

Factors Driving Further Change

Introduction

3.1 This chapter describes the major factors driving change in the financial system and identifies some of their implications. The key regulatory challenges posed by these developments are examined in more detail in later chapters. Material presented in this chapter represents preliminary observations of the Inquiry and will be refined and amended as necessary for the Final Report.

3.2 Four key factors driving change are:

- globalisation;
- technology;
- consumer needs and demands; and
- financial innovation.

3.3 While this chapter addresses these factors separately, they interact with and affect one another. For example, global competitors have emerged in Australian markets partly because technological developments have enabled them to access Australian consumers. Similarly, consumer demand for certain financial products, such as securitised home mortgages, has been stimulated by technological developments that have made those products both feasible and accessible to consumers.

3.4 This chapter also considers market implications of these factors driving change, including changes to wholesale markets, financial service providers, products, and distribution channels. Some of these market implications are evident as early trends now, and the real question is how

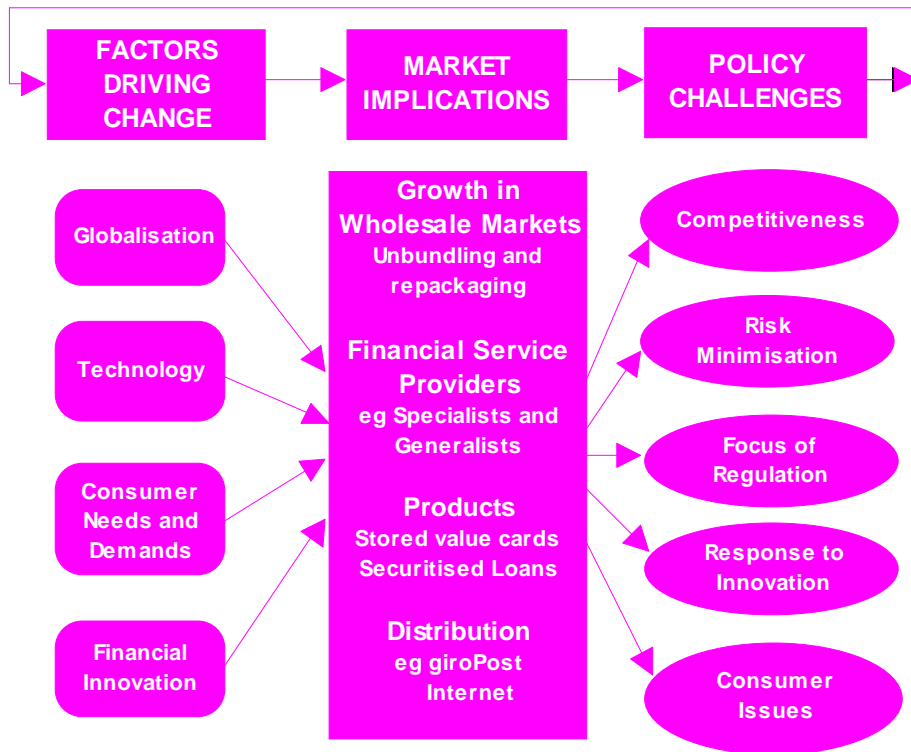
quickly such trends will be borne out. Others fall into the realm of the merely possible. In order to frame recommendations about the future regulatory framework, it is important to identify the range of possible implications. The regulatory system needs to be flexible enough to anticipate and react to the range of possible developments in the financial system, to avoid inhibiting changes except in cases where there are essential public policy reasons for doing so.

3.5 The chapter concludes by identifying some of the policy challenges to the existing regulatory framework posed by possible developments in the financial system. Figure 3.1 provides a schematic representation of the approach taken in this chapter.

3.6 Changes to the regulatory framework to meet these policy challenges introduce distortions to the free operation of markets and the financial system as a whole, and therefore are significant drivers of change themselves. For example, later in this chapter the shift in household savings towards retirement products, encouraged by regulation, is identified as a major factor in the growth of securitisation. Thus, changes to the regulatory framework operate as a major influence on the financial system by feeding back into the factors driving change in the system. This is represented in Figure 3.1 as an arrow linking the policy challenges to the factors driving change.

3.7 As the Inquiry's task is to recommend changes to the regulatory framework in response to these developments, this chapter focuses on describing the non-regulatory factors driving change and their market implications.

Figure 3.1: Schematic Representation of Approach



Factors Driving Change

Globalisation

3.8 Globalisation refers to the international integration of markets. Ultimately, fully-integrated national markets may be viewed as operating as a single global market. A corollary of this is that competition between financial service providers occurs at the global, as well as the national or regional, level. It is the ability to locate operations in a low-cost or strategically important country, to obtain finance from the lowest-cost and best quality financial service providers, and to invest where returns are most favourable that underpins global markets.

3.9 While international financial markets are far from fully globalised, there is an inexorable trend in that direction over the past 2 decades both in Australia and abroad. Deregulation has removed many of the barriers to international access, and technology has lowered the cost of international transactions.

3.10 Evidence of globalisation at the corporate financing level is presented in Figures 3.2 to 3.5, by reference to the trends in international lending, levels of foreign investment and foreign exchange turnover.

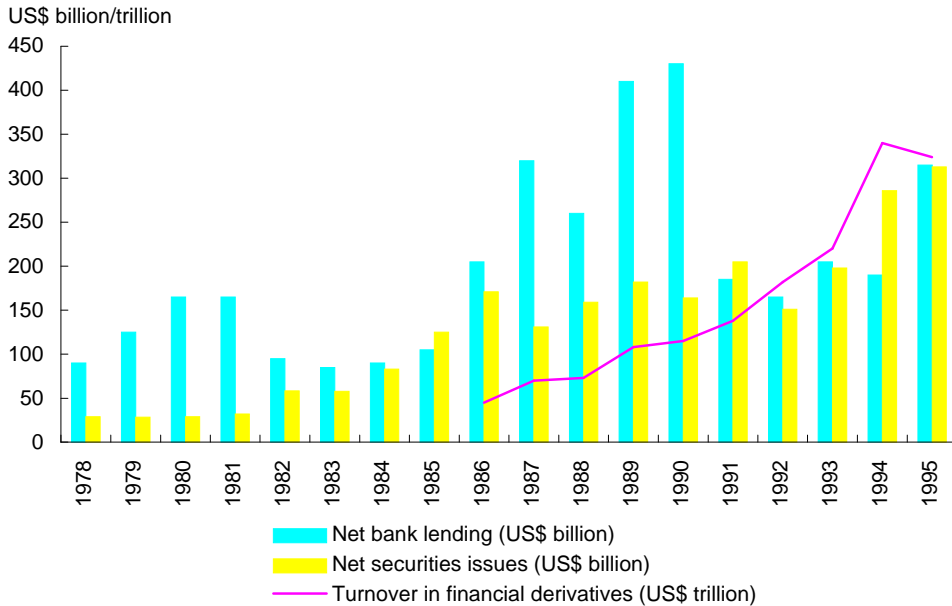
3.11 As shown in Figure 3.2, international bank lending, net issues of international bonds and euronotes and the value of derivatives traded on organised exchanges around the world all increased over the period 1986 to 1995. Notwithstanding the general upward trend, Figure 3.2 shows a noticeable switch in finance from bank lending to direct securities since the start of the 1990s. In part, this reflects a general trend towards disintermediation¹ as the cost of direct finance has fallen. More importantly, the substantial fall from 1990 to 1991 in net bank lending (the first ever contraction in international banking aggregates) occurred as banks sought to strengthen their capital bases amid heightened perceptions of credit risks in financial markets and a cyclical downturn. In particular, banks perceived interbank activity at that time as yielding low returns but entailing high counterparty risks.² Apart from that major correction, which was an adverse reaction to unsustainable lending practices, international net bank lending has been increasing for most of the past 2 decades.

1 Disintermediation refers to an increase in direct relationships between the ultimate suppliers and users of financial services, and a decline in the use of intermediaries. An example is companies directly raising finance through the capital markets rather than using bank finance. See Gastineau, Gary L. 1992.

2 Bank for International Settlements 1992, p.159.

Upward Trend in International Financing...

Figure 3.2: Total International Financing 1978-1995



Source: Bank for International Settlements 1981, 1987, 1992, 1996.

3.12 The growth in foreign investment flows into Australia and Australian investment abroad (see Figure 3.3) indicate a rapidly increasing degree of integration with international markets. The importance of global markets as a source of funds and as a place to invest is readily apparent. All of Australia's 10 largest companies are listed on foreign exchanges.³ In respect of investment income, total income paid to foreign investors by the Australian private sector increased from \$8.2 billion⁴ to \$21.0 billion over the period 1985-86 to 1995-96. Investment income received by the Australian private sector from foreign sources increased from \$1.4 billion to \$6.9 billion over the same period.⁵

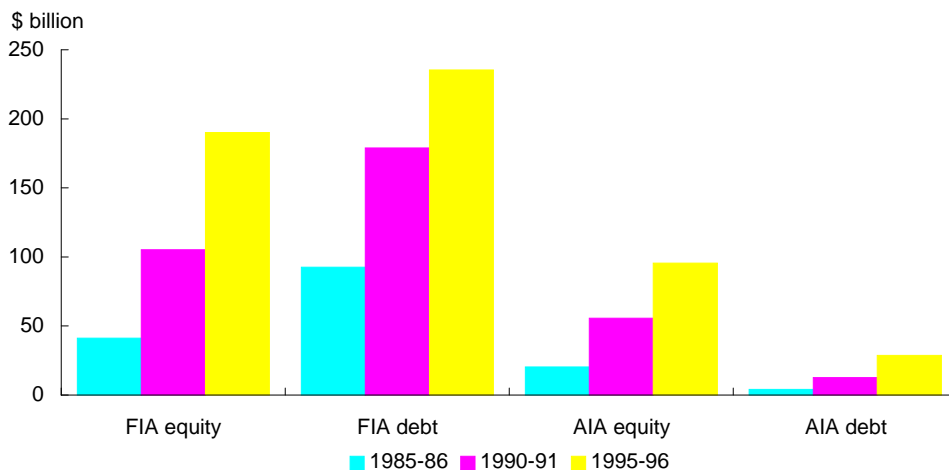
3 Allen Consulting Group 1996, p.98.

4 Note: \$ refers to Australian dollars.

5 Australian Bureau of Statistics cat. no. 5306.0 1996.

Increasing Investment into and out of Australia . . .

Figure 3.3 Foreign Investment in Australia (FIA) and Australian Investment Abroad (AIA)

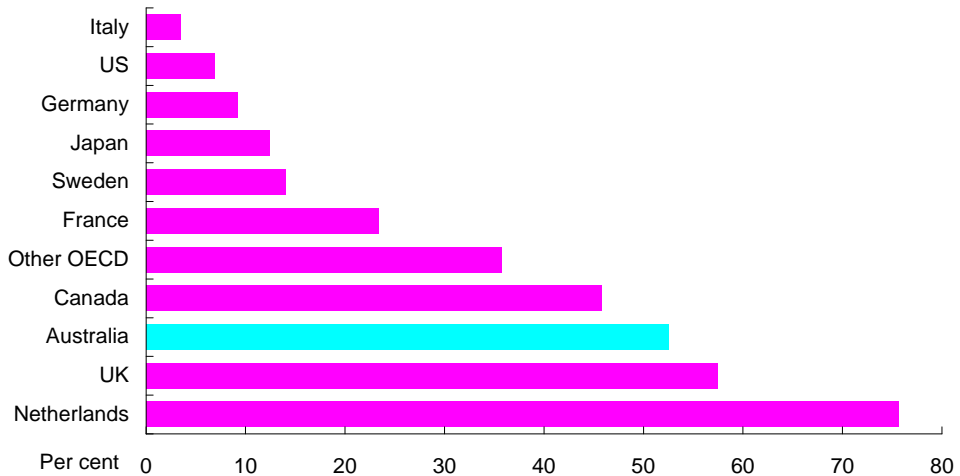


Source: Australian Bureau of Statistics, cat. no. 5306.0 1996.

3.13 At the wholesale level, Australian corporations are regular users of international financial markets. During 1995, borrowings in the international securities market by the Australian private sector totalled US\$6.1 billion, compared with only US\$1.2 billion of borrowings in the domestic market. At the end of 1995, total outstanding international issues of securities by the Australian private sector of US\$51.6 billion exceeded domestic private sector issues outstanding of US\$46.6 billion. Compared with other OECD nations, the Australian private sector is a relatively heavy user of international securities markets for funding relative to its use of the domestic securities market (see Figure 3.4). By international standards, the Australian corporate bond market is relatively small.

Australia's Reliance on International Markets . . .

Figure 3.4: Private Sector Borrowing in the International Securities Markets — International Securities as a Proportion of Total Securities Outstanding: End 1995

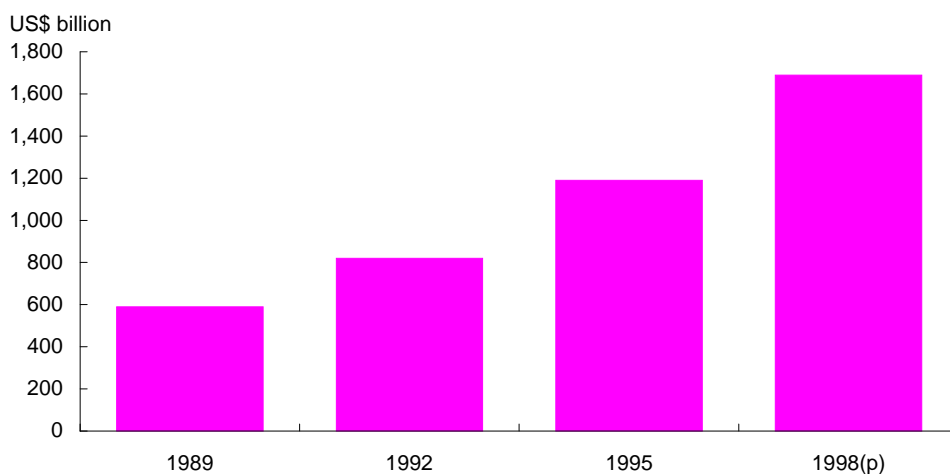


Source: Bank for International Settlements 1996.

3.14 Daily global foreign exchange turnover has also increased significantly since 1989 (see Figure 3.5). If similar rates of growth continue to prevail in the future, global trade in foreign exchange could reach US\$1.7 trillion per day by 1998.

Growth of Global Foreign Exchange Trading . . .

Figure 3.5: Estimated Daily Global Foreign Exchange Turnover 1989-1998 (projection)



Source: Bank for International Settlements 1996; and Inquiry projection.⁶

3.15 There is clear evidence that aspects of the financial system, such as the reinsurance market, operate globally. Reinsurance, by its nature, lends itself to spreading risks and operating globally. In fact, the reinsurance business is becoming concentrated into a small number of very large worldwide organisations. Four groups (Munich Re, General Re/Cologne, Employers Re/Aachener/Frankona and Swiss Re) account for more than 66 per cent of the premium income of the top 100 of the world's professional reinsurers. These organisations are expected to continue to play major roles in reinsurance as a result of, among other things, their global and well-diversified books of reinsurance business.⁷

3.16 More generally, the whole economy is becoming global in its outlook. Most Australian industries are now competing directly against foreign competitors. In the case of financial services, this competition takes

6 The 1998 projection is based on a simple average of the growth rates for the previous 2 periods.

7 Heffernan, P & Watts, R 1995.

various forms. First, foreign players are largely free to establish operations in Australia — for example, since the decision in early 1992 to allow additional foreign banks to enter Australia and allow foreign banks to operate as branches, the number of foreign banks operating as licensed banks in Australia has risen from 19 in 1992 to 32 in 1996.⁸ The ideas and approaches of local competitors are constantly under challenge from these new entrants. Secondly, Australian providers are increasingly looking to off-shore growth opportunities and are viewing such opportunities in foreign markets as critical to their future success.

3.17 Although global markets exist for large-scale corporate finance, the extent to which the financing needs of smaller companies and consumers is being met through global, rather than local, markets remains uncertain. In its submission to the Inquiry, the Reserve Bank of Australia (RBA) noted:

One view is that technological improvement is continually reducing the information costs associated with direct financing even for relatively small companies. An alternative view is that banks (or credit institutions more broadly defined) seem likely to retain at least that part of lending linked to the small and medium business sector where the practical difficulties of assessing creditworthiness are much greater, technological improvements notwithstanding, than for larger companies.

3.18 In summary, at the wholesale level financial markets operate globally, without regard to borders. However, there is no real evidence to suggest that global markets are extensive for smaller business or consumer financial services at this time.

Technology

3.19 Technological change has been a persistent factor affecting business decisions and the shape of markets in the financial sector and the economy as a whole. Systems for processing, communicating and storing information are part of the essential infrastructure supporting financial activities. As a result, technological advances in fields such as electronic processing and communications will continue to affect the financial sector.

8 Reserve Bank of Australia 1996, *Report and Financial Statements*, p.45.

3.20 Technology changes are often most visible in the retail distribution channels of financial institutions, but they also underlie much of the development of financial markets behind the scenes, such as more sophisticated and timely securities trading systems, electronic data interchange and high-value payments system clearing and settlement.

3.21 Many of the developments influencing the dynamics of the financial sector are not new ideas. The Internet, for example, has existed for over 25 years, stored value cards (SVCs) are more than 10 years old and the personal computer (PC) emerged in the late 1970s. The complex mathematical algorithms used in modern risk management systems have been known for many years, but were impractical in business applications until computer technology advanced sufficiently to harness their capabilities.

3.22 In the field of technology, four trends stand out:

- the falling cost of collecting, storing and analysing information;
- growth in communications capacity;
- improving accessibility; and
- developing technical standards.

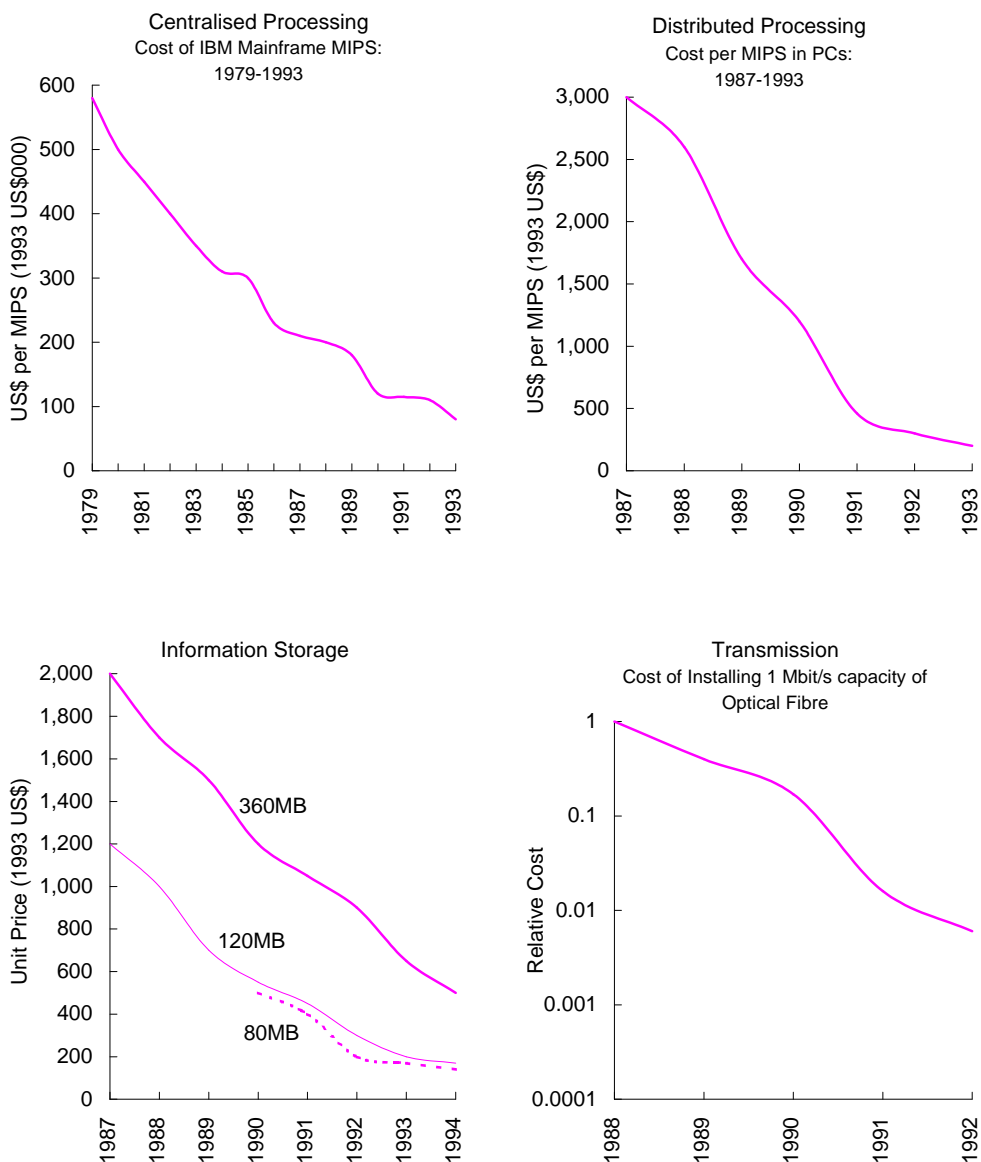
Falling Cost of Technology

3.23 Figure 3.6 illustrates the reduction over the past 15 years in cost associated with processing, storing and transmitting data. Between 1987 and 1993 the real cost of processing power in a personal computer dropped by a factor of 100. The cost of storing data has in the same time dropped approximately 20 fold, and the cost of moving data has dropped in real terms by a factor of 100.⁹

9 Deloitte Touche Tohmatsu International 1995.

The Falling Cost of Technology . . .

Figure 3.6: Costs of Processing, Storing and Transmitting Information



Source: Deloitte Touche Tohmatsu International 1995.

Growth in Communications Capacity

3.24 Communications capacity requirements are rapidly increasing. Telstra estimates that growth in capacity requirements from Internet usage alone will place significant demands on communications capacity. Telstra expects Internet usage to exceed telephony traffic by the year 2000. At the same time, the relative cost of installing increased communications transmission capacity is falling rapidly (see Figure 3.6).

3.25 The capacity of the communications infrastructure or ‘width of the pipe’ is regarded by some as critical to the economy and an issue of national significance for government. It is argued that cable should be of sufficiently high capacity to carry, both into and out of households, the information required for real-time information exchange, such as Internet conversations.¹⁰

3.26 The land-based communications network will also be subject to competitive pressures from digital satellite broadcasting services from July 1997 when the telecommunications market in Australia is liberalised. Such services potentially provide a means of entry for new competitors in the Australian market for high-speed data services, mobile telephone services and broadcast services.

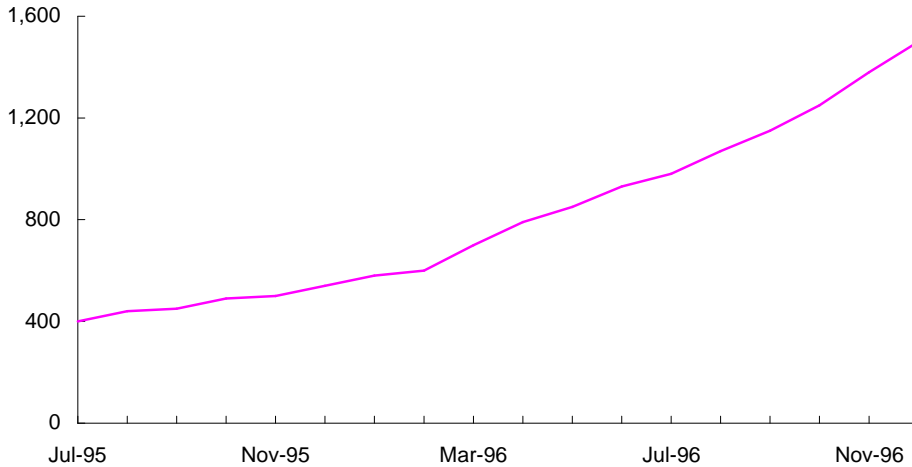
Improving Accessibility

3.27 Growth in the use of the Internet is illustrative of the possibilities of widespread delivery of financial services in the near future by telecommunication channels (see Figure 3.7).

10 Committee discussion with Forrester Research Inc., United States, 20 September 1996.

Growing Use of the Internet . . .

Figure 3.7: Number of Australian Internet Users ('000)



Source: Standard & Poors Industry Profile, reproduced in Australian Bankers' Association, Submission No. 126 to the Financial System Inquiry, p.63.

3.28 In Australia 40 per cent of the population owns a PC, but modem ownership is only 6 per cent. (A modem is a translation device which allows a PC to receive and transmit data over communications networks.) In the United States the penetration rate of PCs into households is similar to that in Australia but over half of PCs are equipped with modems. It is expected that by the year 2003 over 60 per cent of households in the United States will own a PC, and modem ownership will increase to 50 per cent.¹¹ Increased affordability, ease of use and usefulness of electronic online services are expected to lead to high rates of growth in what is now a relatively small segment of the market.

3.29 Other technologies such as interactive television, telephone systems and proprietary systems including video kiosks, enhanced ATMs and EFTPOS are already affecting the retail services offered by financial institutions around the world. As noted in Chapter 2, ATMs and EFTPOS are already growing rapidly relative to other payment mechanisms. In the short

¹¹ Bank Administration Institute & Boston Consulting Group 1995.

to medium term, it may well be that the dominant technologies will be those that we are more familiar with now, such as telephone banking, ATMs and EFTPOS, rather than PC-based banking.¹²

Developing Technical Standards

3.30 A key issue identified in submissions was the setting of communications and electronic commerce standards by government, and agreement within industry of common standards before electronic commerce solutions can be implemented.

3.31 In its submission, the ANZ Banking Group noted that the development of electronic commerce using the Internet will be affected by progress made in developing a regulatory environment to address the legal status of digital signatures, introducing a national digital signature system and establishment of a national public key infrastructure with regulatory backing. Advance Bank put the view that the current inability to clarify essential legal aspects of electronic commerce is a significant inhibitor to its competitive position in Internet banking. These sentiments were reinforced by overseas views that standardisation is required to give impetus to electronic commerce, with government in some cases having to take a major role in setting and continually reassessing the appropriateness of standards.¹³

3.32 In Australia, work towards this has commenced, with the Australian Securities Commission (ASC) initiating an Electronic Commerce Project in late 1995, Standards Australia issuing a draft report recommending the establishment of an infrastructure to meet the need for a credible digital signature system,¹⁴ and work by the Commonwealth Attorney-General's Department to facilitate legal recognition of electronic commerce.

3.33 In summary, technological innovation has led to a communications and processing infrastructure with declining costs, increased power and

12 Committee discussions with the European Monetary Institute, 18 September 1996, and the Royal Bank of Canada, 19 September 1996.

13 Committee discussion with Forrester Research Inc., United States, 20 September 1996.

14 Australian Payments Clearing Association, Submission No. 33 to the Financial System Inquiry, Appendix 6 provides some detail on the Standards Australia work in this area.

capacity, and greater accessibility. In relation to the financial system, these factors have manifested themselves in key areas discussed later:

- the emergence of new players in markets;
- changing distribution channels; and
- new products such as SVCs.

An emerging issue for government is the role it should play in setting technical standards for communications and electronic commerce.

Consumer Needs and Demands

Increased Customer Awareness

3.34 Several trends are likely to influence the nature of consumer needs and demands in respect of financial services.

3.35 First, consumers will remain value conscious in the future. The increasing range of financial services will promote a greater level of competition. There is also some evidence that, as institutions begin to price services more explicitly, customers are coming to the view that the banking culture is complex, impersonal, ‘user pays’ oriented and cut-throat.¹⁵ Services will therefore need to be priced competitively or consumers will switch to available substitutes. A corollary of this is that consumers will be less tied to a particular financial service provider and may make use of a range of providers at any one time in order to get the best value for money. This is also likely to be the case for small businesses as the need to minimise cost becomes increasingly pressing. Such switching has not always been possible in the past, with financial service providers often imposing ‘exit’ fees on consumers (eg charges for early discharge of loans).

3.36 The Australian Consumers’ Association noted in its submission that the increasing range of products and services on offer has added to the complexity and difficulty of making product comparisons and, as a result,

15 CUSCAL Research 1996, included with Credit Union Services Corporation (Australia) Limited, Submission No. 162 to the Financial System Inquiry.

consumers find it difficult to take advantage of the increase in choice. As the costs to consumers of obtaining quality information about financial services fall (eg through the Internet and other networks and through the proliferation of information and advice services), consumers will become increasingly aware of their options.¹⁶ In turn, this will serve to reinforce the trend towards increased price sensitivity.

3.37 It appears that customers are becoming increasingly aware of the wide range of financial services on offer, and are more inclined to 'shop around' to select products which offer the best value, at least for major transactions. For example, in 1995-96, 28 per cent of loans for established houses were refinanced, compared with 8 per cent in mid 1991.¹⁷ In addition, the proportion of non-interest-bearing accounts at Australian banks has declined from 18.1 per cent of total bank deposits in 1982 to 5.2 per cent in 1996 as depositors have sought a greater return on their funds.¹⁸

3.38 Secondly, as consumers become increasingly accepting of new technologies and become more informed about their options, they will become more sophisticated in the way they manage their financial affairs. Accordingly, they will demand sophisticated financial services which make use of state-of-the-art technologies and financial management techniques. Ultimately consumers will expect financial services to be available 'anywhere, anytime and anyhow'.

Take-up of New Technology

3.39 Consumer demand is a major factor in the development of new technology. For example, the Bank of Melbourne believes that it is the demand for, and acceptance of, new services rather than the supply of technological and product innovations which will drive the rate and pace of change.¹⁹

16 See United States Federal Trade Commission Staff 1996.

17 *Reserve Bank of Australia Bulletin*, June 1996.

18 *Reserve Bank of Australia Bulletin*, various editions.

19 Bank of Melbourne, Submission No. 218 to the Financial System Inquiry, p.14.

3.40 Financial service providers have shown a reluctance to invest in new technology unless it is reasonably certain that consumers will accept it. According to McKinsey & Company, the consumer acceptance factor is likely to result in ‘waves’ in the take-up of technological innovation. They identify 3 likely waves in the development of multimedia financial services. These are shown in Table 3.1.

Table 3.1: Three Waves of Development in Multimedia Services

Primary Consumer Benefit Driving Change		
Access/Convenience	Information/ Financial Control	Price/Convenience & Value Added Services
1990-1996: Wave One ATMs and telephones	1994-2005: Wave Two PCs and online services	2000+Wave Three E-Cash and interactive video
Wide consumer acceptance of remote delivery ♦ Telephone ♦ ATMs ♦ Mail Proliferation of electronic payment vehicles and clearing/settlement networks ♦ Debit ♦ Credit ♦ Electronic bill payment	Large segment of customers routinely accessing information on-line Financial management software/gateways gain popularity Electronic bill presentment and payment services become standard Gateways and intelligent agents spur wave of ‘electronic commerce’	Electronic cash and smart cards displace cash and checks for a significant proportion of transactions Real-time, interactive two-way video financial services gain wide acceptance Interconnectivity among various payments/information networks (credit, debit, e-cash) allows funds to be easily transferred among various accounts

Source: McKinsey & Company, reproduced in Australian Bankers’ Association, Submission No. 126 to the Financial System Inquiry.

3.41 The time frames of this progression are based on the presumption that:

- most of the technology required to drive each wave has already been developed;
- the length of each wave will depend on the acceptance of new technologies among consumers and reduction in technology costs; and
- waves and changes in the delivery of financial services are building and reinforcing changes in the delivery of all products and services.

Customer Demographics

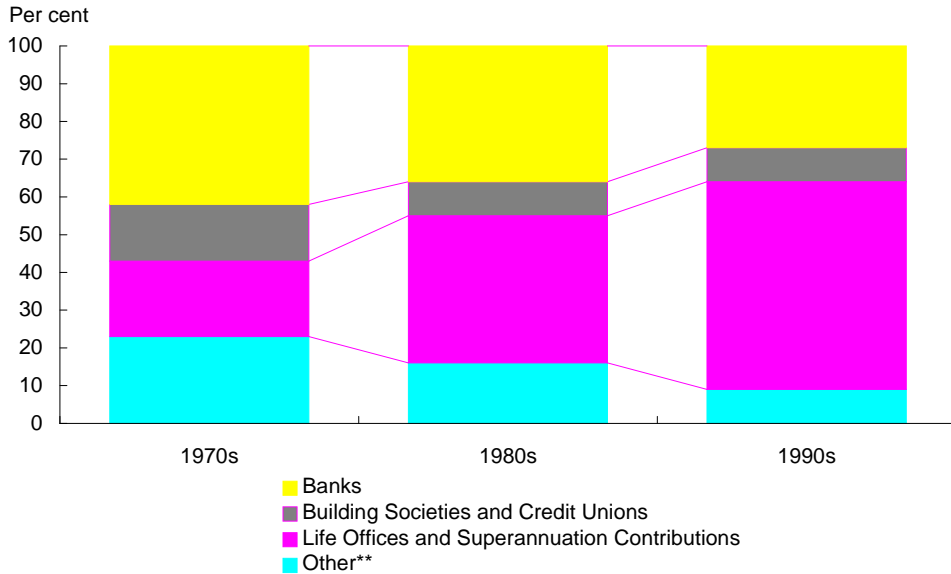
3.42 Consumers are not a homogeneous group with a single demand set. In particular, demographic trends need to be considered. It is estimated that, by the year 2005, 30 per cent of the Australian population will be over the age of 50. This compares with 26 per cent in 1995.²⁰ Older generations are generally less accepting of new technologies. However, given the increasing number of ‘anywhere, anytime and anyhow’ consumers and the strong incentives for businesses to adopt cheaper operating methods, it may not be too long before such acceptance becomes widespread.

3.43 The ageing of the population has especially affected the overall pattern of household savings, as consumers (encouraged by retirement incomes and taxation policy) are shifting savings into long-term investment vehicles to provide for their retirement (see Figure 3.8). A similar shift has occurred in other developed countries. For example, in the United States, currency, traditional cheque and deposit accounts fell from 33 per cent of household assets in 1980 to 18 per cent in 1994 (see Figure 3.9).

20 Westpac Banking Corporation, Submission No. 90 to the Financial System Inquiry, p.47.

Shift of Household Savings Away from Deposits . . .

Figure 3.8: Flows of Australian Household Savings*

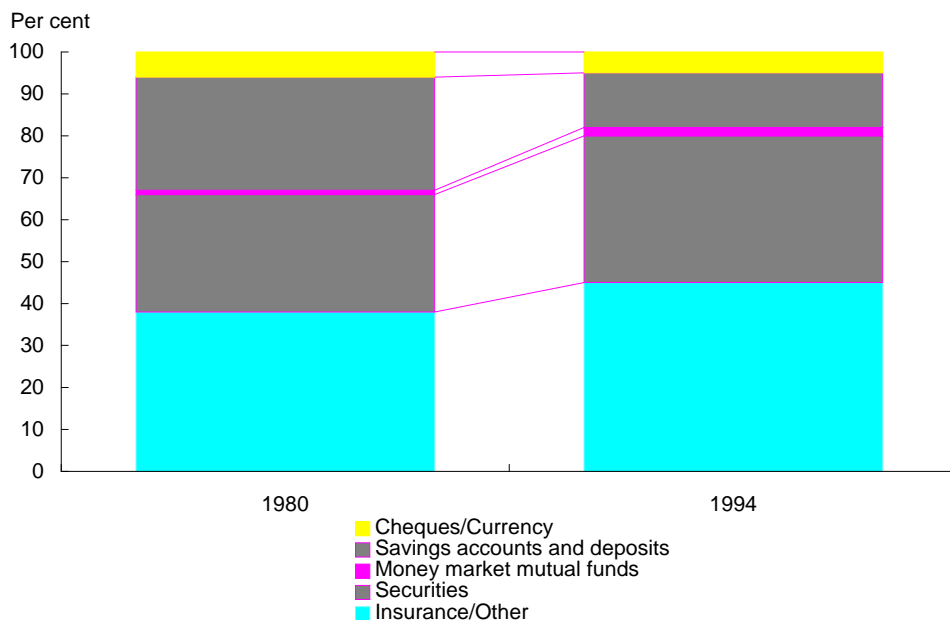


* Includes Unincorporated Enterprises.

** Includes Government Securities, Debentures, Shares and Unit Trusts.

Source: Reserve Bank of Australia 1996, *Report and Financial Statements*, p.53.

Figure 3.9: US Household Savings
(Total Financial Assets of US Individuals)



Source: Bank Administration Institute and McKinsey & Company 1996, p.13.

3.44 In summary, value-conscious consumers are becoming more sophisticated and increasingly willing to seek out the least costly or most appropriate financial service for their particular needs. They can be expected to grow more accepting of new technologies over time, and the ageing of the population, in particular, has given rise to a substantial shift in household savings away from deposits into longer-term investment vehicles. In short, Australian consumers are converting from ‘savers’ to ‘investors’.²¹

21 Bankers Trust Australia, Submission No. 136 to the Financial System Inquiry, p.7.

Financial Innovation

3.45 Innovation involves exploring opportunities for creating and developing new markets, new products and new ways of doing business. Innovation in turn drives change. The extent of innovation which occurs in a particular market is related to the nature of competition in that market.

3.46 In general, a high degree of competition (both price and non-price) between suppliers to a market is associated with a high level of supplier innovation or dynamism in terms of:

- the products and services offered and the way in which they evolve continually to meet the changing needs of consumers (such innovation may take the form of suppliers attempting to differentiate their products or services from those of competitors or to develop more cost-effective products); and
- the production and distribution methods used (innovative suppliers make use of state of the art methods where these represent the most efficient means of production and distribution).

3.47 Conversely, in markets with low levels of competition, suppliers have less incentive to innovate in general. Such markets tend to be characterised by entry barriers which serve to reduce contestability. In these markets, innovation is less likely to act as a powerful driver of change.

3.48 In terms of the financial system, competition has increased in many of the markets for financial products and services since deregulation. In addition, financial product and service providers have become more innovative, as evidenced by the development of a range of innovative financial instruments.²²

3.49 Opportunities for innovation often arise as a result of government policy and consumer demand. For example:

- opportunities to develop alternative products to term deposits at traditional deposit-taking institutions, such as cash management

22 Argy, Fred 1995, p.42.

trusts, arose partly as a result of the extensive regulation of traditional banking at the time;

- opportunities to develop retail transaction networks such as Visa and Mastercard arose when innovators identified consumer needs for a widely-accepted retail transaction facility; and
- opportunities to develop derivatives emerged through identification of specific needs to manage risk and adjust exposures quickly.

3.50 In relation to consumer financial services, the securitisation of home loans, which involves borrowing in corporate debt markets against a bundle of secured housing loans, is the most striking recent example of innovation driving change. (Securitisation is a general financing technique used to transform illiquid assets into securities tradeable in secondary markets, and is discussed in more detail in Chapter 5.) Consumers and government have played a central role in facilitating this innovation.

3.51 As noted above, government retirement incomes policy has promoted a shift in household savings away from traditional deposit-taking products towards life office and superannuation products and other investment-linked assets. This has in turn increased the availability of funds (via corporate debt markets) at relatively lower cost for the purposes of loan securitisation.

3.52 Aside from adjusting their savings choice in response to government policy, consumers have been central to the securitisation trend in retail financial services through their readiness to accept securitised home loans. To gain market share, mortgage originators offered an improved product relative to traditional mortgage products by lowering fees and loan rates of interest. Mortgage originators are estimated to have captured approximately 8 per cent of the new mortgage market since the early 1990s.²³

3.53 An advantage of securitised home loans lies in the ability of the securitisation firms to obtain funds at lower total cost relative to traditional sources of funds (eg deposits) and therefore to offer more attractive lending rates. Previously, such access to debt was intermediated predominantly by

23 *Reserve Bank of Australia Bulletin*, June 1996, p.2.

banks. However, the market now rates the credit risk associated with lending against an asset base of secured loans as being similar to, or better than, that of lending against bank assets, thus creating opportunities for securitisation firms.

3.54 Another direct consequence of financial innovation is the rapid growth of trading in derivatives. This is an evolutionary process, in that derivatives created for a particular purpose have spawned other derivative products which refine or further improve the ability to manage risk. For example, the Sydney Futures Exchange (SFE) introduced a 10-year Treasury Bond futures contract in December 1984, 10-year Treasury Bond options in November 1985, and 10-year Treasury Bond overnight options in November 1993. These contracts have grown and in 1995 constituted 28.7 per cent of the total volume of listed contracts on the Exchange.²⁴ New derivatives will continue to be devised to meet emerging needs (eg futures contracts for electricity).

3.55 The market implications of financial innovation, in particular securitisation, as a driver of change are discussed below.

Market Implications

3.56 What impact are these forces having on the Australian financial system? How are these forces being played out among the system's participants? This section discusses the implications for these changes on:

- wholesale markets;
- financial service providers;
- products; and
- distribution mechanisms.

3.57 The pace with which and, in some cases, the direction in which these forces will move the financial system are uncertain. The critical issue from

24 Sydney Futures Exchange 1995.

the Inquiry's perspective is whether the regulatory framework is flexible and robust enough to cope with the range of possible developments.

3.58 One consistent theme that emerges is that these forces are leading to the creation of dynamic markets to satisfy customers' needs. The financial system has traditionally been based on long-established institutions providing a full range of services to their customers. The future appears to be one in which customers will choose products from a range of suppliers, both specialists offering particular products and general providers offering a range of products. It is possible that some of the options will be global, rather than restricted to domestic suppliers.

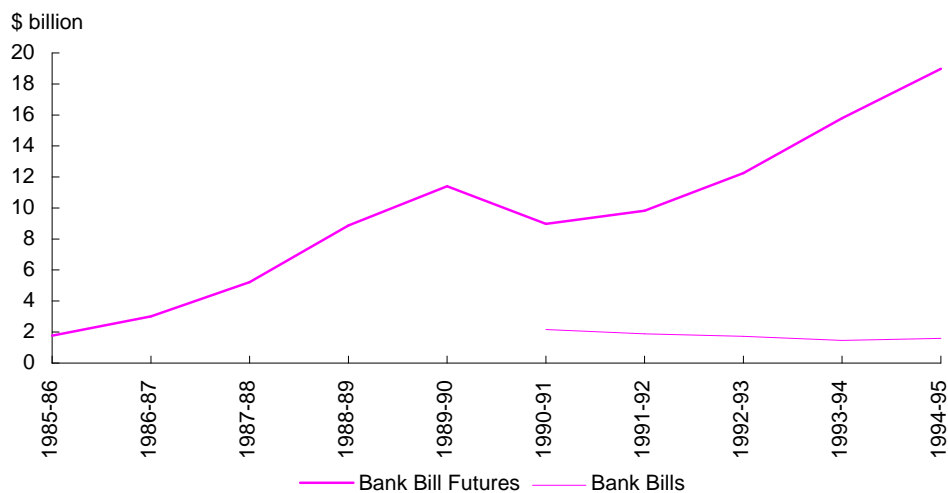
3.59 The creation of dynamic markets may also extend to the internal operations of financial institutions. Instead of institutions providing all services in house, many services may be outsourced from highly competitive specialised market suppliers.

Growth in Wholesale Markets

3.60 Since the mid 1980s, there has been a substantial change in the structure of the financial markets, most noticeably in the growth in use of wholesale instruments (see Figures 3.10 to 3.12). This growth has been fuelled by financial innovation, particularly in the development of derivative instruments and the growth of securitisation, and by the shift in household savings to investment vehicles. Daily average turnover in bank bill futures rose from \$1.8 billion in 1985-86 to \$19 billion by 1994-95 (see Figure 3.10), while daily turnover in bond futures rose from \$0.3 billion to \$6 billion over the same period (see Figure 3.11). In many markets, the daily turnover of derivative instruments exceeds the turnover of the underlying physical asset.

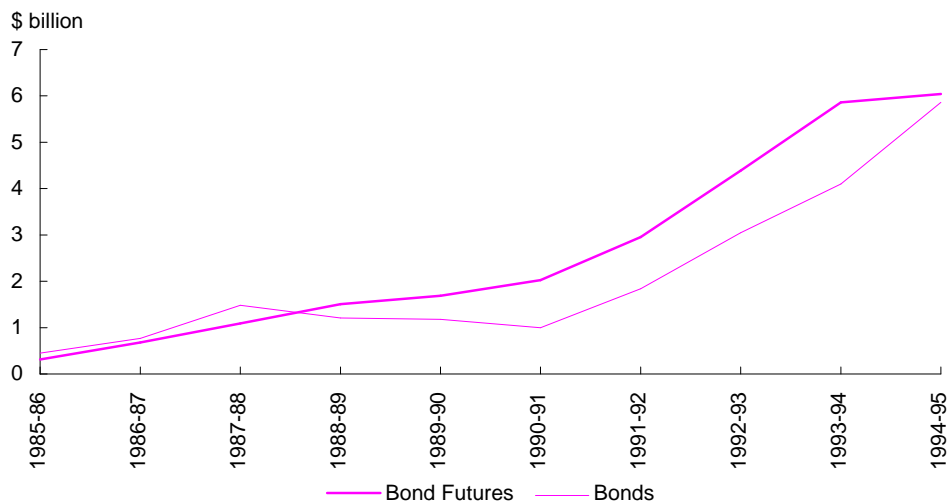
Financial Market Turnover Continues to Grow . . .

Figure 3.10: Average Daily Turnover in Bank Bills



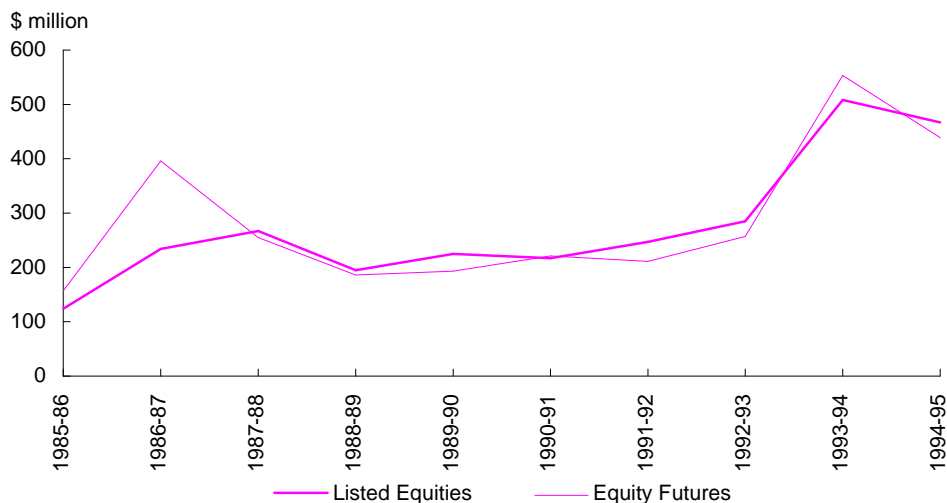
Source: Foster, R.A. 1996.

Figure 3.11: Average Daily Turnover in Government Securities



Source: Foster, R.A. 1996.

Figure 3.12: Average Daily Turnover on Australian Equities Markets



Source: Foster, R. A. 1996.

3.61 The development of the wholesale markets has been a significant factor in providing capacity for the entry of new competitors, and allowing the unbundling and repackaging of financial services products. These effects are discussed in more detail below.

Financial Service Providers, New and Old

3.62 Australian financial service providers are now facing a range of new participants in the market:

- there are specialist providers which perform a single function within the production chain or which provide a particular financial product or service to the customer; and
- some existing general providers are diversifying their businesses into other financial services and products, or forming large national or multinational conglomerates which have the capacity to meet all of their clients' financial needs.

In this environment, it may become increasingly important to trade on an identifiable brand name in order to establish a presence, especially at the retail end of the market.

Specialist Providers²⁵

3.63 At the production level, a number of functional specialists are already evident. GiroPost performs a range of traditional bank branch functions, such as effecting payments and accepting deposits, on behalf of other institutions. Banks with relatively few branches may use giroPost as a substitute, at a significantly lower cost and with broader reach. Similarly, many banks, having centralised various processing functions in a particular location rather than dispersing the function throughout the branch network, may now outsource some of those functions (perhaps overseas).

3.64 While wide-scale outsourcing in Australia has not yet taken place, almost all submissions which addressed this issue acknowledged that outsourcing could substantially increase. The RBA summarised the position with the observation that ‘competition among banks might force them to outsource processing and communications to the specialised service providers’.²⁶ Outsourcing and sharing of back office operations are more advanced overseas. In Canada, for example, the 5 leading retail banks have formed 2 joint venture companies to ‘co-source’ selected activities. One of these companies has indicated that it will offer outsourced services to competitors.²⁷

3.65 Functional specialists are emerging in other aspects of the financial system, as participants discover that by outsourcing functions they can take advantage of the savings that economies of scale make possible. The complexity of the payments system and the need to settle a burgeoning number of transactions quickly and securely provide potential for greater involvement of software companies which have the expertise to develop systems solutions to complex processing problems. Specialist credit card processors, such as GE Capital, are entering the Australian market by purchasing existing credit card operations. Distribution mechanisms are changing with the increasing use of the Internet and the arrival of other

25 In this section, the term specialist provider is used to refer to either:

- (a) a firm which provides specialist production type services to a financial institution, such as specialist cheque or loan processing services; or
- (b) a firm which provides a particular financial service or product to retail customers, such as a specialist home loan provider or credit card provider.

26 Reserve Bank of Australia, Submission No. 111 to the Financial System Inquiry.

27 *American Banker* 1996.

advanced direct selling technologies, such as interactive television. The telecommunications companies, as owners of the 'pipeline' through which these services will be delivered, will be especially important participants in the financial system in the future.

3.66 At the retail level, customers are becoming increasingly price conscious and demanding about their financial services needs. Many services, previously offered as a package, are being unbundled and offered separately, providing the opportunity for them to be priced more accurately. This also encourages product specialists to enter the market, as the entry costs for a specialist provider in a particular segment are typically much lower than for wider-scale entry.

3.67 In Australia, the emergence of product 'cherry pickers' (ie competitors who selectively target only the most desirable products or customers) has been particularly pronounced in selected home loan products funded directly in the marketplace through securitisation. This has been partly due to a low and stable interest rate environment, which has seen a wider spread between lending rates and the underlying wholesale rate than the spread which exists between the wholesale rate and deposit rates. In a high interest rate environment (where the relative size of spreads could be reversed) the trend towards securitisation may slow. Nevertheless, securitisation seems to be a growing feature of the current environment.

3.68 The development of wholesale markets has resulted in a more transparent view of product economics, as the components of a product can be disaggregated and priced individually. Developments in technology have also improved participants' ability to price services and manage risk.

3.69 A guide to the future in this area might be gleaned from overseas developments. In the United States, new entrants are challenging the position held by traditional full service competitors in the retail credit market. For example, 4 of the top 10 United States mortgage originators and 6 of the top 10 credit card issuers are specialist providers (see Table 3.2). By 1996,

specialist credit card providers represented 40.7 per cent of total United States credit card receivables, up from 26.5 per cent in 1992.²⁸

Emergence of Product Specialists in US Markets . . .

Table 3.2: United States Personal Financial Services Market (1995)

Top 10 US Mortgage Originators	Top 10 Credit Card Companies*
Norwest Mortgage	Citicorp
Countrywide Funding	Discover
Fleet Mortgage Group	MBNA America
Prudential Home Mortgage**	First Chicago Corp
Chase Manhattan	AT&T Universal
Chemical Bank	First USA
GMAC Mortgage Group	Household Credit
Nations Bank	Chase Manhattan
Bank of America	Chemical Bank
North American Mortgage	American Express

Coloured type indicates product specialist.

* Ranked by level of outstandings.

** Subsequently acquired by Norwest Mortgage.

Source: *Inside Mortgage Finance* 1996; Nilson, H Spencer 1996.

General Providers — Convergence and Conglomeration

3.70 Convergence refers to an existing financial service provider diversifying its business to offer a broader range of financial services, such that its business begins to encroach on areas traditionally the preserve of other financial institutions. For example, in the United States, mutual funds (the equivalent of managed investment funds) offer online financial services, credit cards, cheque and deposit accounts, previously the domain of banks and thrifts. In Australia, banks are becoming important channels for the distribution of insurance products, with the banks' share of single-premium

28 *Card Industry Directory* 1997.

(individual and group) insurance products increasing to 37 per cent of all policies sold in 1995.²⁹

3.71 Conglomeration, which commonly is achieved through the merger of 2 institutions operating in different parts of the financial system, seeks to take advantage of economies of scope, a wider customer base and customer loyalty to cross-sell financial products. In Europe, where there are relatively few restrictions on mergers between financial service providers, the most common combination has been insurance and banking groups. A variety of other conglomeration strategies may be employed increasingly in the future, especially if driven by consumer responses to different brand strategies.

3.72 The degree to which Australian financial institutions are diversifying into all areas of the Australian financial system is highlighted in Table 3.3.

29 Estimate obtained from the Insurance and Superannuation Commission, derived from Insurance and Superannuation Commission Life Insurance Group, *Quarterly Statistical Bulletin*.

Australian Institutions are Diversified . . .


Table 3.3: Assets of Financial Conglomerates by Industry Type — 1994-95


Groups led by:	Financial Intermediaries				Insurers		Friendly societies	Other managed funds*	Stock brokers	Futures brokers	Non-financial enterprise
	Banks	Building societies	Other	Life	General	Health					
Banks											
Advance Bank											
ANZ											
Bank of Melbourne											
Bankers Trust											
Bank West											
Barclays Bank											
Citibank											
Commonwealth Bank											
Hongkong Bank											
Macquarie Bank											
Morgan Guaranty											
National Australia Bank											
NatWest Markets											
St George Bank											
State Bank SA											
Westpac											


Table 3.3: Assets of Financial Conglomerates by Industry Type — 1994-95 (Cont.)


Other	Financial									
NM Rothchild										
SBC Australia										
Schroders Australia										
Insurance										
AMP										
Colonial Mutual										
GIO										
IOOF**										
Lend Lease Corporation										
Mercantile Mutual										
National Mutual										
NRMA*										
Prudential										
Suncorp										

Notes: * Includes non-life superannuation.
 ** Selected financial conglomerates, which are not in the largest 30 Australian financial institutions.

 More than 50% of assets managed on Australian books

 25% to 50% of assets managed on Australian books

 0% to 25% of assets managed on Australian books

 Not active in this area

Source: Council of Financial Supervisors 1995.

Identifiable Brand Name

3.73 As the landscape of financial service providers changes, at the retail level it will become increasingly important to establish or use an identifiable brand name in order to maintain a customer base. In the United States and Europe, companies which have built up a strong brand name outside the financial system, such as Marks & Spencer, Virgin Direct and AT&T, are using the brand name and their customer base to establish a presence in aspects of the financial services industry. The importance of a strong brand name appears to be especially necessary where services are offered by remote means, such as the Internet. In addition, existing institutions with strong brand names may be able to use them as a means of holding market share against new lesser-known entrants.

3.74 In Australia, major companies outside the financial system are beginning to use financial products as a means of broadening their customer base. General Motors (GM) and Telstra in recent times have entered the credit card market by branding certain credit cards and offering user discounts on products supplied by them. At present, this use of branding is intended primarily to expand the entity's core business outside the financial system (ie the business of making motor vehicles in GM's case), rather than to establish a core business within the financial sector.

Products

3.75 It is not envisaged that the functions performed by financial products will change significantly in the future. Instead, it will be the design of products which will change, to provide greater utility, convenience, speed and personalisation. New products will be characterised by their greater sophistication and tailoring according to consumer preferences. Consumers will be able to select from a range of like products offered by a range of suppliers, and put together a package (or have an intermediary put together a package) that best suits them. Products are likely to be priced more explicitly according to the costs of providing them, decreasing the potential for cross-subsidisation.

New Products and Services

3.76 It is possible that the ultimate financial product could take the form of a financial package tailored specifically to meet the consumer's individual needs in terms of convenience, sophistication and price. Whereas today institutions offer a full range of in-house financial services, the combination of products might be selected from a range of suppliers, both domestic and international, and packaged by a financial adviser. The technology required to bring such convenience and functionality to the retail sector is already available in some cases, or will be shortly.

3.77 Judging from the United States experience, consumers may well have an appetite for this type of service. For some years Intuit Inc. has offered its customers software which is now used by more than 9 million consumers and businesses. It allows customers access to a wide range of bank and investment products via the Internet, through its partnerships with 14 of the top 20 banks in the United States, 2 major discount brokerage firms and American Express.

3.78 Trends toward such packaging are already evident at a basic level in the form of products offering combined savings, housing loan and transaction account systems.

3.79 In time, customers may be able to tailor products, according to their preferences, on-screen. For example, derivative products may be made available which are designed to hedge against risks such as income loss, as specified by the consumer, thus producing an individual insurance contract. To enhance consumers' ability to cope with a greater range of products, electronic decision aids may be designed to search relevant databases for product information and present the consumer with products meeting criteria specified by the individual. Alternatively, such aids might be used to design a banking and investment package, which could be adjusted automatically as prices change.

3.80 SVCs are a visible face of new technology. In 1994, there were 420 million SVCs on issue globally, of which 310 million were phone cards.³⁰

30 The Consumer Credit Legal Centre (NSW), Submission No. 124 to the Financial System Inquiry, p.6.

Extensive trials are under way around the world, including Australia, on SVCs with substantially improved applications. These include the ability to add, store and transfer value, and record transaction data. As the degree of consumer acceptance of these cards is unclear, it is impossible to predict accurately their rate of penetration. Focus group research studies have shown that there is limited interest by consumers in SVCs when there has been minimal exposure to their practical use.³¹

3.81 Some sources suggest that usage will increase greatly by the end of the century, and not only in financial services applications.³² National Australia Bank projects that by 2005 SVCs could represent 150 million cash into wallet transactions, or around 3 times the usage of ATMs for this purpose.³³

3.82 The issuance of cards by non-financial institutions raises the possibility of competition in the provision of related financial transactions from outside the financial sector.

Unbundling and Pricing of Products

3.83 The emergence of new competitors in a deregulated environment means that cross-subsidisation of products and customers is increasingly unsustainable for the following reasons:

- New entrants will cherry pick those products and customers where margins are greatest. For a traditional supplier, these will be products and customers generating a disproportionately large share of profits and in turn cross-subsidising unprofitable products and customers within the business.
- To prevent losing share, margins will be competed away in attractive product and customer segments. The losses in previously cross-subsidised operations are likely to be impossible to sustain over time. The consequence is a rise in the price (or reduction in

31 Australian Commission for the Future, 1996.

32 'Going for Olympic Gold Cards' 1996, an article in *The Economist*, March 30 1996, forecast that there would be 3.8 billion SVCs in use worldwide by the year 2000, of which the greatest number would be phonecards.

33 National Australia Bank, Submission No. 131 to the Financial System Inquiry, pp.2-3.

cost) of supplying previously loss-making products to customers, or the discontinuation of services to those segments of the market.

- In a deregulated environment, understanding customer profitability and the economics of distribution is the key to achieving sustainable returns. The speed with which existing competitors react will be a function of the success of new entrants in taking share in profitable market segments.

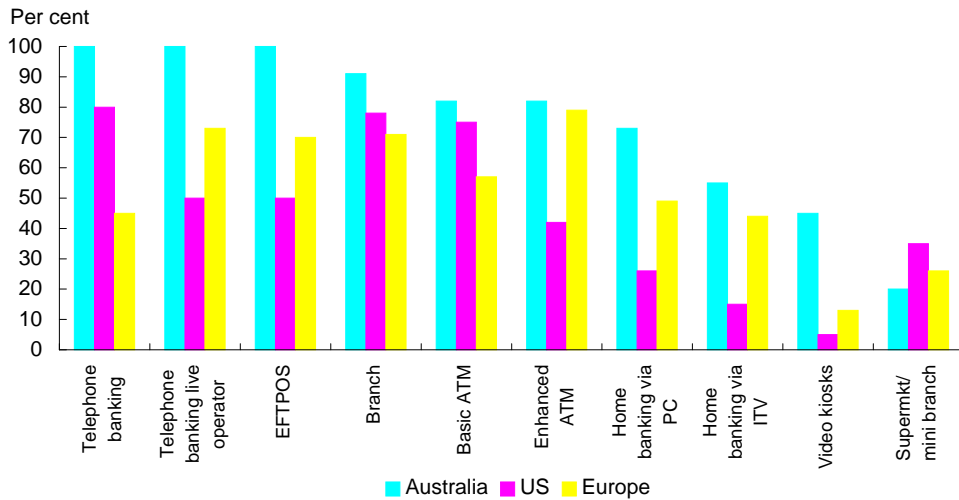
Alternative Distribution Channels

3.84 Traditional distribution channels in the financial sector are under intense pressure from changing cost structures due to technology. New technologies are being used to reduce costs and introduce new methods of distribution. In addition, overseas a nexus between the delivery of financial services and retailers is emerging. In the United Kingdom, major retailers such as Marks & Spencer and Tesco are emerging as financial service providers in their own right, utilising their existing customer contact and database skills. In the United States, banks such as Wells Fargo in California are moving to set up kiosks or other access points in supermarket chains. A number of Australian institutions are also opening kiosks at which a broad range of transactions can be carried out in supermarkets or shopping malls during extended hours, 7 days a week.³⁴ Figure 3.13, drawn from a survey of financial service providers in Australia, Europe and the United States conducted by the Boston Consulting Group, demonstrates how financial service providers in Australia and overseas believe they will be providing transaction services in the future. The figures represent the percentage of banks which rate the particular distribution channel as highly important over the next decade.

34 Westpac Banking Corporation, Submission No. 90 to the Financial System Inquiry, p.42.

The Future of Financial Customer Service . . .

Figure 3.13: Percentage of Banks Rating Channel as Highly Important Over the Next Decade



Source: Boston Consulting Group 1995.

Role of Branch Networks

3.85 New competitors without branch networks are able to use the wholesale markets to source funds, possibly at a lower total cost than branch-based competitors who rely on deposits as a substantial part of their funding base. These firms may be able to target traditional competitors' products where a branch presence is not required and where there is a high degree of product cross-subsidisation.

3.86 The focus of branches appears to be shifting from acting primarily as a physical collection point for savings to acting as a sales outlet for a wider range of financial services products (such as insurance and managed fund investments). As a result, the number of full service or traditional-style branches will reduce, and their format and location will change to reflect this increased emphasis on sales. Indeed, in many developed nations, including Australia, a decline in the number of branches of deposit-taking institutions has been occurring for some years — see Table 3.4.

Global Decline in Numbers of Bank Branches . . .

Table 3.4: Branch Restructuring of Deposit-Taking Institutions

Country	Total no. of Branches in 1995 ('000)	Branches per 10,000 of population	Year in which total no. of branches peaked	Percentage change from peak
Australia	6.7	3.8	1993	-6%
Belgium	7.8	7.9	1989	-8%
Canada	9.4	3.3	1994	—
Finland	2.1	4.2	1988	-39%
France	25.5	4.5	1987	-2%
Germany	37.9	4.9	1985	-5%
Italy	23.9	4.1	1995	—
Japan	25.7	2.1	1994	—
Netherlands	7.3	4.9	1986	-14%
Norway	1.6	3.8	1987	-27%
Spain	36.0	8.6	1995	—
Sweden	2.7	3.3	1980	-27%
Switzerland	3.8	6.3	1990	-10%
United Kingdom	16.6	3.0	1985	-22%
United States	69.6	2.7	1994	—

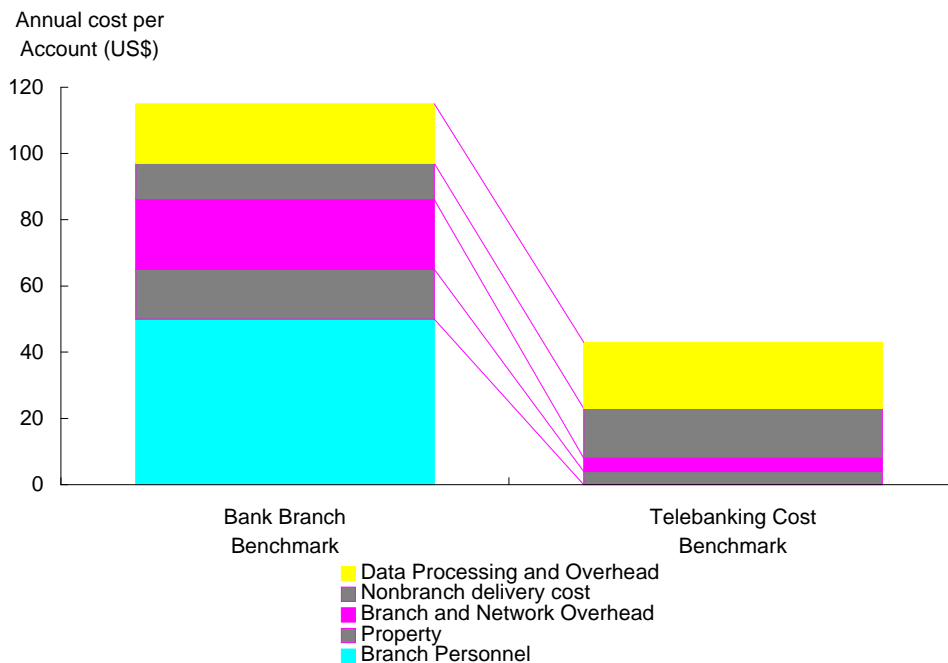
Source: Bank for International Settlements 1996.³⁵

3.87 Why this trend is developing is best shown by examining the cost profile of existing financial services with differing technology usage—see Figure 3.14. Traditional cost structures are dominated by property and labour cost. In situations where physical presence and contact are not fundamental to customer relationships, new services offer significant cost advantages to institutions, particularly if traditional services are not appropriately priced.

35 Population figures from United Nations, estimated for 1995. Branch numbers for United States, United Kingdom, Japan, Canada, Belgium, Finland, the Netherlands, Sweden and Switzerland are 1994 data.

Branches are a High-Cost Channel . . .

Figure 3.14: Indicative Costs of Transactions Through Different Channels



Source: Deloitte Touche Tohmatsu International 1995, p.16.

3.88 The reconfiguration of retail distribution networks does not necessarily mean fewer points of distribution. For example, the California-based Wells Fargo Bank currently operates 630 full-service branches. By the end of 1997, the network is planned to comprise over 1,000 points of representation, made up of around 330 full-service branches, 300 supermarket branches and a further 300 to 400 kiosk-style operations (comprising an ATM, telephone banking facilities and one teller). The total cost of the reconfigured network is expected to be 30 per cent less than the existing cost of the full-service network.³⁶

3.89 Relatively straightforward relationships, such as transaction banking, appear most amenable to new distribution mechanisms, while

36 Committee discussions with Wells Fargo, 16 September 1996.

services such as the provision of financial advice may continue to rely on personal contact.

Mobile Sales Forces

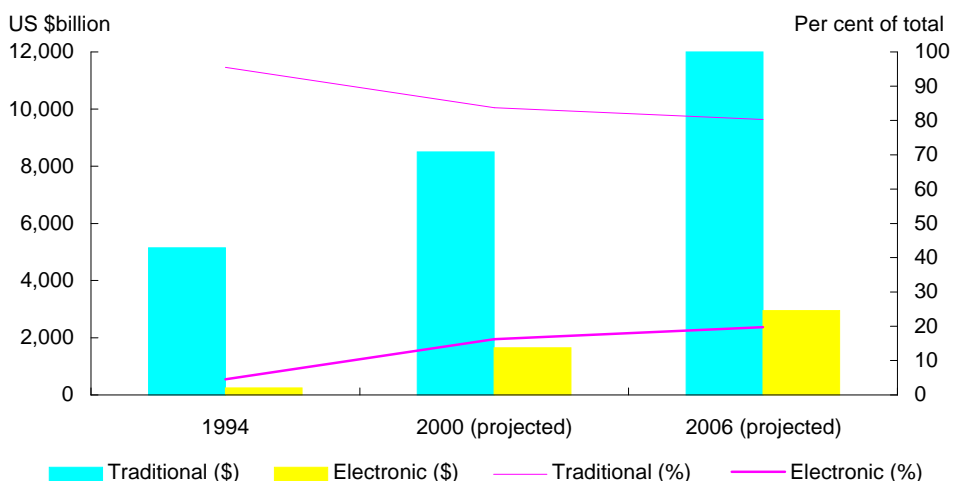
3.90 Conversely, banks and a range of new home loan lenders, including insurers, are increasingly using mobile sales forces and limited shopfront distribution channels to access borrowers. Around 100 mortgage managers now offer home loans in Australia.

Electronic Methods of Service Delivery

3.91 Electronic purchases as a proportion of total purchases are expected to accelerate from 4.5 per cent in 1996 to 19.7 per cent in 2006 (see Figure 3.15). The main projected components of electronic purchases are shown in Table 3.5.

Growth of Electronic Transactions . . .

Figure 3.15: Global Value of Traditional and Electronic Purchases and Per Cent of Total, 1994-2006 (projected)



Source: Holland, K. & Cartese, A. 1995.

Table 3.5: Global Value of Electronic Purchases, 1994-2006 (projected)

Electronic purchases via	1994 US\$ billion	2000 (est) US\$ billion	2006 (est) US\$ billion
TV/Cable TV	45	400	650
Business-to-business	140	450	650
Internet	—	600	1,250
Other online commerce	60	200	400
Share of all purchases	4.5%	16.2%	19.7%

Source: Holland, K. & Cartese, A. 1995.

3.92 In the United States, the Internet is proving to be an important distribution mechanism for securities and mutual funds. Various State regulators have procedures in place for approving the issue of electronic prospectuses. Brokerage firms such as Charles Schwab Inc. (one of the leading United States discount brokerage firms) offer access to share trading and mutual funds via the Internet and offer product discounts for electronic orders. In Australia, the ASC in September finalised its policy on the use of electronic prospectuses, opening the way for offers to be made by Australian companies by electronic means.³⁷

3.93 The impact on retail financial services of electronic distribution channels is unclear. Many submissions noted that retail financial services are already available via the Internet. Although none considered that this was currently a major channel in Australia, most indicated it was likely to grow. The Australian Competition and Consumer Commission noted:

*At this time, it is difficult to predict the extent to which the Internet will be used to market, sell and purchase financial products within and across borders. While some banking, insurance and financial products from abroad are being offered in cyberspace at present, it seems that for the immediate future, the Internet will serve more as a sophisticated marketing tool.*³⁸

³⁷ Australian Securities Commission 1996, Policy Statement 107.

³⁸ Australian Competition and Consumer Commission, Submission No. 181 to the Financial System Inquiry.

Conversely, the ASC noted that information networks could represent a more immediate force at the retail level:

Workshop members [of an information technology workshop conducted by the ASC in February 1995] considered that the growth in cross-border capital market activity that is occurring on information networks worldwide will reach retail levels of the Australian market within the next three years.³⁹

3.94 In summary, new distribution channels are developing as lower-cost alternatives to traditional methods. Falling costs of distribution are adding to the competitive environment, by facilitating the entry of new suppliers and providers.

Summary of Market Implications

3.95 The Australian financial system is in a period of great change. These changes are being driven by the globalisation of commerce, technological innovation, financial innovation and the drive to meet the demands of customers. As a result, new suppliers are emerging to unbundle and repack financial products. Global competitors will increasingly gain access to Australian markets, just as Australian suppliers will gain access to world markets. New products are being developed to meet specific customer needs. Further, participants in the financial system are finding that aspects of their production chain, such as branch distribution networks, loan processing and so on, can be outsourced to specialist providers at reduced cost.

3.96 The common feature of all these developments is that they lead to deeper markets for financial services, as a result of the entry of new participants in all or part of the system and the emergence of new products. Those markets in turn lead to greater cost efficiency as participants look to maximise their profits by concentrating on those areas in which they have competitive advantage, whether in packaging products, processing or service delivery. Overall, products become more capable of being broken down into components and repackaged. In this environment, products are

39 Australian Securities Commission, Submission No. 60 to the Financial System Inquiry.

commoditised and available through a broader range of suppliers among whom customers are able to shop around for the best deal.

Policy Challenges

3.97 The developments described above contain features which challenge elements of the current regulatory framework of the Australian financial system. For example:

- the barriers to entry must be low, to encourage the entry of new competitors and to foster competition in the market;
- the barriers to exit must also be low, as it may become increasingly common for providers or processors of financial services to exit on purely commercial grounds;
- customers may contract for financial products with firms which are only conduits to other suppliers which undertake part or all of the important financial obligations;
- more financial products may be offered seamlessly through complex alliances of non-affiliated entities, with legal obligations among them which are not transparent to the customer;
- many of the most effective suppliers of financial services may combine this business with other, diverse and much larger non-financial businesses;
- many competitive advantages may depend on sophisticated uses of customer data which pose ongoing choices for customers between their privacy and levels of service quality; and
- the lowest-cost delivery of services may depend on the legal recognition of purely electronic correspondence without paper back-up.

3.98 These examples illustrate that the law and its application by regulatory agencies are lagging many aspects of financial market development. There are numerous regulatory challenges involved in current and foreseeable changes to the financial system, identified here as a series of questions.

The Efficiency of the Domestic System and the Need to Achieve Global Competitiveness

- How efficient is the Australian financial system and to what extent if any does the existing regulatory framework contribute to any prevailing inefficiencies or distortions?
- In an environment where the Australian financial system is linked in many important ways to global markets, to what extent can the regulatory framework ensure that the Australian system remains safe, reliable and globally competitive?
- What specific opportunities exist for Australia to become a leading provider of financial services within the Asia Pacific region? What co-ordinated action may be necessary if Australia is to fully exploit these opportunities?

The Need to Minimise Systemic Risk

- To what extent could systemic risk originate from organisations operating outside the banking system? Is greater supervision of these organisations necessary to minimise systemic risk?
- To what extent does increasing globalisation expose the Australian financial system to systemic risk originating off-shore? How best can this risk be minimised? Is unilateral regulation of off-shore financial service providers who are accessible by Australian citizens and corporations possible or desirable? What is the scope for international co-ordination?
- To what extent must Australia's regulatory structure be harmonised with those of other jurisdictions?
- What government intervention is necessary to ensure that risk management skills of participants (with particular respect to derivative instruments) are adequate?

Focus of Regulation

- The blurring of traditional boundaries between financial service providers calls into question the current institutional basis of regulation. Similar products are being offered by a wide range of suppliers who are governed by different regulatory regimes. Does the emergence of new competitors operating outside existing legislative structures suggest that product-based regulation is more appropriate than institution-based regulation?
- In particular, the unbundling of products and production chains has led to a separation of sales from the manufacturing process. The entity selling the product is frequently an agent of another entity which performs critical tasks (such as the investment of funds under management by a professional funds manager). Does the regulatory framework need to be adjusted to recognise the growing importance of the position occupied by agents?

Regulatory Response to Innovation

- Financial innovation has resulted in rapid changes in product characteristics, and is likely to continue to do so in the future. How can regulation be structured to ensure that it does not fall behind rapid developments in the financial services markets? What specific initiatives are required to ensure the regulatory framework can adapt quickly and effectively as markets change?

Consumer Issues

- What social policy considerations arise as a result of the continued unbundling of products and the reduction of product and customer cross-subsidies? If such services are to continue to be offered on a subsidised basis, who should carry the cost of the subsidy? Alternatively, if the services are fully priced or discontinued, which sections of the community will be adversely affected?

- How will the developing technologies for collating and manipulating customer data affect privacy concerns? How will these concerns be best addressed?
- How will other concerns arising from new technologies such as transaction security and electronic contract legality be best addressed?

3.99 In later chapters, most of these questions are revisited as part of the discussion of specific areas of regulatory policy.