

# *Discussion*

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## **1. Claudio Borio**

The paper by Mr Thompson is a comprehensive, concise and tightly argued discussion of prudential regulation in Australia. I would like to put the paper in a broader context, highlighting the key features of the world-wide transformation of the financial industry and the basic dilemmas facing the authorities in charge of safeguarding financial stability.<sup>1</sup>

### **The Background**

Just as the years spanning the late eighteenth and early nineteenth centuries have gone down in history as those of the Industrial Revolution, so the last decades of the twentieth century and beyond may well be identified in retrospect with a Financial Revolution.<sup>2</sup> Some twenty years ago a unique configuration of economic, political and technological forces began to take shape. Their subsequent operation would transform the financial industry. Whether the verdict of history will be as positive in the case of the recent revolution as in that of its predecessor is a moot question. That verdict will depend on the ability of the authorities and market participants jointly to harness the forces of change.

The main features of structural change are by now well known: a quantum leap in the variety and complexity of new instruments; a blurring of functional distinctions between different types of institution, with combinations of business lines ranging from traditional commercial and investment banking to insurance and in some cases even non-financial activities; the internationalisation and globalisation of finance; the institutionalisation of savings; an unprecedented surge in trading and hence in payment and settlement flows (see Figure 1); and a marked heightening of competitive pressures.

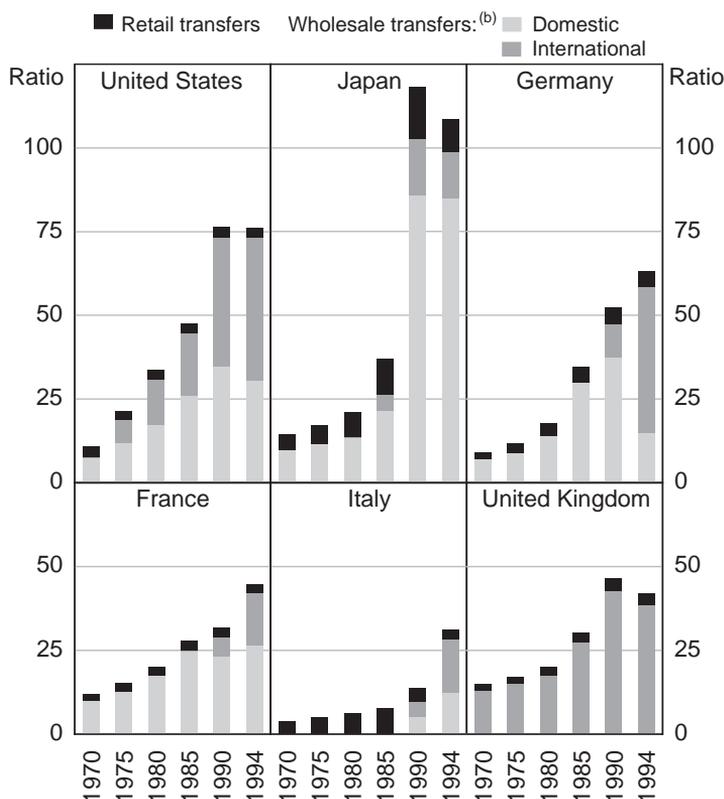
These developments have gone hand in hand with greater downward pressure on profit margins, especially in traditional intermediation activities (Table 1). Credit ratings of banks have generally tended to weaken. A rising proportion of banks' revenue has come from non-interest sources; for the larger and more international institutions, trading has played an increasing role. As the environment facing banks has become more difficult, providers of financial capital in general, and of equity capital in particular, have grown more demanding regarding the returns expected on their funds. Accordingly, financial capital has become irreversibly more expensive at the margin.

All this has transformed the nature of banking. Passive intermediation has gradually given way to more active management of risk. The value-added that banks can provide to the community has increasingly come to depend on their ability to redefine, measure and manage the risks they face, whether in connection with strategic business decisions or in their day-to-day activities.

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1. A broad overview of these themes, including their policy implications, can be found in BIS (1992a), Chapter VIII, Lamfalussy (1992) and, more recently, Borio and Filosa (1994) and Crockett (1995).
  2. See also Merton (1992).

**Figure 1: Indicators of Trends in the Value of Payments<sup>(a)</sup>**

Ratio of the annual value of funds transfers to GNP



Notes: (a) Payments through the main interbank funds transfer systems.

(b) The breakdown into domestic and international is based solely on the specialisations of the systems; for the United Kingdom, such a breakdown is not feasible.

Looking ahead, there is little reason to believe that the forces of change will abate. Deregulation has not yet fully run its course. Even in industrial countries such as the United States and Japan, restrictions on business lines are being further eroded. In the European Union, it is probably only a matter of time before the pension fund and mortgage lending sectors are exposed more fully to the rigours of competition. And the creation of a common currency could represent the single most important event in the years to come, with the potential of greatly increasing competitive pressures in the retail segments of the industry. Moreover, the pace of innovation, especially in the area of information technology, is unlikely to slow down. In particular, the longer-term impact of various forms of 'electronic banking' could be far-reaching, especially in the retail sector. The direct on-line provision of financial services, including payments services, could profoundly alter the shape of the industry: it makes banks vulnerable to a new set of potential competitors, such as software houses and network providers, and is bound to put increasing pressure on traditional bricks-and-mortar branch networks. The first 'virtual banks', delivering services exclusively on-line, were launched in the United States

**Table 1: Long-Term Accounting Indicators of Banks' Performance<sup>(a)</sup>**

| Countries             | Pre-tax profits           |           |           | Non-interest income             |           |           |
|-----------------------|---------------------------|-----------|-----------|---------------------------------|-----------|-----------|
|                       | 1980-1982 <sup>(b)</sup>  | 1986-1988 | 1990-1994 | 1980-1982 <sup>(b)</sup>        | 1986-1988 | 1990-1994 |
|                       | As a percentage of assets |           |           | As a percentage of gross income |           |           |
| United States         | 1.0                       | 0.7       | 1.6       | 24                              | 30        | 35        |
| Japan <sup>(c)</sup>  | 0.5                       | 0.6       | 0.2       | 14                              | 24        | 1         |
| Germany               | 0.5                       | 0.7       | 0.5       | 29                              | 30        | 29        |
| France                | 0.4                       | 0.4       | -0.1      | 16                              | 17        | 46        |
| Italy                 | 0.7                       | 1.0       | 0.8       | 26                              | 29        | 26        |
| United Kingdom        | 1.1                       | 1.0       | 0.7       | 29                              | 37        | 43        |
| Canada <sup>(c)</sup> | 0.5                       | 1.0       | 1.1       | 22                              | 27        | 36        |
| Australia             | 0.9                       | 1.2       | 0.7       | n.a.                            | 40        | 42        |
| Belgium               | 0.4                       | 0.4       | 0.3       | 15                              | 22        | 26        |
| Finland               | 0.5                       | 0.5       | -1.6      | 49                              | 58        | 53        |
| Netherlands           | 0.3                       | 0.7       | 0.6       | 25                              | 26        | 30        |
| Norway                | 0.6                       | 0.0       | 0.2       | 27                              | 30        | 29        |
| Spain                 | 0.7                       | 1.1       | 0.6       | 18                              | 20        | 27        |
| Sweden                | 0.3                       | 0.8       | 0.5       | 30                              | 31        | 44        |
| Switzerland           | 0.6                       | 0.7       | 0.6       | 47                              | 49        | 51        |

Notes: (a) For Australia, Belgium, the Netherlands and Switzerland, all banks; for other countries, commercial banks only.

(b) For France, Australia and Belgium, 1981/82; for Canada, 1982.

(c) Fiscal years.

Source: OECD.

in the past year. Considerable progress is also being made in ensuring the security of electronic payments, including electronic substitutes for cash. Given the strength of these supply-side forces, the environment is set to become more competitive. This is true even though in the longer term the demand for financial services can be expected to continue to expand rapidly, as ultimate investors and fund users grow richer and more sophisticated.

These background trends have important implications for the structure and performance of the financial industry. First, the restructuring under way is likely to intensify. The forces of arbitrage across instruments, markets, institutions, space, time, as well as legal and regulatory jurisdictions will continue to be the main driving factor shaping the industry. Second, the restructuring will not be painless.<sup>3</sup> Some sectors will have to shrink and adjust. In particular, the number of deposit-taking institutions should continue to fall (Table 2), bricks-and-mortar branch networks to be cut (Table 3) and employment to be

3. For an analysis of the restructuring of the banking industry, including the role of the current merger and acquisition wave, see BIS (1996a), Chapter V.

**Table 2: Banks' Restructuring, Number of Institutions and Size Concentration<sup>(a)</sup>**

| Countries                    | Number of institutions |        |                     |                   |                         |                                  | Concentration: top five (top ten) |                     |         |
|------------------------------|------------------------|--------|---------------------|-------------------|-------------------------|----------------------------------|-----------------------------------|---------------------|---------|
|                              | 1980 <sup>(b)</sup>    | 1990   | 1995 <sup>(c)</sup> | Peak (since 1980) |                         | 1980 <sup>(d)</sup>              | 1990                              | 1995 <sup>(e)</sup> |         |
|                              | Number                 |        |                     | Year              | % <sup>(f)</sup> Change | Percentage share in total assets |                                   |                     |         |
| United States <sup>(g)</sup> | 35,875                 | 27,864 | 23,854              | 35,875            | 1980                    | -34                              | 9 (14)                            | 9 (15)              | 13 (21) |
| Japan                        | 618                    | 605    | 571                 | 618               | 1980                    | -8                               | 25 (40)                           | 30 (45)             | 27 (43) |
| Germany <sup>(h)</sup>       | 5,355                  | 4,180  | 3,487               | 5,355             | 1980                    | -35                              | n.a.                              | n.a.                | 17 (28) |
| France                       | 1,033                  | 786    | 593                 | 1,033             | 1984                    | -43                              | 57 (69)                           | 52 (66)             | 47 (63) |
| Italy                        | 1,071                  | 1,067  | 941                 | 1,109             | 1987                    | -15                              | 26 (42)                           | 24 (39)             | 29 (45) |
| United Kingdom               | 796                    | 665    | 560                 | 796               | 1983                    | -30                              | 63 (80)                           | 58 (79)             | 57 (78) |
| Canada                       | 1,671                  | 1,307  | 1,030               | 1,671             | 1984                    | -38                              | n.a.                              | 55 (65)             | 78 (88) |
| Australia                    | 812                    | 481    | 370                 | 812               | 1980                    | -54                              | 62 (80)                           | 65 (79)             | 67 (79) |
| Belgium                      | 148                    | 129    | 150                 | 163               | 1992                    | -8                               | 64 (76)                           | 58 (74)             | 59 (73) |
| Finland                      | 631                    | 498    | 352                 | 631               | 1985                    | -44                              | 63 (68)                           | 65 (69)             | 74 (83) |
| Netherlands                  | 200                    | 180    | 174                 | 200               | 1980                    | -13                              | 73 (81)                           | 77 (86)             | 81 (89) |
| Norway                       | 346                    | 165    | 148                 | 346               | 1980                    | -57                              | 63 (74)                           | 68 (79)             | 58 (71) |
| Spain <sup>(i)</sup>         | 357                    | 327    | 318                 | 378               | 1982                    | -16                              | 38 (58)                           | 38 (58)             | 49 (62) |
| Sweden                       | 598                    | 498    | 112                 | 598               | 1980                    | -81                              | 64 (71)                           | 70 (82)             | 86 (93) |
| Switzerland                  | 478                    | 499    | 415                 | 499               | 1990                    | -17                              | 45 (56)                           | 45 (57)             | 50 (62) |

Notes: (a) Deposit-taking institutions, generally including commercial, savings and various types of mutual and co-operative banks; for Japan, excluding various types of credit co-operative; for Canada, excluding trust and loan companies (in 1994, 83 institutions).

(b) For France and Canada, 1984; for the United Kingdom, 1983; for Finland, 1985; for Spain, 1981.

(c) For Japan, Finland and Sweden, 1994.

(d) For France, 1986; for Italy, 1983; for Finland and the Netherlands, 1985; for Switzerland, 1987.

(e) For Japan, the United Kingdom, Belgium and Switzerland, 1994; for Finland, 1993.

(f) From peak to most recent observation where applicable.

(g) Excluding credit unions: 1995, 12,067; percentage change, -36 per cent.

(h) For number of institutions, western Germany only. Data for the whole of Germany: 1995, 3,784; percentage change, -30 per cent.

(i) Concentration data for commercial and savings banks only.

Sources: British Bankers' Association, Building Societies' Association and national data.

**Table 3: Banks' Restructuring, Number of Branches<sup>(a)</sup>**

| Countries              | 1980 <sup>(b)</sup> | 1990 | 1995 <sup>(c)</sup> | Peak |      |                                  |
|------------------------|---------------------|------|---------------------|------|------|----------------------------------|
|                        | Number ('000s)      |      |                     |      | Year | Percentage change <sup>(d)</sup> |
| United States          | 58.3                | 67.7 | 69.6                | 69.6 | 1994 | —                                |
| Japan                  | 18.5                | 24.8 | 25.7                | 25.7 | 1994 | —                                |
| Germany <sup>(e)</sup> | 39.3                | 39.8 | 37.9                | 40.0 | 1985 | -5                               |
| France                 | 24.3                | 25.7 | 25.5                | 25.9 | 1987 | -2                               |
| Italy                  | 12.2                | 17.7 | 23.9                | 23.9 | 1995 | —                                |
| United Kingdom         | 20.4                | 19.0 | 16.6                | 21.2 | 1985 | -22                              |
| Canada                 | 8.8                 | 8.7  | 9.4                 | 9.4  | 1994 | —                                |
| Australia              | 6.3                 | 6.9  | 6.7                 | 7.1  | 1993 | -6                               |
| Belgium                | 7.8                 | 8.3  | 7.8                 | 8.5  | 1989 | -8                               |
| Finland                | 3.4                 | 3.3  | 2.1                 | 3.5  | 1988 | -39                              |
| Netherlands            | 5.5                 | 8.0  | 7.3                 | 8.0  | 1989 | -9                               |
| Norway                 | 1.9                 | 1.8  | 1.4                 | 2.2  | 1987 | -37                              |
| Spain                  | 25.8                | 35.2 | 36.0                | 36.0 | 1995 | —                                |
| Sweden                 | 3.7                 | 3.3  | 2.7                 | 3.7  | 1980 | -27                              |
| Switzerland            | 3.7                 | 4.2  | 3.8                 | 4.2  | 1990 | -10                              |

Notes: (a) Deposit-taking institutions; for the United States, Japan and Australia, excluding various types of credit co-operative; for Canada, excluding trust and loan companies (in 1994, 908).

(b) For France and the Netherlands, 1981; for Australia, 1987.

(c) For the United States, Japan, the United Kingdom, Canada, Belgium, Finland, the Netherlands, Sweden and Switzerland, 1994.

(d) From peak to most recent observation where applicable.

(e) Western Germany only, excluding commission agencies of Bausparkassen. Data for the whole of Germany: 1995, 48.2; percentage change, -2 per cent.

Sources: British Bankers' Association, Building Societies' Association and national data.

reduced and requalified (Table 4). Finally, the process will add to the risk of instability. The episodes of financial instability that have accompanied the transformation of the industry so far have shown that the benefits of a liberalised environment are not a free good.<sup>4</sup> Strains may therefore reappear, especially as in several countries competitive pressures interact with stubborn cost structures.

4. At the root of the instability experienced in several countries in recent years was an asset price/credit expansion cycle exacerbated by deregulation (for example, BIS 1993a and Borio, Kennedy and Prowse 1994). Whether this was a one-off phenomenon is still a hotly debated issue (see the analysis therein).

**Table 4: Banks' Restructuring, Employment and Staff Costs**

| Countries                    | Employment <sup>(a)</sup> |       |                     |       |      |                            | Staff costs <sup>(b)</sup>         |           |                   |
|------------------------------|---------------------------|-------|---------------------|-------|------|----------------------------|------------------------------------|-----------|-------------------|
|                              | 1980 <sup>(c)</sup>       | 1990  | 1994 <sup>(d)</sup> | Peak  |      | 1980-1982 <sup>(e)</sup>   | 1986-1988                          | 1992-1994 |                   |
|                              | Number ('000s)            |       |                     |       | Year | % <sup>(f)</sup><br>Change | As a percentage<br>of gross income |           |                   |
| United States <sup>(g)</sup> | 1,900                     | 1,979 | 1,891               | 2,136 | 1987 | -12.0                      | 36                                 | 31        | 27                |
| Japan                        | 612                       | 597   | 618                 | 622   | 1993 | -0.6                       | 44                                 | 33        | 39                |
| Germany <sup>(h)</sup>       | 533                       | 621   | 658                 | 658   | 1994 | —                          | 48                                 | 44        | 39                |
| France                       | 399                       | 399   | 382                 | 401   | 1988 | -5.0                       | 47                                 | 44        | 44                |
| Italy                        | 277                       | 324   | 332                 | 333   | 1993 | -0.3                       | 46                                 | 48        | 44                |
| United Kingdom               | 324                       | 425   | 368                 | 430   | 1989 | -15.0                      | 47                                 | 38        | 36                |
| Canada                       | 170                       | 211   | 202                 | 211   | 1990 | -4.0                       | 42                                 | 33        | 33                |
| Australia                    | 265                       | 356   | 311                 | 356   | 1990 | -13.0                      | n.a.                               | n.a.      | n.a.              |
| Belgium                      | 68                        | 79    | 76                  | 79    | 1990 | -5.0                       | 41                                 | 33        | 39 <sup>(i)</sup> |
| Finland                      | 42                        | 50    | 36                  | 53    | 1989 | -32.0                      | 43                                 | 33        | 24                |
| Netherlands                  | 113                       | 118   | 112                 | 119   | 1991 | -6.0                       | 42                                 | 41        | 38                |
| Norway                       | 24                        | 31    | 23                  | 35    | 1987 | -34.0                      | 42                                 | 35        | 30                |
| Spain                        | 252                       | 252   | 245                 | 256   | 1991 | -4.0                       | 47                                 | 43        | 37                |
| Sweden                       | 39                        | 45    | 42                  | 46    | 1991 | -5.0                       | 29                                 | 23        | 22                |
| Switzerland                  | 84                        | 120   | 112                 | 120   | 1990 | -7.0                       | 40                                 | 37        | 33                |

Notes: (a) In deposit-taking institutions; for Japan, excluding credit co-operatives; for Canada, excluding trust and loan companies (employment in 1995, 25,000); for Australia, finance and insurance industry.

(b) For Belgium, the Netherlands and Switzerland, all banks; for all other countries, commercial banks (OECD definition).

(c) For France, 1985; for Australia, the Netherlands and Sweden, 1984; for Spain, 1981.

(d) For Italy, Australia, Norway and Spain, 1995.

(e) For France and Belgium, 1981/82; for Canada, 1982.

(f) From peak to most recent observation where applicable.

(g) Employment data excluding credit unions: 1994, 1,732; percentage change, -14 per cent.

(h) For employment, western Germany only. (Data for the whole of Germany: 1994, 728.)

(i) 1992.

Sources: For staff costs, OECD; for employment, British Bankers' Association, Building Societies' Association and national data.

## The Policy Challenge

If the background just described adds to the urgency of setting up an effective prudential framework, the changing structure of financial services complicates matters substantially. Admittedly, over time the policy framework has evolved towards a much more market-oriented approach, mirroring the transformation of the industry. Nevertheless, reconciling the prevailing *laissez-faire* philosophy with safeguards against instability is proving unexpectedly difficult. This is true even if the mandate to safeguard stability is interpreted narrowly to refer to *systemic* stability only. Such difficulties are apparent in three key areas: coverage, the pursuit of a level playing field and capital standards.

In the present liberalised financial industry the *coverage* of supervision and regulation on systemic grounds should arguably be broader than in the previous compartmentalised world. On efficiency grounds, banks have been allowed to extend their range of activities. In order to secure systemic stability, the authorities have perceived a need to extend the coverage of official supervision to those activities as well.<sup>5</sup> Experience has shown that no legal or functional safeguards can effectively insulate separate units of a financial enterprise at times of stress; hence the present attempts to broaden the application of the principle of consolidated supervision.<sup>6</sup> If efforts are not successful, supervisory gaps could endanger stability. If they are, official supervision may reach too far, that is, to activities that, when not performed by banks, need not represent a systemic threat.

The pursuit of a *level playing field* exacerbates this dilemma.<sup>7</sup> The ideal of fair competition is a cornerstone of any properly functioning market. Moreover, eliminating competitive distortions is seen as instrumental in bringing about stability: experience has shown that uneven competition and regulatory arbitrage are quite capable of creating strains. Considerable efforts have been made in this area in recent years across both geographical and institutional lines. Clearly much more can be done. Yet given the possibility for banks to combine activities freely, the pursuit of a level playing field calls for a further extension of regulatory coverage across the institutional spectrum, that is, to those non-bank firms that perform some of banks' activities. If the principle is applied strictly, coverage could even embrace non-financial companies. The risk of an excessive reach of regulation, and of the associated 'safety net', is obvious.

Similar tensions are involved in formulating the methodology of supervision. *Capital standards* have played a central role. Raising and refining the minimum standards has strengthened the banks' cushion against losses. Moreover, it has also helped to shift the balance in exerting discipline on institutions back towards market participants, primarily by making shareholders more vulnerable to an institution's risk profile. No doubt the standards have contributed to the renewed focus on profitability, as opposed to mere size

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5. As discussed in Thompson's paper, liquidity transformation (holding 'illiquid' assets against 'liquid' liabilities) and involvement in payments and settlement systems are two functions that can potentially generate systemic problems. They lie at the heart of banks' activities. It is of course institutions, and not functions that go bust and their failure is an important source of, and mechanism for the transmission of, financial disruptions.
  6. On this issue, see Borio and Filosa (1994), Tripartite Group (1995) and, for further steps forward, Padoa-Schioppa (1996).
  7. For a critique of the pursuit of a level playing field, see for example, Benink and Llewellyn (1995).

or growth, as a guide to business policy. Nevertheless, any such standards are a form of interference in management. Striking a balance between the regulators' and management's judgment is proving difficult; witness the controversy over the restrictions on the use of banks' own internal models to calculate the standards for market risk. Achieving such a balance is especially important in the current regulatory environment: with the dismantling of other restrictions on banks' operational freedom, capital standards are likely to be a major force influencing the competitive advantage of institutions in the years ahead.

In comparison with these dilemmas, other issues seem to be of secondary importance or more straightforward, *at least conceptually*. Should, for instance, the central bank be in charge of supervision? As Mr Thompson cogently argues, even in cases where the central bank was not *de jure* in charge, *de facto* it would still need to have access to sufficient information about individual financial system participants because of its inevitable role in crisis management. Similarly, should supervisory agencies, at present structured along institutional lines, be combined into a single agency? The issue is subordinated to the need to ensure a sufficient flow of information and to the harder question of the necessary degree of harmonisation regarding the methodology of supervision. Once that is determined, the exact scope for organisational economies would follow naturally.

## Policy Responses

The basic dilemmas involved in reconciling the prevailing *laissez-faire* philosophy with safeguards against instability are alluded to at several points in Mr Thompson's paper. I am not convinced, however, that they are stressed sufficiently. This may partly be due to the broad rationalisation provided for prudential standards, identified with maintaining the solvency of individual institutions on what read very much as investor protection concerns.<sup>8</sup> This view has historically taken it for granted that coverage should naturally extend beyond deposit-taking institutions. It may also reflect the judgment that, at least at present, regulatory concerns have second-order competitive implications across types of institution or that their potential impact on stability is essentially benign.

I think that these dilemmas are likely to become even more apparent in the years ahead. This is because the interaction between arbitrage and prudential restrictions will, if anything, intensify. Technology will broaden the spectrum of possibilities for redefining, relocating and delivering financial services. Competitive pressures will heighten the incentives to do so.<sup>9</sup> For instance, while still in their infancy, the potential of credit derivatives is enormous. And the entry of non-financial firms in payments and settlement services will doubtless raise thorny issues.

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8. 'Supervision is justified on the grounds that it is inefficient for households to have to make judgements in the conduct of their daily affairs about the health of various complex financial institutions' (Section 4). The tension between investor protection and systemic stability as policy goals is discussed in more detail in, for instance, Borio and Filosa (1994) and Goodhart (1995).

9. On the issue of credit risk management more broadly and its implications for supervision, see Crockett (1995) and Yellen (1996).

There are two broad lines of action that can help to alleviate these dilemmas. The first is to strengthen the *market orientation* in the methodology of supervision, a point mentioned at the end of Mr Thompson's paper.<sup>10</sup> In essence, this involves mimicking and/or upgrading the market disciplinary mechanisms on individual institutions. The second is to sharpen the *systemic orientation* of policy. This essentially means limiting the knock-on effects of failures of institutions or markets so as to lighten the burden on, and increase the flexibility of, the prudential oversight of individual firms.

Some of the policies aimed at strengthening the market orientation of the framework are well known: greater emphasis on the adequacy of internal risk-management systems than on rigid rules or controls, greater reliance on public disclosure, and a narrowing of the scope of those forms of intervention that provide protection without commensurate oversight, thereby numbing incentives to constrain imprudent behaviour. Other policies have sometimes received less attention and go beyond the narrow confines of prudential standards. They relate essentially to issues of corporate governance and to broader constraints on the operation of market forces, some of which may hinder the restructuring under way in the industry. These policies include favouring ownership structures more sensitive to the operation of market forces (for example, privatisation) and weakening obstacles to the adjustment of capital and labour, notably by easing constraints on, and improving the effectiveness of, the takeover mechanism and by reducing inflexibilities in the labour market.

A sharper systemic orientation calls for a close attention to the functioning and organisation of markets. Paramount in this context is improving the safety and soundness of payments and settlement systems, a key channel for the transmission of financial disruptions. The task here is to adapt the systems so that they can smoothly handle the unprecedented growth in traffic flows and the concomitant increase in the scale of liquidity and credit risks.

There is no doubt that initiatives to strengthen the market and systemic orientation of policy have been stepped up in recent years. A few examples may suffice. The recent acceptance, subject to a number of qualitative and quantitative criteria, by the Basle Committee on Banking Supervision of the use of banks' internal models for the calculation of market risk, represents a fundamental philosophical shift in the right direction. Significant efforts have been made in the area of disclosure, as illustrated by the 1994 report on public disclosure of market and credit risk by the Group of Ten central banks (BIS 1994b) and by the guidelines published by the Basle Committee on Banking Supervision and the International Organisation of Securities Commissions (IOSCO) in November 1995. Deposit insurance schemes have come under closer scrutiny, as highlighted by the introduction of risk-related premiums in the United States in 1993. And in the same country the implementation of 'prompt corrective action' has provided a noteworthy answer to the perceived bias of belated intervention by supervisors while at the same time overcoming the abrupt and disruptive character of the operation of market discipline on financially distressed institutions. More generally, central banks have sought to ensure that credit and liquidity risks in payments and settlement systems

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10. This point is stressed in, for example, Basle Committee on Banking Supervision (1992), Padoa-Schioppa (1995) and Crockett (1995).

are better understood and managed, not least by having banks carrying a greater share of the burden. The move towards delivery-versus-payment and Real Time Gross Settlement are essential elements of this strategy.<sup>11</sup>

This list of initiatives is by no means intended to suggest that progress has been commensurate with the size of the challenge. It would indeed be very easy to provide an even more demanding agenda of what is yet to be done. Nor is it intended to indicate that appropriate answers to the many issues involved have been found. Rather, it illustrates that certain broad directions of policy have been identified. A sharper focus on these holds forth the promise of a stronger financial system, one where regulatory arbitrage would have less reason to display its muscle, where individual agents and markets would bear a greater share of responsibility in line with the greater freedom they enjoy and where the failure of individual institutions would not necessarily be identified with the failure of regulation and supervision as long as the system was resilient enough to absorb the damage.

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11. For specific initiatives, see BIS (1990), BIS (1992b), BIS (1993b) and BIS (1996b). An overall discussion of the issues can be found in BIS (1994a), Chapter VIII and, in more detail, Borio and Van den Bergh (1993). Unfortunately, academics in general have not as yet devoted proper attention to these problems, partly because the nature of payments system risk has been misunderstood (Borio 1995).

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## 2. General Discussion

The discussion covered a wide range of issues including:

- costs and benefits of regulation;
- the regulation of superannuation funds;
- synergies between bank supervision and monetary policy; and
- the case for a ‘mega-regulator’.

It was widely accepted that some regulation was needed. One rationale was to preserve the integrity of the payments system, which required some regulatory and prudential oversight of banks. In this context it was remarked that the move to ‘real time gross settlement’ (RTGS) in the payments system would not entirely eliminate payment risks but would change the nature of that risk. In addition to the payment-risk issue, there was an important focus on the wider issue of systemic risk, related to the potentially disruptive effects of failure of financial institutions. Finally, investor protection was a concern across a wide range of financial products.

Financial regulation also had costs. Participants emphasised that the main potential sources of costs were not the operational costs of the regulators themselves but the compliance costs and potential distortions arising if regulations were inappropriately designed.

It was suggested that the investor protection concern could be increasingly relevant for superannuation funds. The superannuation sector in Australia rests largely on non-discretionary contributions, either award-based or by employer requirement. Consent of the beneficiaries as to the choice of fund, the nature of benefits or the investment strategy is often not obtained. In these circumstances the investors might legitimately expect some official protection. One comment was that it was inconceivable people could reach retirement age and find that their contributions had been stolen or wasted through mismanagement.

A suggested solution would be to give investors the choice of fund, but this raised other issues. At present superannuation funds were often locked in for long periods, but that would change if widespread switching was allowed. If confidence in a fund was lost, the fund might have to dispose of assets at discounted prices, at a high cost to remaining policyholders. Moreover, it was just as hard for an ordinary household to assess the health of a superannuation fund as to assess a bank. This scenario suggested that systemic risks traditionally ascribed to banking could also be relevant in the superannuation sector.

Other participants emphasised the essential differences between products of different institutions. Banks and insurance offices essentially deal in fixed-value commitments whereas funds managers deal in investments with no promised fixed value. Banks and insurers in turn have fundamental differences: banks hold illiquid assets against liquid liabilities, whereas insurers hold liquid assets against uncertain long-term claims. These differences necessitated different approaches to regulation and required different types of expertise in the regulatory authorities.

There was considerable discussion as to how the main regulatory institutions should be structured. Some scepticism was expressed as to the need for prudential supervision

and monetary policy to be kept in the one institution: it was argued that the synergies were hard to demonstrate. Others argued, however, that the lender of last resort facility created a crucial link between the two functions, and that central banks typically retained a role in bank supervision even when they were not the main supervisory authority.

There was an active discussion of the 'mega-regulator' idea (the proposal to amalgamate regulatory authorities into a larger body). Arguments in support included a general desire for close co-ordination of the different regulatory functions, and a view that the development of financial conglomerates necessitated the development of a regulatory authority covering all the areas of a conglomerate's activities. A number of difficulties of the mega-regulator approach were also raised. One was that there may be high costs in merging diverse regulatory bodies and that any gains from synergies and streamlining were likely to be small. Another argument was that merging regulatory bodies might not be in the public interest as some debates were best held in public (between organisations) rather than behind closed doors in a single organisation. Others emphasised the important basic differences that still existed between the main groups of financial institutions, requiring specialist areas of regulatory expertise to be maintained. Finally, it was argued that prudential supervision needed to be kept separate because it carried an implication of access to official support, and that this should not be spread too widely. Embedding prudential supervision in a wider regulatory body might encourage perceptions of official support for the financial sector in general.

Some participants remarked that these arguments were hard to evaluate. A final comment was that the content of regulation was much more important than the structure of the regulatory authorities. Other countries had fallen into the trap of focusing excessively on shifting the institutional responsibilities for regulation. This had little impact when there was no change in the basic principles. The first priority had to be to state the objectives of regulatory policy before considering whether institutional changes were needed to achieve them.