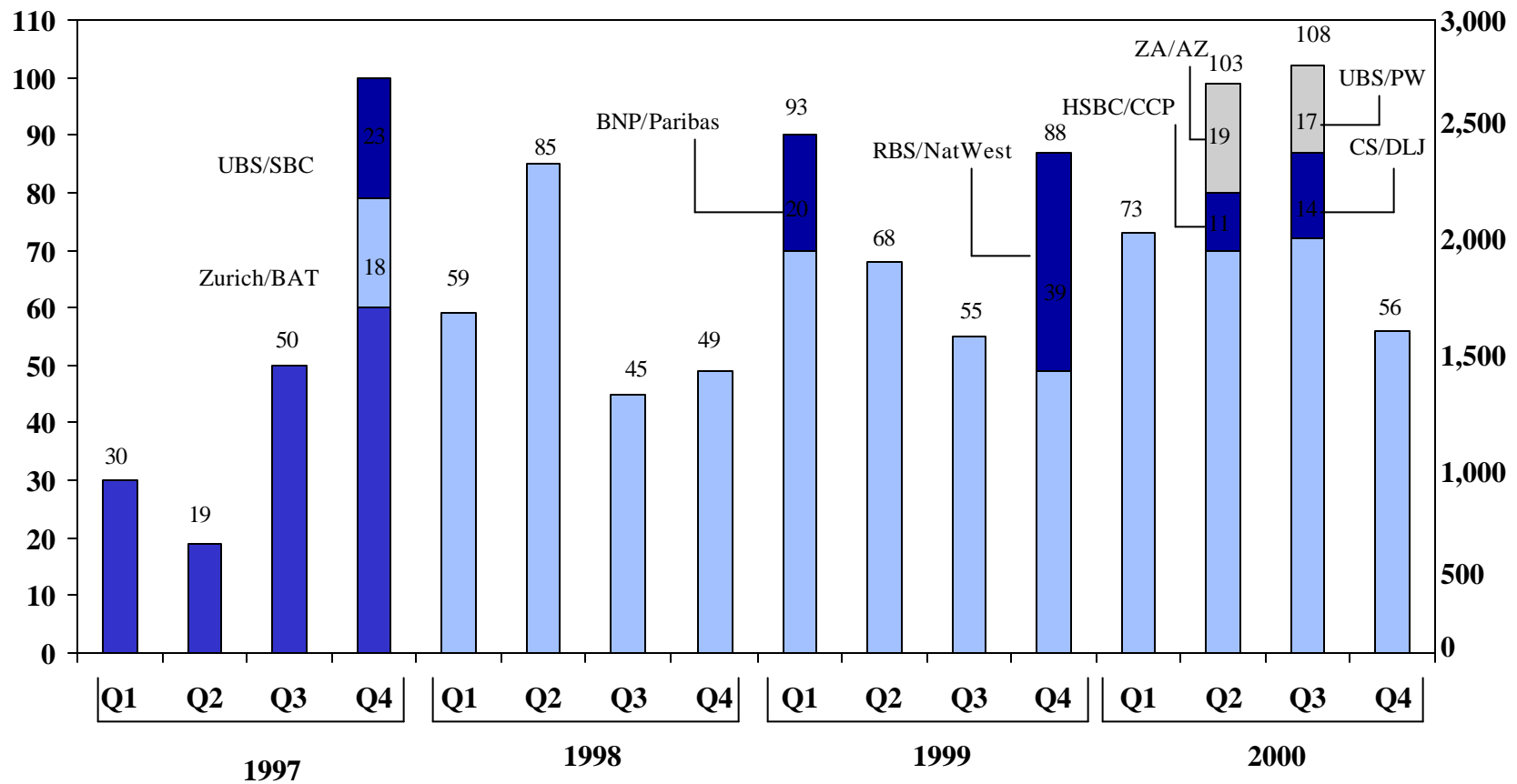


# Exhibit 8 Financial M&A Volume, European Involved, 1997-2000

\$billions

M&A Volume (\$ bn)

Market Value (\$ bn)



Number of deals

\$10 bn+	0	0	0	3	1	2	0	0	3	2	1	2	1	2	3	0
\$1-10 bn	7	4	8	10	10	12	11	11	10	9	9	10	17	17	13	12

Source: JP Morgan M&A Research, Thomson Financial Securities Data

# Exhibit 9

## Target Institution

	WorldTotal			US			Europe		
	Banks	Securities	Insurance	Banks	Securities	Insurance	Banks	Securities	Insurance
Commercial Banks	1174 (464%)	100 (40%)	57 (23%)	538 (524%)	24 (23%)	0.3 (00%)	373 (438%)	25 (29%)	48 (56%)
Securities Firms	116 (46%)	314 (124%)	96 (38%)	13 (13%)	162 (158%)	32 (31%)	38 (45%)	76 (89%)	32 (38%)
Insurance Companies	131 (52%)	55 (22%)	487 (192%)	73 (7.1%)	16 (16%)	168 (164%)	50 (59%)	12 (1.4%)	198 (232%)

Source: Thompson Financial Securities Data.

# Exhibit 10

## Target Institution

Acquiring Institution	World Total			US:nonUS			Intra-Europe			Europe:Non Europe		
	Banks	Securities	Insurance	Banks	Securities	Insurance	Banks	Securities	Insurance	Banks	Securities	Insurance
Commercial Banks	1361 (228)%	491 (82)%	49 (0.8)%	319 (127)%	380 (151)%	0.8 (0.3)%	635 (25.8)%	74 (3.0)%	27 (1.1)%	49.1 (20.2)%	366 (15.1)%	1.0 (0.4)%
Securities Firms	234 (3.9)%	84.7 (14.2)%	18.1 (3.0)%	7.1 (2.8)%	54.3 (21.6)%	8.3 (3.3)%	9.4 (3.8)%	17.6 (7.2)%	29 (1.2)%	6.9 (2.8)%	31.6 (13.0)%	132 (5.4)%
Insurance Companies	252 (4.2)%	270 (4.5)%	2285 (38.3)%	3.1 (1.2)%	21.3 (8.5)%	869 (34.5)%	205 (8.3)%	29 (1.2)%	119.1 (48.4)%	36 (1.5)%	198 (8.1)%	81.3 (33.4)%

Source: DeLong, Smith and Walter [1998] and Thomson Financial Securities Data. The first figure is the dollar value (in billions) of M&A activity and the second number in parentheses is the percentage of the total (these sum to 100 for each 3x3 matrix). Figures reported are the sum of the equity values of the target institutions.

# Exhibit 11

## The US Financial Services Sector, 1950

Function Institution	Payment Services	Savings Prod.	Fiduc. Services	Lending		Underwriting Issuance of		Insurance and Risk Mgt. Products
				Business	Retail	Equity	Debt	
Insured Depository Institutions	✓	✓	✓	✓	✓			
Insurance Companies		✓		✓				✓
Finance Companies				✓	✓			
Securities Firms		✓	✓			✓	✓	
Pension Funds		✓						
Mutual Funds		✓						



Minor involvement



# Exhibit 12

## The US Financial Services Sector, 2001

Institution \ Function	Payment Services	Savings Prod.	Fiduc. Services	Lending		Underwriting Issuance of		Insurance and Risk Mgt. Products
				Business	Retail	Equity	Debt	
Insured Depository Institutions	✓	✓	✓	✓	✓	✓	✓	✓
Insurance Companies	✓	✓	✓	✓	✓	✓	✓	✓
Finance Companies	✓	✓	✓	✓	✓	✗	✗	✓
Securities Firms	✓	✓	✓	✓	✓	✓	✓	✓
Pension Funds		✓	✓	✓	✓			
Mutual Funds	✓	✓	✓		✓	✗		✓
Diversified Financial Firms	✓	✓	✓	✓	✓	✓	✓	✓
Specialist Firms	✓	✓	✓	✓	✓	✓	✓	✓

✗ Selective involvement of large firms via affiliates

# Exhibit 13

## Financial Services Concentration Ratios

**Retail Banking**  
 Percentage of total deposits held by top 30 bank holding companies  
**Total deposits:** \$3.6 trillion

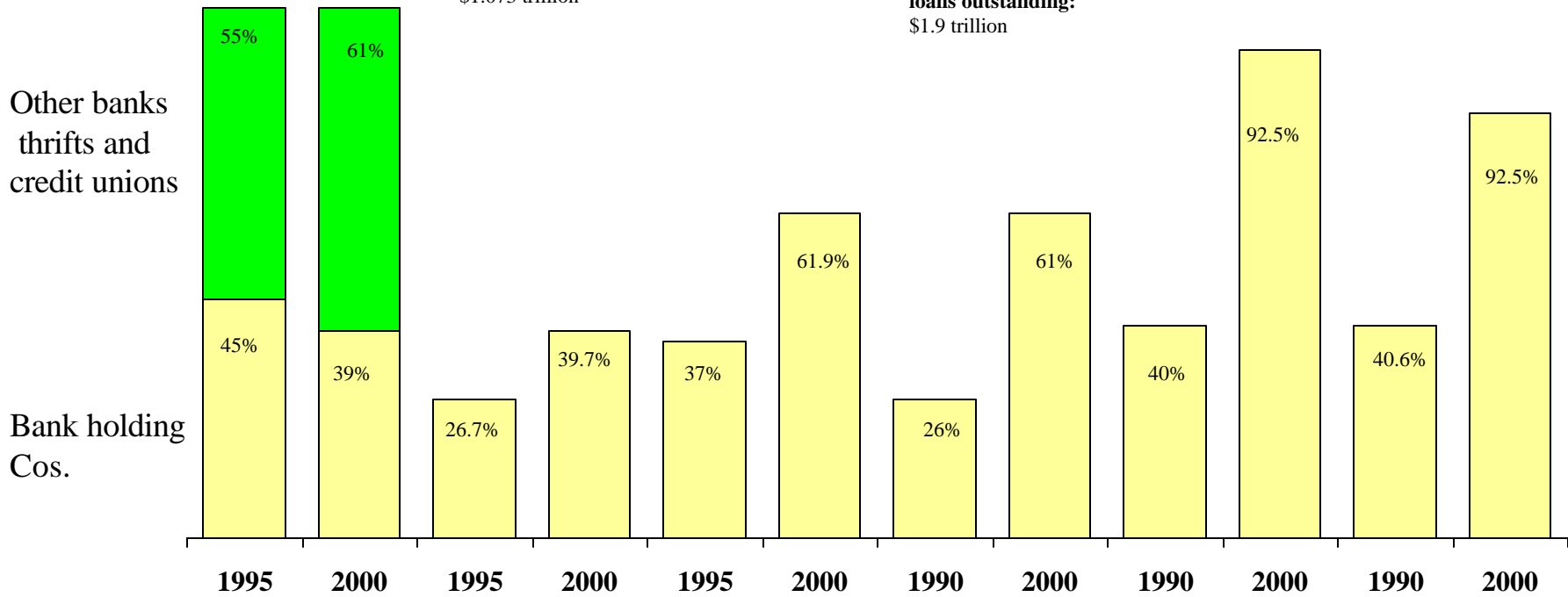
**Mortgage Origination**  
 Percentage of origination by top 10; ranked by value of loans outstanding  
**Total originations:** \$1.073 trillion

**Credit Cards**  
 Percentage of total credit issued by top five; ranked by value of outstandings  
**Total industry Outstanding:** \$478.7 billion

**Corporate Lending**  
 Percentage of syndicated loans to large corporation in which the top five players served as the agent bank\*  
**Total syndicated loans outstanding:** \$1.9 trillion

**Custody Banks**  
 Percentage of total held by top 10; ranked by global assets under management  
**Total world-wide Assets under Management:** \$37.24 trillion (approx.)

**Investment Banking**  
 Percentage of wholesale origination held by top-ten firms (global)  
**Volume:** \$11.5 trillion



\*The agent bank arranges a financing pool in which other banks participate.

Sources: First Manhattan Consulting Group; Inside Mortgage Finance; the Nilson Report; Loan Pricing Corp.; Federal Reserve; Institutional Investor

## **Exhibit 14**

### **Structure of Financial Institutions**

#### **United States**

Commercial banks

Savings institutions

Credit Unions

Finance companies

Securities brokerage

On-line brokerage

Investment banks

Mutual fund companies

Mortgage companies

Insurance companies

#### **Europe\***

Banks

Banks, publ. savings inst., cooperatives

Banks, publ. savings inst., cooperatives

Banks

Banks

Banks, e-brokers and independent locals

Bank affiliates

Bank affiliates

Bank affiliates and mortgage banks

Insurance companies and bancassurance

\* Significant inter-country differences exist among European markets.

# Exhibit 15

## The European Financial Services Sector, 2001

Institution \ Function	Payment Services	Savings Prod.	Fiduc. Services	Lending		Underwriting Issuance of		Insurance and Risk Mgt. Products
				Business	Retail	Equity	Debt	
Insured Depository Institutions	✓	✓	✓	✓	✓	✓	✓	✓
Insurance Companies		✓	✓					✓
Finance Companies				✓	✓			✓
Securities Firms			✓			✓	✓	✓
Pension Funds			✓					
Mutual Funds		✓	✓					
Diversified Financial Firms								
Specialist Firms	✓	✓	✓	✓	✓	✓	✓	✓



Selective involvement of large firms via affiliates

## Exhibit 16

# THE U.S. FINANCIAL SYSTEM IN PERSPECTIVE<sup>1</sup>

<b>US share of global:</b>	
Population <sup>2</sup>	4.5%
GDP	28.9%
Banking assets	10.6%
Syndicated lending	13.5%
Bond market cap.	44.9%
Equity market cap.	50.0%
Non-govt. debt new issues	53.2%
Equity new issues	57.0%
Completed M&A (by value)	52.8%
Pension assets under mgt.	59.4%
Mutual fund assets	53.0%
<b>Asset management (AUM)</b>	<b>51.1%</b>
<b>Loan lead-managers</b>	<b>77.2%</b>
<b>Debt &amp; equity bookrunners</b>	<b>66.3%</b>
<b>M&amp;A advice (by value)</b>	<b>78.6%</b>

<sup>1</sup>2000 data unless otherwise noted.

<sup>2</sup>Population data for 1998.

# Will Multifunctional Financial Conglomerates

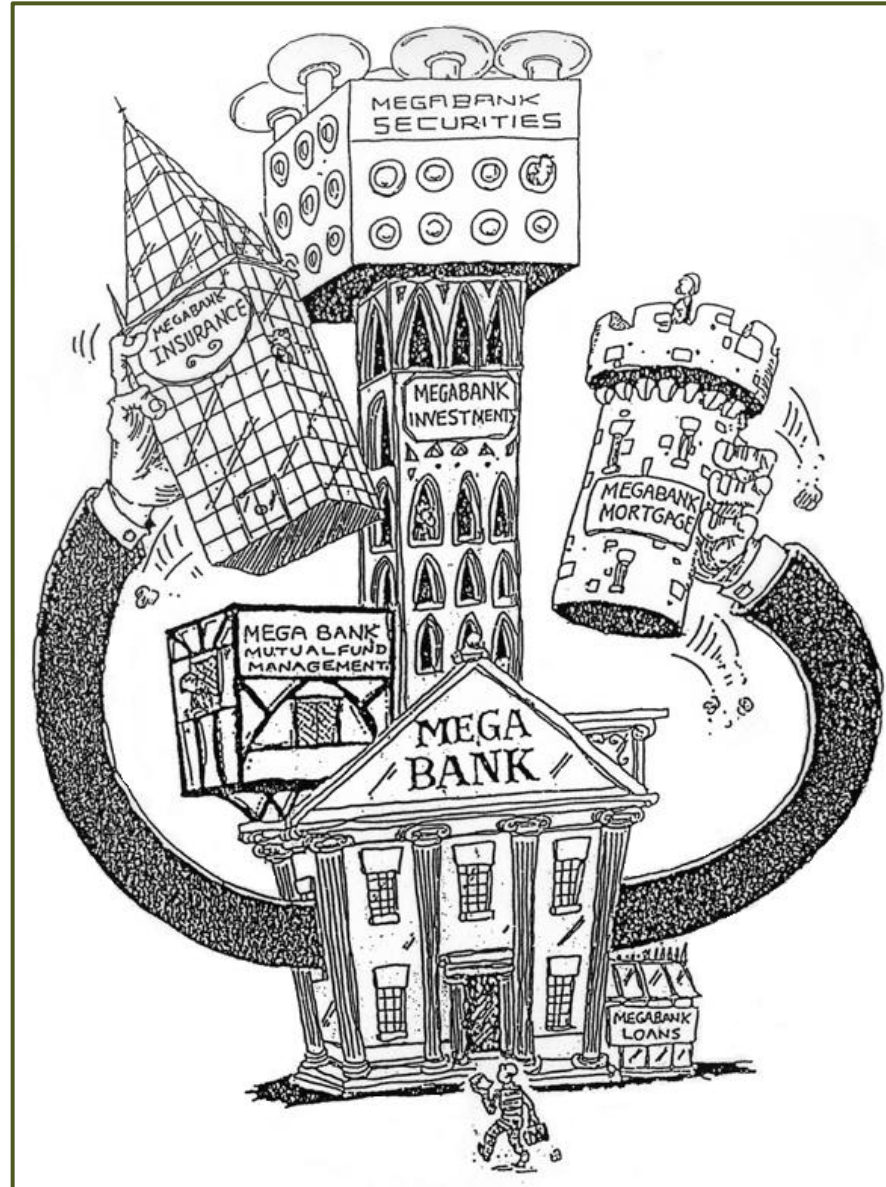


Exhibit 17

Source: The Economist

# Exhibit 18

## Disappearing Investment Banks, 1986-2001

- Kuhn Loeb (1986)
- E. F. Hutton (1987)
- Morgan Grenfell (1989)
- Drexel Burnham (1990)
- Shearson Lehman American Express (1993)
- Kidder Peabody (1994)
- Baring Brothers (1995)
- Kleinwort Benson (1995)
- Alex Brown (1997)
- Dillon Read (1997)
- Hoare Govett (1997)
- Robertson Stephens (1997)
- Montgomery Securities (1997)
- Peregrine Securities (1997)
- BZW (1998)
- S.G. Warburg (1998)
- NatWest Markets (1998)
- MeesPierson (1998)
- Cowen & Co (1998)
- Yamaichi Securities (1998)
- Paribas (1998)
- Hambrecht & Quist (1998)
- Charterhouse (1999)
- Phoenix Securities (1999)
- Bankers Trust Company (1999)
- Furman Selz (1999)
- Schroders (2000)
- Robert Fleming (2000)
- PaineWebber (2000)
- JP Morgan (2000)
- Donaldson Lufkin Jenrette (2000)
- Wasserstein Perella (2000)
- Beacon (2000)
- ING Barings (2001)
- Dean Witter (2001) – name dropped
- Salomon Smith Barnet – name dropped

# Exhibit 19

## Active Underwriters and Dealers: High-Yield Bonds

1990			2001			1990			2001		
1	Morgan Stanley	⇒	Morgan Stanley	1	14	Bankers Trust	⇒	Deutsche Banc Securities	5		
2	Dean Witter	⇒	UBS Warburg	2	15	Alex Brown	⇒				
3	UBS	⇒		16	Deutsche Bank	⇒					
4	Swiss Bank Corp.	⇒		17	First Boston	⇒					
5	S.G. Warburg	⇒		18	DLJ	⇒					
6	Dillon Read	⇒		19	Salomon Bros.	⇒	Salomon Smith Barney	7			
7	PaineWebber	⇒		20	Smith Barney	⇒					
8	Kidder Peabody	⇒		3	J.P. Morgan Chase	3	21	Citibank	⇒	Merrill Lynch	8
9	Chase	⇒		4	BancAmerica Securities	4	22	Merrill Lynch	⇒		
10	Chemical Bank	⇒	23	Goldman Sachs		⇒	Goldman Sachs	9			
11	J.P. Morgan	⇒	24	Prudential		⇒			Exited Business		
12	Nationsbank	⇒	25	Bear Stearns		⇒	Bear Sterns	10			
13	BankAmerica	⇒	26	Lehman Brothers	⇒	Lehman Brothers			11		

Source: JP Morgan Chase

The consolidation of many securities firms combined with the dealers' reduced willingness to take risk have drastically reduced all firms' market-making activities.



## Exhibit 20

### The 15 Most Valuable Financial Services Businesses in North America and Europe (Market cap. 4 May 2001)

#### North America

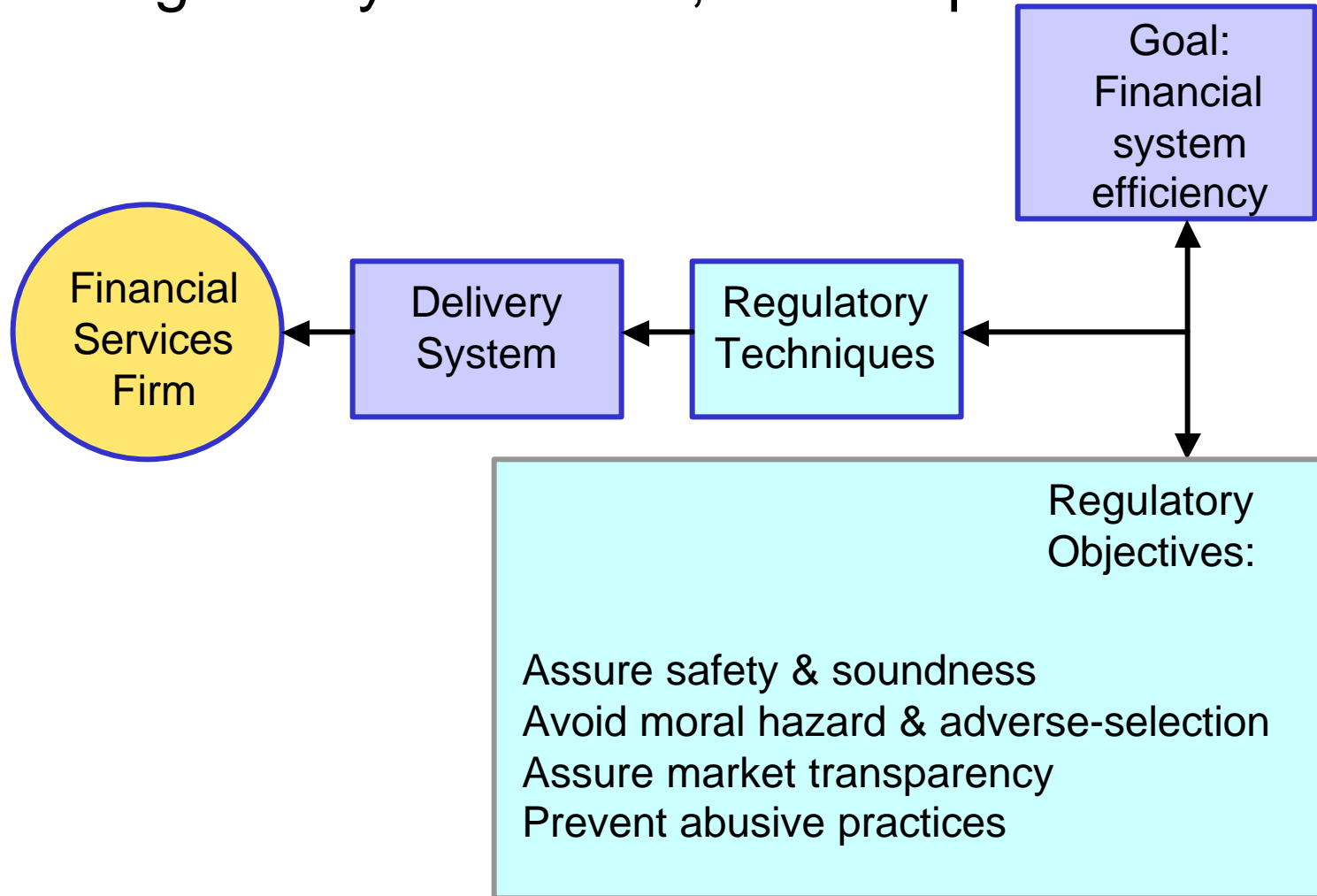
Citigroup	250,143
AIG	206,084
GECS	194,636
Berkshire	105,238
JPM Chase	103,133
Morgan Stanley	99,055
Bank of America	82,745
American Express	72,069
Merrill Lynch	60,883
Goldman Sachs	54,297
Banc One	46,395
Schwab	41,609
Bank of New York	41,466
MBNA	33,007
Marsh & McLennan	30,457

#### Europe

HSBC	140,693
Allianz	86,530
ING	83,530
UBS	73,497
RB Scotland	60,865
Lloyds TSB	60,663
Munich Re	60,532
AXA	58,235
CS Group	57,719
Barclays	53,630
Deutsche	51,047
AEGON	50,753
Zurich	50,194
BSCH	48,310
BBVA	46,774

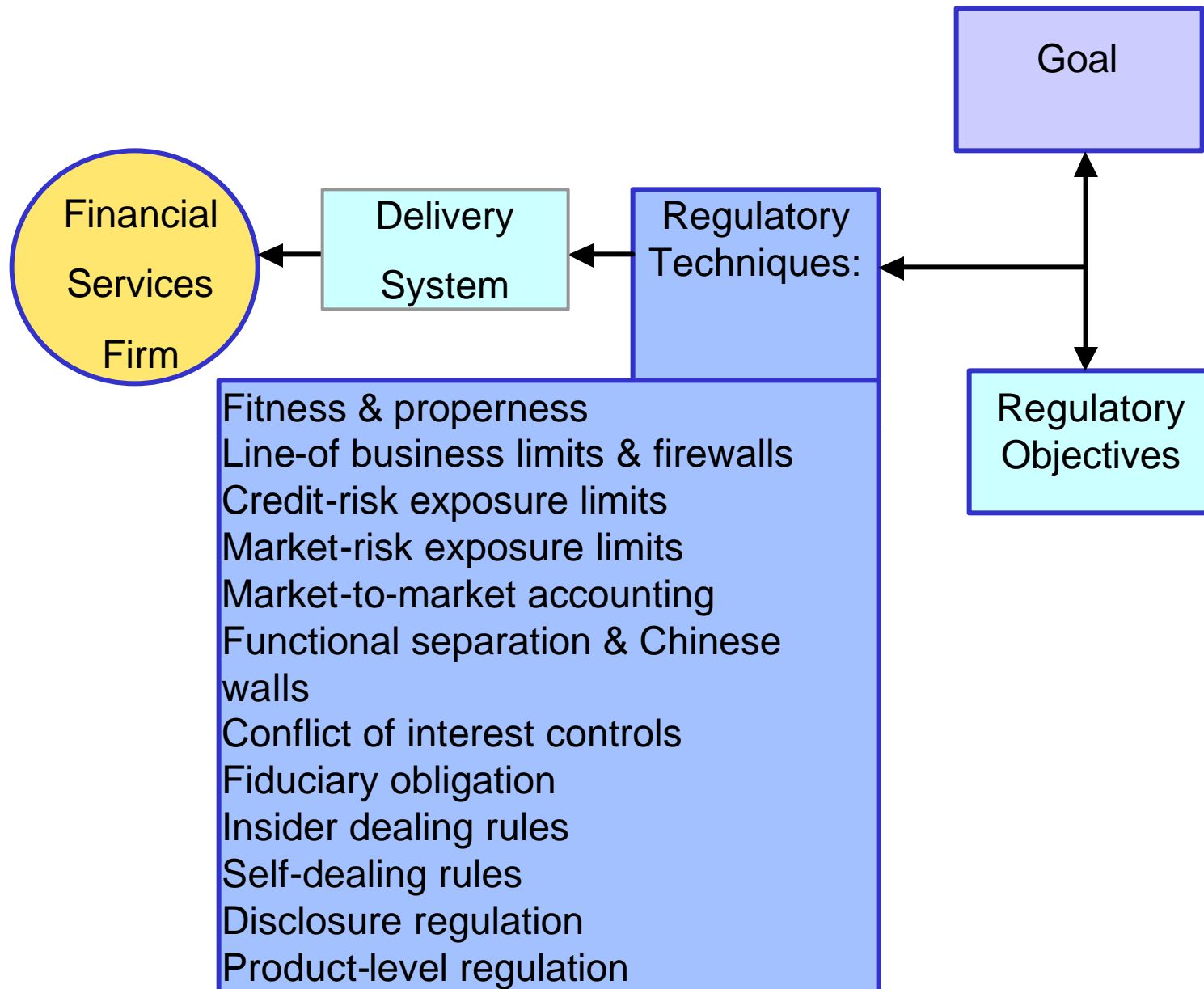
# Exhibit 21

## Regulatory Tradeoffs, Techniques and Control



# Exhibit 22

## Regulatory Tradeoffs, Techniques and Control



# Exhibit 23

## Regulatory Tradeoffs, Techniques and Control

