FINANCIAL LIBERALIZATION IN
AUSTRALIA AND NEW ZEALAND

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Summary

Introduction

In much the same way as many developing countries, Australia and New Zealand are realizing the importance of adjusting their economies away from the traditional dependence on commodity exports by improving the efficiency of other sectors so as to create opportunities for more broadly based growth. In Australia, financial liberalization spearheaded by the Committee of Inquiry into the Australian Financial System (the Campbell Committee) and continued by the Martin Review Group, was virtually in place by the time the government committed itself to substantial restructuring of the other sectors of the economy. In New Zealand, financial liberalization was conceived as part of a comprehensive economic policy reform package. In both countries, financial liberalization proceeded at a very rapid pace and without any apparent serious opposition from interested groups.

Why financial liberalization in Australia and New Zealand?

High and variable rates of inflation, large government deficits, and advances in information technology leading to financial innovations in the 1970s, had combined to reduce the effectiveness of banking regulations in Australia and New Zealand.

From the banks point of view, these developments had raised the effective costs without raising the rent implied by the regulations. They were therefore in favour of deregulation.

From the governments point of view, developments in the 1970s had meant that redistribution goals, monetary controls and prudential considerations were no longer served by the regulations.

These same economic forces in the 1970s had reduced the benefits of regulations to other interest groups such as bank employees, farmers and home purchasers so that they were prepared to trade off the dwindling benefits of regulation for the potential gains of a liberalized financial sector.

Skilful management was certainly required, but the rapidity and far reaching nature of financial liberalization was underpinned by economic developments in Australia and New Zealand.
Exchange rate overshooting and sequencing of liberalization

The rapid deregulation of the financial and foreign exchange markets, together with contractionary monetary policy, has resulted in real exchange rate overshooting and consequent squeeze on the export sector. This transitional problem could perhaps be ameliorated by an effective incomes policy, although the latter is no substitute for deregulation of the labour market.

Challenges of a deregulated financial environment

Real exchange rate overshooting requires governments to adopt a better balance of macroeconomic policies so as not to put undue pressure on monetary policy.

Increased exchange rate volatility after liberalization implies reduced volatility in domestic monetary conditions. The challenge of exchange rate volatility for the financial sector has been to develop instruments that will help participants in the foreign exchange market to handle the increased risks involved.

Rapid financial growth, diversification and re-intermediation since liberalization emphasize the difficulties of prudential controls, of interpreting monetary aggregates, and of understanding how monetary policy works in the new environment.

Conclusions

Liberalization is not an unilateral act on the part of governments. For it to be successful, it has to be underpinned by developments in the private sector. At the same time, liberalization becomes a catalyst for further changes in the market, bringing with them a different set of challenges.
Introduction

In much the same way as many developing countries, Australia and New Zealand have traditionally been commodity exporters subject to big swings in their current account balances. Again, like many Asian countries, Australia and New Zealand are realizing the importance of adjusting their economies away from such dependence by improving the efficiency of other sectors so as to create opportunities for expanding exports and more broadly based growth. Although there is a long way to go, restructuring is occurring in hitherto sheltered areas in manufacturing, and in the services sector including, for example, education, and even in the labour market. In Australia, these reforms were preceded by liberalization of the financial market which was virtually in place by the time the Hawke-Keating Labor Government committed itself to substantial restructuring of other sectors of the economy. Financial liberalization in New Zealand, on the other hand, was conceived as part of a comprehensive economic policy reform package. In both countries, however, financial liberalization proceeded at a very rapid pace and without any apparent serious opposition from interested parties. The first part of this paper attempts to explain why this was the case.

Australian financial deregulation began gathering momentum in 1979 with the appointment by the Liberal-National Party Coalition Government of the Committee of Inquiry into the Australian Financial System (the Campbell Committee). This provided a focus for interest groups (including the Treasury, the Reserve Bank, the Bankers’ Association, the Bank Employees’ Union, and academics writing commissioned studies) to consider seriously the issue of financial deregulation and to air their views. The Committee’s recommendations were in favour of substantial deregulation. Perhaps as a result of the process of written and oral submissions (a great deal of which was covered in the press) and the publication of the Committee’s Interim Report (Australia 1980), the government of the day proceeded to remove interest rate ceilings on bank deposits in December 1980 even before the Final Report (the Campbell Report) was published in 1981. By 1982, quantitative bank lending guidance ceased, portfolio controls on savings banks were relaxed, and a market oriented, interest-rate-sensitive system (the tender system) for selling government securities was introduced. The Labor Government which took office in March 1983 set up the Martin Review Group to review the recommendations of the Campbell Committee. The Martin Review took the economic arguments for deregulation provided by the Campbell Report and developed the blueprint for continued deregulation under a traditionally interventionist Labor government. The remaining major deregulatory steps were subsequently accomplished. These include the
abolition of exchange controls and the floating of the Australian dollar in December 1983, as well as the entry of forty new foreign exchange dealers in 1984, and of sixteen foreign banks by February 1985. The most recent major step was the abolition in August 1988 of the Statutory Reserve Deposit requirement of trading banks. As the Governor of the Australian Reserve Bank said to the New Zealand Bankers' Association: 'For Australia, a plan for reform across the whole economic spectrum had not yet reached the agenda in 1983 when financial deregulation was virtually completed' (Reserve Bank of Australia November 1987:6).

New Zealand financial deregulation, on the other hand, was conceived as part of an overall reform program to improve living standards. Although it has been claimed (Blyth 1987) that parts of the reform program (notably on the trade side) had begun before the coming into office of the New Zealand Labor Government in July 1984, the pace of financial deregulation since that date has been rapid. Interest rate controls on financial institutions were removed during July/August 1984, exchange controls were removed in December 1984, and the New Zealand dollar was floated by March 1985. All compulsory ratios imposed on financial institutions (including the reserve asset ratio) were abolished in February 1985, and a policy admitting new banks was announced in November 1985. As of March 1988, ten new banks had been registered. Appendices 1 and 2 give a detailed chronology of the major deregulation steps in the Australian and New Zealand financial sectors.

Financial liberalization in both countries has been rapid and far-reaching. It has been argued (Kane 1981) that accelerating inflation and technological innovations in the 1970s combined to reduce the effectiveness of banking regulations in Western economies. Accelerating inflation increased the effective cost of interest rate ceilings to banks. At the same time, technological advances epitomized in the information revolution made it possible to provide close substitutes for the products and services that were under regulation. Therefore, from the banks' point of view, the costs of regulation had risen while the costs of evading the regulations had fallen. Incentives for widespread evasion emerged, and a case existed for deregulation in the private interest of the banks.

At the same time, high and variable rates of inflation made savers more conscious of interest rate differentials, and led deposits away from the regulated institutions (banks) towards the non-bank financial intermediaries. Improvements in information technology also enabled the non-bank financial intermediaries to offer close substitutes for the products and services offered by banks. These factors underpinned the accelerating growth of non-bank financial intermediaries in the 1970s and intensified the process of financial dis-intermediation. This process reduced the effectiveness of regulations as a form of monetary control, and encouraged the adoption of more market
oriented strategies on the part of the central banks. This was an argument for
deregulation in the public interest.

The coincidence of public and private interests in financial liberalization
constituted a major factor in its success (Harper 1986). Skilful management
was necessary, but it was underpinned by economic forces in the seventies.
This paper examines these issues with reference to Australia and New
Zealand.

If indeed it were accepted that the financial sector was more amenable to
rapid deregulation in the 1980s than other sectors in the economy, then the
literature on sequencing of liberalization loses much of its practical
significance. Rapid financial liberalization together with contractionary
monetary policy would result in increases in domestic interest rates and hence
appreciation of the nominal exchange rate. Rigidities in the labour and goods
market would translate this into an appreciation of the real exchange rate.
There is the argument (Buckle 1987, Spencer and Carey 1988) that the
resulting difficulties experienced by the export sector would put pressure on
other sectors to liberalize. On the other hand, this ‘hard landing’ scenario
could jeopardize the rest of the reform program. The second section of this
paper contrasts New Zealand’s current situation with Australia’s experience in
resolving this dilemma through government action in the foreign exchange
and labour markets.

In the third section there is a discussion of the experience of the two
countries in a financially deregulated environment. The process of financial
growth and financial re-intermediation seems to be common to both countries,
as are the challenges confronting the monetary authorities in re-defining
monetary aggregates and re-interpreting their relationships with policy
instruments and their impact on income and inflation. Furthermore, increased
competition in the financial sector carries with it greater risks of default and
bankruptcies. The task of setting prudential guidelines without, at the same
time, impeding competition and reducing incentives for prudence by the
financial institutions themselves, proves to be another major challenge for
governments in the late 1980s.

Why financial liberalization in Australia and New Zealand?

Neither Australia nor New Zealand has a tradition of strong commitment
to the ideology of free markets. The desire for government involvement in
most spheres of life has been traced back to the last century in New Zealand
(Sinclair 1980), and to the convict heritage in the case of Australia (Sanders
1988). The specific regulation of banks, however, stemmed from public
sentiments during the depression of the 1930s (Reserve Bank of Australia
November 1985, Blyth 1987). Legislation passed after the second world war
empowered governments to restrict entry into the banking industry, to call trading bank funds into statutory reserve deposits, to control the level and direction of trading and savings bank lending, to control interest rates, and to control foreign exchange and payments to and from foreign countries. In addition, banks were required to keep certain proportions of their depositors' funds in government securities and these controls in lesser degree were later extended to some non-bank financial intermediaries such as short term money market dealers and life insurance companies. In the case of Australian life insurance companies, tax incentives were also used to promote the holding of government securities.

From the banks' own point of view, the interest rate ceilings on loans and ratio controls (including the statutory reserve assets ratio) constituted an implicit tax, in exchange for which they received rent from a legalized cartel formed through restricted entry. Interest rate ceilings on deposits, on the other hand, were an implicit tax on the banks' depositors. When, as discussed below, developments in the 1970s substantially increased the cost of these implicit taxes, Australian bankers argued strongly for the rapid removal of direct controls, but were very much on the side of gradualism as far as the entry of new banks was concerned (Australian Bankers' Association 1979). Interestingly, there was no strong pressure from the New Zealand banks to abolish direct controls. This could reflect the fact that statutory reserve deposits in Australia only paid nominal interest rates (an increase from 0.75 per cent to just over 2 per cent between 1970 and 1976) whereas the required reserves in New Zealand had interest rates that generally followed the inflation rate, albeit with long lags.

Other interested parties believed that they benefited from regulations that channelled cheap bank funds to them, notably the housing industry, rural industries, and state government instrumentalities. Again, developments in the 1970s considerably weakened these benefits.

From a public policy or public interest point of view, governments saw financial regulations as a means of directing credit towards activities that Australian and New Zealand people deemed to be important. These included the provision of housing, the services provided by state governments, and farming. The regulations were also thought to facilitate monetary control while domestic interest rates were kept relatively low and stable. In this way, it was thought that investment and high levels of employment and income could be maintained without running the risk of inflation. Exchange controls, on the other hand, were applied to mobilize foreign exchange earnings under the control of the central banks to ensure that they were employed for what

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1New Zealand monetary statutory powers date from the creation of the Reserve Bank in 1934, although instruments of monetary policy were not extensively used until the 1950s, and the range and scope of the controls available to the Bank increased sharply in subsequent decades.
were seen as priority purposes. In addition, by isolating domestic capital markets from world capital markets, exchange controls were intended to give the central banks greater control over money supply under the fixed (and later a crawling peg) exchange rate regime. Furthermore, public interest was thought to be served by using regulations as a form of prudential control over banks and, to a lesser degree, over other custodians of the community’s savings.

Developments in the 1970s common to both countries, namely accelerating inflation, large government budget deficits, and advances in information technology and financial innovation, drastically changed the above equations (Kane 1981, Keeler 1984, Harper 1986).

Inflation

In the decade of the seventies, the average annual inflation rates for Australia and New Zealand were 10.5 per cent and 12.5 per cent respectively, compared with the Organization for Economic Cooperation and Development (OECD) average of 9.04 per cent (OECD 1987). Nominal interest rates needed to rise in times of high inflation to maintain real rates of return to lenders. Statutory reserve deposits reduced profitability to trading banks while interest rate ceilings on deposits channelled depositors’ funds away from banks towards non-bank financial intermediaries. The latter trend, which began in the 1950s, was intensified in part by the fact that inflation heightened the awareness of the household sector (the chief source of domestic savings in financial forms) to differential rates of return on their investments (Harper 1986) and reduced customer loyalty to banks (Reserve Bank of Australia February 1986). Table 1 shows the gap between controlled interest rates and market rates in Australia. The 90-day bank bill rate is a market rate while the trading bank maximum deposit rate for three to six months’ deposits is a regulated rate. While the rates quoted in this table are perhaps more applicable to the corporate than to the household sector, they are indicative of interest rates generally.
Table 1 Controlled interest rates, market interest rates, and interest rates on short term government securities in Australia, 1970-87 (per cent per annum)

<table>
<thead>
<tr>
<th>June</th>
<th>Trading banks' maximum fixed deposit rate</th>
<th>90-day bank bill rate</th>
<th>13-week Treasury notes, issue yields</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>4.80</td>
<td>8.70</td>
<td>5.41</td>
</tr>
<tr>
<td>1971</td>
<td>5.00</td>
<td>8.15</td>
<td>5.37</td>
</tr>
<tr>
<td>1972</td>
<td>4.30</td>
<td>5.75</td>
<td>4.50</td>
</tr>
<tr>
<td>1973</td>
<td>4.30</td>
<td>6.40</td>
<td>4.91</td>
</tr>
<tr>
<td>1974</td>
<td>6.75</td>
<td>18.80</td>
<td>10.75</td>
</tr>
<tr>
<td>1975</td>
<td>9.00</td>
<td>8.80</td>
<td>7.81</td>
</tr>
<tr>
<td>1976</td>
<td>8.25</td>
<td>10.45</td>
<td>6.98</td>
</tr>
<tr>
<td>1977</td>
<td>8.25</td>
<td>11.10</td>
<td>8.60</td>
</tr>
<tr>
<td>1978</td>
<td>7.75</td>
<td>10.80</td>
<td>8.35</td>
</tr>
<tr>
<td>1979</td>
<td>7.75</td>
<td>10.35</td>
<td>9.02</td>
</tr>
<tr>
<td>1980</td>
<td>8.50</td>
<td>13.85</td>
<td>10.84</td>
</tr>
<tr>
<td>1981</td>
<td>12.25</td>
<td>16.00</td>
<td>13.31</td>
</tr>
<tr>
<td>1982</td>
<td>15.25</td>
<td>18.75</td>
<td>15.47</td>
</tr>
<tr>
<td>1983</td>
<td>13.20</td>
<td>13.60</td>
<td>11.93</td>
</tr>
<tr>
<td>1984</td>
<td>12.50</td>
<td>12.80</td>
<td>11.24</td>
</tr>
<tr>
<td>1985</td>
<td>discontinued</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td></td>
<td>16.50</td>
<td>14.02</td>
</tr>
<tr>
<td>1987</td>
<td></td>
<td>14.80</td>
<td>12.38</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13.35</td>
<td>12.23</td>
</tr>
</tbody>
</table>

Source: Reserve Bank of Australia, Bulletin database.

Table 1 also shows that, in times of high inflation, interest rates on government securities were below market rates. This meant that the ratio controls required banks to hold, amongst other liquid assets, significant proportions of their assets in government securities became increasingly onerous as a form of implicit tax. Again, banks were disadvantaged compared with other financial institutions that had lower or negligible ratio controls.

Inflation also made investors less willing to hold long term securities because of the uncertainties regarding real rates of return on investments. Maturity controls over trading bank deposits made those institutions less able to cater to changing consumer tastes. It was therefore not surprising that, as Table 2 shows, the share of bank assets in Australia as a proportion of total assets in the financial sector (excluding the Reserve Bank) fell by 10 per cent between 1967 and 1983. It started rising again only after the bulk of the deregulation was in place. The temporary recovery between 1973 and 1976 was attributed to the removal of interest rate controls on trading banks' certificates of deposits in September 1973. The loss of market share on the part of the savings banks to the non-bank savings institutions is more dramatically illustrated in Figure 1 which shows the assets held by savings banks, credit unions and building societies as a proportion of total assets of these three groups.
Figure 1  Assets of saving banks, credit unions and building societies expressed as percentage of total assets of these three groups, Australia, 1964-86


Table 2 also shows the share of trading bank assets as a proportion of private sector credit in New Zealand. Although the general declining trend is similar to that of Australia, the New Zealand picture is complicated by the fact that interest rate ceilings on banks were removed in 1976, but were re-imposed in 1981. Hence, there was some regaining of market share on the part of New Zealand banks, back to 60 per cent in 1977, before falling to a low 53 per cent in 1984 after which interest rate controls were again lifted. This difference in historical experience, together with the differential interest rates paid on required reserve deposits, could explain the more aggressive attitude in favour of deregulation on the part of the Australian banks that was not present in the New Zealand banks. At the same time, however, the New Zealand banks did not oppose deregulation.

Accelerating inflation also posed difficulties for both governments. By requiring banks to hold large portions of their assets in government securities that had been rendered illiquid and low yielding by inflation, the regulations were in fact acting against prudential considerations. Nor were sufficient
funds being channelled into the desired sectors as originally intended. The declining share of bank assets as shown in Table 2 meant that, although the proportion of bank lending to favoured sectors might have been higher under regulations, the level of lending might have been the same or even lower (Spencer and Carey 1988). Furthermore, as noted in the Campbell Report (Australia 1981), in situations of credit rationing, banks would favour borrowers with lower risks (that is, larger borrowers with collateral and/or a previous record of doing business with the bank) rather than small borrowers. This is a familiar observation, common to many countries that have financial repression.

Table 2  Market share of banks in Australia and New Zealand, 1967-86 (per cent)

<table>
<thead>
<tr>
<th>Assets of trading and savings banks as per cent of total assets of financial sector (excluding Reserve Bank), Australia</th>
<th>Claims of trading banks as a per cent of private sector credit, New Zealand</th>
</tr>
</thead>
<tbody>
<tr>
<td>1967</td>
<td>49.4</td>
</tr>
<tr>
<td>1968</td>
<td>48.6</td>
</tr>
<tr>
<td>1969</td>
<td>47.2</td>
</tr>
<tr>
<td>1970</td>
<td>45.1</td>
</tr>
<tr>
<td>1971</td>
<td>43.7</td>
</tr>
<tr>
<td>1972</td>
<td>41.5</td>
</tr>
<tr>
<td>1973</td>
<td>42.4</td>
</tr>
<tr>
<td>1974</td>
<td>42.7</td>
</tr>
<tr>
<td>1975</td>
<td>44.2</td>
</tr>
<tr>
<td>1976</td>
<td>44.5</td>
</tr>
<tr>
<td>1977</td>
<td>43.2</td>
</tr>
<tr>
<td>1978</td>
<td>42.0</td>
</tr>
<tr>
<td>1979</td>
<td>51.5</td>
</tr>
<tr>
<td>1980</td>
<td>41.2</td>
</tr>
<tr>
<td>1981</td>
<td>40.6</td>
</tr>
<tr>
<td>1982</td>
<td>39.8</td>
</tr>
<tr>
<td>1983</td>
<td>39.3</td>
</tr>
<tr>
<td>1984</td>
<td>40.4</td>
</tr>
<tr>
<td>1985</td>
<td>41.0</td>
</tr>
<tr>
<td>1986</td>
<td>42.3</td>
</tr>
</tbody>
</table>


One of the factors that led the Australian-Liberal National Party Government to review the financial system was a concern at the shortage of funds for small business. This was consistent with the effect of credit rationing in existence at the time (Harper 1986). Small borrowers, for example in housing finance, had to turn to higher cost funds, such as
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solicitors’ funds (Australia 1981, Spencer and Carey 1988). The move away from large financial intermediaries towards direct financing (that is, the process of financial dis-intermediation) was very much a trend observed in the 1970s, and entailed high ‘efficiency costs’, particularly in the case of small lenders and borrowers. The size of this cost could perhaps be gauged by the fact that re-intermediation from direct financing back to banks is a significant trend in Australia post-deregulation, and that interest rate margins of banks have significantly narrowed in Australia since the early 1980s, reflecting increased competition (Beetham 1987).

Finally, high inflation meant that the central banks in both countries needed an effective monetary policy. Direct controls on banks no longer provided the capacity to apply sustained and independent pressure on domestic monetary conditions because of the process of financial dis-intermediation described above. The regulations themselves had encouraged the growth of fringe institutions outside the regulatory net (Reserve Bank of New Zealand April 1985). Greater reliance therefore had to be placed on market oriented strategies, such as open market sales of government securities by the central banks. Open market sales reduce the price and increase the yields on government securities, and hence result in more general increases in domestic interest rates than direct controls on the banking system alone.

Significant increases in domestic interest rates would, however, engender inflows of foreign capital. Under the pegged exchange rate regimes existing in Australia and New Zealand before financial liberalization, capital inflows increased the central banks’ international reserves and money base, and thereby offset part of the tight money policy. Exchange controls (which included controls over inflows for part of the 1970s in Australia) were intended to prevent this from happening, but financial innovations discussed below were eroding the effectiveness of these in Australia by the latter part of the 1970s. Estimates of the ‘offset coefficient’ for Australia before 1976 averaged about minus 0.5 (Porter 1974, Murray 1978). However, studies for the period after 1976 (Polasek and Lewis 1985) indicated a much closer degree of integration with world financial markets.

In the circumstances, therefore, to regain effective control over domestic monetary conditions, the central banks would have needed to re-establish effective control over foreign exchange flows or to float their currencies. To have an effective float, however, exchange controls would have to be abolished.

At the time of their submissions to the Campbell Committee, both the Australian Treasury (1981) and the Reserve Bank of Australia (1979) were

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2The ‘offset coefficient’ is the coefficient of change in net domestic assets. The latter is used as a right hand side variable in an equation explaining capital flows. Changes in net domestic assets are taken to be indicative of monetary policy so that a coefficient of minus one is interpreted to mean that monetary policy is completely offset by capital flows.
reluctant to adopt a flexible exchange rate regime. The Treasury sought to use an overvalued Australian dollar to fight inflation by lowering the level of activity in the economy as well as depressing the price of imports in the consumer price index. In addition, given the rigidities that existed in the Australian labour market at the time, there were fears that a float would initially lead to depreciation of the Australian dollar and increases in domestic prices which, through wage indexation, would feed into wage increases. The resulting loss in Australia’s international competitiveness would lead to further depreciation and wage-price increases in a self-perpetuating spiral (Obstfeld 1983, Whitehead 1986 private communication).

By 1983, the ineffectiveness of exchange controls in Australia in preventing integration with world financial markets was made apparent by two bouts of speculative flows across the exchange: the first was a speculative outflow before the election in March 1983 resulting in a 10 per cent devaluation, the second was a speculative inflow in December 1983 in anticipation of a revaluation. It was inflation, together with technological advances and financial innovations integrating the Australian market with international capital markets, that forced the decision to liberalize the foreign exchange market.

Even though there does not appear to be similar evidence in New Zealand that financial innovation significantly eroded the effectiveness of capital controls, their success in impeding foreign exchange flows is highly questionable (Carey and Duggan 1986). In June/July 1984 prior to the 20 per cent devaluation, substantial outflows occurred even within the current account. As in Australia, the need to have an effective anti-inflationary monetary policy was an important reason for floating the New Zealand dollar. Even more so than in Australia, however, inflation and interest rate ceilings had so reduced real interest rates that domestic savings were seriously discouraged. Added to this, exchange controls, to the extent that they were effective, prevented New Zealanders from taking advantage of higher real rates of return elsewhere in the world, a process that would have put upward pressure on nominal interest rates in New Zealand (Spencer and Carey 1988). In the event, domestic investments were artificially encouraged, particularly in real assets for which inflation had resulted in non-taxable capital gains (e.g. in commercial buildings). Removing interest rate and foreign exchange controls was seen to be an important step in rectifying the serious misallocation of resources in the New Zealand economy brought on, amongst other things, by accelerating inflation.

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3The Reserve Bank of New Zealand confirmed that most of the net outflow appears to have arisen from the ability to alter the timing of the payment for imports and the repatriation of export receipts. However, the possibility of capital transference being disguised as current transactions cannot be ruled out, particularly as some New Zealand merchant banks were also authorized foreign exchange dealers at the time.
Increased government sector borrowings

Substantially larger government deficits were also common to both countries in the latter part of the 1970s. Government deficits as a proportion of Gross Domestic Product (GDP) in Australia rose from an average of 1.2 per cent per annum in the first half of the 1970s to an average of 3.8 per cent per annum in the second half of the 1970s. Comparable figures for New Zealand were 2.3 per cent and 6.7 per cent respectively. Large government expenditures coupled with an unwillingness to increase taxes meant that the deficits had to be financed by borrowings. Public sector borrowing requirements in Australia averaged 4.7 per cent of GDP in the second half of the 1970s, and rose to almost 7 per cent of GDP by 1983-84.

The larger presence of governments in the financial markets further eroded the market shares of banks, in addition to the erosion caused by non-bank financial intermediaries. It is generally recognized, for instance, that the Australian Savings Bonds introduced by the government in 1976, and paying attractive rates of interest, absorbed a large share of savings that had traditionally gone to banks (Carew 1985). Likewise, the high yielding inflation adjusted bonds as well as the first Kiwi Savings Stock introduced in 1983 in New Zealand attracted very large volumes of savings away from domestic financial institutions.

Substantial increases in government borrowings necessitated a more market oriented sales program for government securities including more market oriented interest rates. The tender system for selling government securities replaced the 'tap' system in both Australia and New Zealand in the early 1980s. In theory, the tender system enabled the authorities to determine the quantities of government securities to be offered, while the market (i.e. the bidders) determined the interest rates on these securities. The authorities could therefore be more confident that the securities on offer would be taken up. In contrast, the earlier 'tap' system meant that the authorities had to determine the interest rates on the securities, and the market then determined the amount to be taken up. In practice, when yields on government securities were below market during much of the 1970s, the institutions taking up government securities were predominantly the captive ones, those required to hold certain proportions of their assets in that form. As growth in these institutions stagnated due to the increased costs of the tax implied by the regulations, the sale of government securities likewise stagnated (one exception to stagnating growth in that period were life insurance companies in Australia).

The efficient working of the tender system was frustrated by the existence of interest rate ceilings on government securities. For example, in New Zealand between September 1983 (when the tender system was introduced) and July 1984 (when the government was willing to accept market
interest rates on its securities), it was clear from the bids accepted that the government was not willing to pay more than 11 per cent on conventional stock and 6 per cent on index-linked stock. Consequently, subscription ratios were, on several occasions, insufficient to cover even two-thirds of the tenders. On the other hand, the tenders offered after July 1984 had subscription ratios three to four times greater than the amount on offer (Reserve Bank of New Zealand August 1985). Hence, large government borrowing requirements necessitated a market oriented system for selling government securities, namely a tender system without interest rate ceilings.

Once the government securities were paying market interest rates, however, the ratio controls became redundant, as institutions would then hold those securities willingly as part of their portfolio choice.

It is clear therefore that both in Australia and New Zealand, large public sector borrowing requirements in the latter part of the 1970s and early 1980s were an important force behind removal of interest rate ceilings and deregulation of ratio controls on financial institutions.

Advances in information technology

It has been pointed out (Harper 1986) that financial intermediation is an information intensive industry, so that the information revolution in the 1970s substantially changed the cost structure of the industry. In Australia, Swan and Harper (1982) argued that the relative lack of union pressure in the non-bank financial intermediaries as well as the more competitive environment in which these institutions operated led them to adopt labour saving technologies ahead of the banks. In addition to the factors discussed above, this step further enhanced the competitiveness of the non-banks vis-à-vis the banks.

Technological advances also enhanced financial innovation by increasing the variety of financial instruments available and by reducing the costs of their introduction into the market place. Some of these new instruments hurt the banks by enabling non-banks to provide close substitutes for the services offered by banks, thereby reducing their market share. Financial innovation also enabled banks to circumvent regulations. Some examples of close substitutes to products offered by banks are telephone bill paying and automatic fund transfer facilities offered by building societies and credit unions in lieu of cheque accounts offered exclusively by banks. Another example is the mutual indemnity contract in Australia which led to the growth of currency hedging facilities offered by brokers and merchant banks in competition with official hedging facilities handled by the trading banks.

It was the growth of the private currency hedge market that underpinned the final decision to liberalize the foreign exchange market in Australia (Polasek and Lewis 1985). This development vividly illustrates the argument
that financial innovation in the market eventually led to deregulation in that market.

To prevent private capital flows from nullifying the effects of monetary policy in Australia under a fixed (and later a crawling peg) exchange rate regime, many private capital transactions were discouraged. The regulatory framework sought to separate trade transactions from capital transactions. One development was the official hedge market, where the Reserve Bank set the forward rate and stood by as dealer-of-last-resort while the four major trading banks were given exclusive authority in foreign exchange dealings and acted as agents for the Reserve Bank in vetting each transaction involving foreign exchange, including forward foreign exchange cover. Legitimate trading transactions were permitted cover while most capital transactions were not given cover. The generalized float after 1973 increased the magnitude of exchange risks for the Reserve Bank in its role as dealer-of-last-resort, and, in an effort to limit its exposure to exchange risks, the Reserve Bank further restricted the eligibility criteria for official forward cover so that even some trade transactions could not be covered.

This spurred the development of the mutual indemnity contract whereby the parties (exporters/importers/borrowers/lenders) agreed to indemnify one another against capital losses brought about by exchange rate changes. The contracts were to be settled in Australian dollars so that they escaped exchange controls. The contracts were open to capital as well as trade transactions.Merchant banks initially acted as brokers but soon entered the market as principals. This move greatly enhanced the growth of the private currency hedge market. All transactions (current and capital) could then be summed and settled in Australian dollars. Only when actual funds had to be transferred out of Australia would exchange control regulations apply. At that point, it was not difficult to disguise capital transactions so that in practice, the new financial instrument (namely, the indemnity contract) circumvented exchange control regulations regarding private capital flows.

Official sanction was given to the private currency hedge market in 1975, and the merchant banks in that market were so successful and provided such competition for the banks that by 1979 the Australian government had to permit the trading banks to conduct their own interbank hedge market.

More importantly, the private currency hedge market provided a channel through which private capital flows could occur and be covered forward. Demand for foreign borrowings came in the early 1980s during the resources boom in Australia. The subsequent build-up of large amounts of foreign debt formed a pool of potentially volatile funds (aided no doubt by international funds transfer facilities) that provided the basis for the massive speculations in 1983 which led to the float and abolition of exchange control regulations mentioned earlier in this paper.
This episode clearly demonstrates the point made by the Governor of the Reserve Bank that deregulation 'is a deliberate step: it is an official recognition or sanction of change' (Reserve Bank of Australia February 1986:1). It is undeniable that change had been occurring in the financial markets of Australia and New Zealand as a result of common developments in the 1970s, namely accelerating inflation, large government budget deficits, advances in information technology and financial innovations. In turn, change in the financial markets brought about a confluence of public and private forces in favour of liberalization (Harper 1986).

Public interest and private interest

It has been argued so far that by the 1980s a good case existed for deregulation in the Australian and New Zealand financial and foreign exchange markets from the point of view of macroeconomic management, prudential considerations, efficient allocation of resources and redistribution. In short, a convincing case existed for liberalization in the public interest.

At the same time, the increasing loss of market shares on the part of the banks as a result of regulations formed a private interest argument for deregulation. Non-bank financial intermediaries were interested in opportunities to operate in sections of the market denied to them under regulations (for example, foreign exchange dealings and cheque account facilities). In fact, merchant banks were given foreign exchange dealerships in Australia in exchange for possible losses in market shares resulting from deregulation of banks. Bank employee unions and farmers both in Australia and New Zealand were prepared to trade off the advantages of a protected environment for the prospects of more employment from new banks in the first case (Harper 1986) and a lower value of the domestic dollar in the latter (Buckley 1987). Even the powerful home mortgage lobby in Australia was appeased by a series of gradual steps resulting in the fact that interest rate ceilings on home loans valued below A$100,000 would not be removed retrospectively from April 1986. Entry of foreign banks was sold to the Labor Caucus by the Australian Treasurer on the argument that the oligopolistic powers of the domestic banks should be challenged by bringing in competition from overseas banks.

Governments were able to reconcile private interests in the case of financial liberalization because inflation, large public sector borrowings, and financial innovation had already changed the way in which interest groups perceived the cost-benefit trade-off under regulation. The political climate in Australia and New Zealand was thus ripe for financial deregulation in the 1980s. Perhaps the main lesson to be learnt is that liberalization is not a unilateral decision on the part of governments. For it to be successful, liberalization must be underpinned by economic developments in the private sector.
Exchange rate overshooting and sequencing of liberalization

Experience in New Zealand

Ever since the 20 per cent devaluation in July 1984 and the floating of the New Zealand dollar in March 1985, the real exchange rate has appreciated, see Figure 2.4 As the real exchange rate expresses the relative prices of domestic and foreign goods measured in terms of foreign currency, the appreciation of New Zealand's effective real exchange rate means a deterioration in its international competitiveness. Figure 2 shows that by mid-1987 New Zealand had lost the competitiveness gained through the July 1984 devaluation and that the real exchange rate has been trending upward since then. Indeed, it has been argued (Buckle 1987) that the real exchange rate was prevented from trending upwards between the September quarter 1985 and September quarter 1986 only by the easing of liquidity conditions (and hence domestic interest rates) during that period.

Figure 2  Real effective exchange rate, New Zealand, 1980-88
(Base: June 1979 =100)

Source: Reserve Bank of New Zealand

The resulting squeeze on the export sector and on domestic activity in general has engendered fears that the entire liberalization process is being forced to slow down (Australian Financial Review 1988a,b,c,d). Reports of

4Note that nominal exchange rates for Australia and New Zealand are defined as units of foreign currency per unit of domestic currency. Hence, a rise in the nominal exchange rate means an appreciation of the domestic currency. Also, real exchange rate is defined in the IMF fashion (see supra) where P refers to the domestic price level; s refers to the spot nominal effective exchange rate; and P refers to the composite price level of the country's trading partners. Effective exchange rate is identical to the trade-weighted exchange rate.
union unrest and pressures from farmers and other exporters cannot be taken lightly. On the other hand, the success on the inflation front and the cutback in the budget deficit have generated optimistic assessments that domestic interest rates and exchange rates will fall by 1989 (Australian Business 1988). In any case, it seems to be generally agreed (Buckle 1987, Spencer and Carey 1988, van Wyngen 1988) that the currently high value of the New Zealand dollar does not reflect higher foreign investments because of improved productivity in New Zealand industries. Rather, capital inflows since liberalization of the financial and foreign exchange markets have been almost entirely in portfolio investments in response to interest rate differentials between New Zealand and abroad. In other words, real exchange rates have risen higher than are consistent with long run current account balance. They have been overshooting.

Exchange rate overshooting

The theory of exchange rate overshooting is well-established in the literature (Dornbusch 1976). In general, the theory is consistent with the argument that, in the short run, interest rates and exchange rates are determined by demand and supply of stocks of financial assets in the economy rather than by real factors such as productivity growth. Hence, nominal exchange rates can be quite volatile in the short run, fluctuating around their long run equilibrium levels. In the New Zealand case, liberalization of the financial and foreign exchange markets, together with tight monetary policy, led to rapid increases in nominal interest rates (treasury bill rate rose from about 14 per cent at the beginning of 1986 to a height of almost 25 per cent before easing to 17 per cent at the beginning of 1988). This greatly enhanced the attractiveness of financial assets denominated in New Zealand dollars, resulting in capital inflow and appreciation of the nominal exchange rate. If the lower prices of imports and overseas loan service resulting from such appreciation were to be fed through to the economy generally (perhaps via reductions in nominal wages and prices), then in theory, the real exchange rate need not appreciate. However, adjustments in the commodity and factor markets are much slower than in the assets market. Hence, the New Zealand price level would not have fallen while the New Zealand dollar had risen, making New Zealand exports uncompetitive in world markets. Therefore, a nominal disturbance (appreciation of the nominal exchange rate) results in real effects in the form of reduced exports and lower levels of economic activity.

Sequencing of liberalization

The phenomenon of real exchange rate overshooting would presumably be heightened when the foreign exchange market is deregulated while

\footnote{Inflation rate fell from 18.9 per cent in mid 1987 to 5.6 per cent in the year to September 1988. However, the 18.9 per cent included a 10 per cent value added tax introduced on 1 October, 1986. Nevertheless, the current New Zealand inflation rate is at or below that of its trading partners.}
substantial rigidity exists in the goods and factor markets. This constitutes the basis for the recommendation (McKinnon 1982, Mathieson 1986) that the foreign exchange market should be liberalized only after commodity, factor and financial markets have been liberalized. A related argument is that since investment decisions in financial assets can be reversed more quickly and with less cost than investments in real production, trade flows should be liberalized before international financial flows (Frankel 1983). These arguments constitute a body of literature known as the sequencing of liberalization. It has been the outgrowth of experiences with economic reforms in the mid 1970s in the Southern Cone countries, that is Argentina, Uruguay and Chile (McKinnon 1982, Edwards 1984, Krueger 1984).

It should be noted at this point that real exchange rate overshooting is a short term phenomenon, although no one can be precise about how short. Hence, the sequencing recommendations are ultimately judgements about the pressures that might arise during the restructuring process.

If such capital inflows are absorbed in real terms, this could force a trade deficit and real exchange rate appreciation in the economy. The resulting (severe) antiprotection in the production of tradeable goods then depresses the economy and impedes political momentum for eliminating import restrictions and export subsidies (McKinnon 1982:163).

The implication is that, by carefully liberalizing the economy in a certain sequence, the government could bring about a 'softer landing' than would otherwise be the case. A 'hard landing' could result in political pressures that threaten to disrupt the rest of the reform.

In the context of New Zealand, real exchange rate appreciation would have occurred even if New Zealand had stayed on the pegged exchange rate regime. The absence of an effective anti-inflationary policy would have resulted in declines in New Zealand's international competitiveness, unless matched by very timely and well judged devaluations (a very difficult task, in reality). On the other hand, an effective anti-inflationary monetary policy in the context of a pegged exchange rate regime would have required the authorities to extend the system of exchange controls by imposing controls on capital inflows and, judging by the experience of June/July 1984, control over current account items as well. In addition, there might have been need to tighten surveillance, perhaps by removing the foreign exchange dealerships from the merchant banks, and concentrating controls with the trading banks. The arguments in the first part of this paper have shown this to be quite contrary to the political climate of the day. Besides, as the Australian episode has shown, the authorities would have had a hard time stemming the forces of financial innovation. Therefore, in the case of New Zealand, careful sequencing of liberalization efforts was probably an unattainable ideal.
Experience in Australia

As mentioned earlier in this paper, deregulation of the financial and foreign exchange markets in Australia was virtually complete when the government committed itself to restructuring other sectors of the economy. On the other hand, there was no substantial tightening of monetary policy at the time of the float, since inflationary pressures were being reduced because of wage moderation resulting partly from the wages pause and the Prices and Incomes Accord. 'Strong upward pressures on interest rates at this stage of the recovery would not be favourable to activity or external trade' (Reserve Bank of Australia 1984:1). As Figure 3 shows, the real effective exchange rate appreciated somewhat over the course of 1984, but there was no sign of overshooting. Similar losses in international competitiveness were evident before 1983 (that is, before the float) because of high differential rates of inflation between Australia and its trading partners.

Figure 3 Real effective exchange rate, Australia, 1980-88


On the contrary, the real effective exchange rate of the Australian dollar depreciated throughout 1985, reaching a low point by mid 1986. At the same time, Australia's current account deficits grew to an all time high of 6.3 per cent of GDP, stemming mainly from the collapse in commodity prices. Fortunately, the Australian Treasury's fears of a depreciation - inflation spiral did not eventuate, perhaps as a result of the replacement of direct nominal

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6 The wages pause and then the Accord between the Government and the Australian Council of Trade Unions came after a particularly difficult year of high inflation and unemployment in 1982-83. The initial Accord has undergone several changes. However, the basic agreement contains various trade-offs for direct nominal wage indexing in the consumer price index including personal tax cuts and superannuation contributions from employers.
wage indexation by promises of tax cuts and superannuation benefits in the Prices and Incomes Accord. Real unit labour costs in Australia fell by about 10 per cent in the five years to 1988 (Australia, the Treasury 1988a). Hence, the depreciation of the nominal exchange rate resulted in a depreciation of the real exchange rate, and improvements in Australia's competitive position internationally.

In addition, it appeared that the Reserve Bank intervened in February and April 1985, August 1986 and early 1987 to prevent what it considered as unwarranted depreciation of the Australian dollar (Reserve Bank of Australia, Report and Financial Statement, 1985, 1986 and 1987). In fact, the Governor specifically referred to intervention efforts to alleviate the problem of overshooting (Reserve Bank of Australia, September 1987). Furthermore, there is econometric evidence from a monthly estimation of a portfolio balance model of the Australian financial sector since the float that the Reserve Bank intervened in the foreign exchange market to steady the real effective exchange rate, and that it sterilized about 48 per cent of its intervention efforts (Leung 1988).

Perhaps the difference in post-float experience between New Zealand and Australia lies in the relatively greater flexibility in the Australian labour market. Whatever the criticisms of the Accord (Australian Financial Review 1988a), real wages in Australia have fallen in recent years. According to Corden (1988), Australian labour unions may have finally learnt from the mistakes of the 1970s and early 1980s. Whether the severity of these lessons will tip the power balance between the unemployed and the employed so as to generate enough private interest support for deregulation of the labour market remains to be seen. As far as the financial markets were concerned, the Accord in the past five years seems to have resulted in a relatively lesser need (at least until recently) to have severely contractionary monetary policies to bring inflation under control, thereby leaving greater scope for the Australian Reserve Bank to engage in sterilized interventions.

Challenges of a deregulated financial environment

Better balance of macroeconomic policies

One of the main advantages of liberalization is that prices are allowed to become signals for allocation of resources in the economy. However, as this paper has already emphasized, financial prices such as exchange rates have a tendency to overshoot in the real world which is full of rigidities in other markets. Given that careful sequencing may be impracticable, then the challenge for governments lies in a better balance of macroeconomic policies so that no undue pressure is placed on domestic interest rates leading to overshooting of exchange rates.
In Australia, fiscal policy in the last five years has been restrictive, and has taken some of the pressure off domestic interest rates. The total public sector borrowing requirement has been reduced to zero compared with almost 7 per cent of GDP in 1983-4 (Australia, The Treasury 1988). This, together with the Prices and Incomes Accord, contributed significantly to transforming the nominal exchange rate depreciation of 1985-6 into real depreciation (as shown in Figure 3) which, in turn, created opportunities for expansion of exports. At the same time, employment has grown by 17 per cent since 1983, and the unemployment rate has fallen from 10.5 per cent to around 7 per cent (Australia, The Treasury 4 October 1988). The outcome has been a more receptive political climate for industry restructuring and microeconomic reforms the need for which was made apparent by the declining terms of trade and rapidly depreciating value of the Australian dollar in 1985-6.

It does appear therefore that financial deregulation, removal of exchange controls and floating of the Australian dollar in the first half of the 1980s required the Australian government to adopt a better balance of macroeconomic policies. In turn, this created an easier political climate for undertaking the microeconomic reforms in Australian industry assistance that should enable the country to attain higher long term economic growth. However, the battle is far from over. The recent current account deficits in Australia associated with appreciation in the real exchange rate back to the early 1985 levels (see Figure 3) could well be a sign of overshooting again. Perhaps excessive reliance is again being placed on monetary policy to curb economic activity and imports without sufficient regard to the relative price effects on trade of an above equilibrium value of the Australian dollar. In addition, the implementation of microeconomic reforms may not have been sufficiently rapid to avoid supply constraints leading to overheating of the economy.

Fiscal as well as monetary policy restraint is also behind the New Zealand government’s reform package. However, in spite of significant decreases in the budget deficit, the actual outcomes still exceeded the projected deficits in the past three years (Wells 1987). This, together with insufficient flexibility in the labour market, could have contributed to the difficulties experienced by the export sector.

Volatility of exchange rates

In addition to the tendency for exchange rates to overshoot, another challenge posed by the liberalization of financial and foreign exchange markets in Australia and New Zealand is the volatility of exchange rates. Floating currencies have, of course, shown much greater volatility than fixed exchange rates. The relative volatility of different currencies is also of interest. Table 3 compares the variability of the New Zealand and Australian dollar with other major currencies and shows that the New Zealand dollar, but
not the Australian dollar, has been more volatile than the other major currencies.

Table 3  Exchange rate volatility* (April 1985-December 1987)

<table>
<thead>
<tr>
<th>Currency</th>
<th>Daily movements</th>
<th>Monthly movements</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Zealand dollar</td>
<td>1.04</td>
<td>3.96</td>
</tr>
<tr>
<td>Japanese yen</td>
<td>0.76</td>
<td>3.21</td>
</tr>
<tr>
<td>Australian dollar</td>
<td>0.86</td>
<td>2.94</td>
</tr>
<tr>
<td>United Kingdom pound sterling</td>
<td>0.89</td>
<td>2.51</td>
</tr>
<tr>
<td>German deutschmark</td>
<td>0.88</td>
<td>2.58</td>
</tr>
</tbody>
</table>

*Standard deviations of first differences in logs of daily (monthly average) exchange rates, multiplied by 100; exchange rate measured against US dollar.


At the same time, it should be recognized that under the pegged exchange rate regime, the volatility inherent in the economy manifests itself in different ways. In particular, it shows up in domestic monetary conditions. The following Figure 4 shows cash rates (that is, the rate on overnight and call funds) for the three full months prior to the float in December 1983 compared with the cash rates in the same three months two years after the float. The reduced volatility is quite remarkable. According to the Reserve Bank,

The standard deviation of the daily movement in the official cash rate was 2.64 percentage points in the two years before the float. In the three years since the float it has averaged 0.86 per cent (Reserve Bank of Australia, December 1986:7).7

The challenge of exchange rate volatility for the financial sector has been to develop instruments which will help participants in the foreign exchange market to handle the increased risks involved. A variety of instruments, including forward and futures markets, have been developed for this purpose.

Although there have been claims that the greater exchange rate volatility has had adverse effects on trade flows, the evidence is not at all well established (IMF 1984, Spencer and Carey 1988).8 Furthermore, the effect of

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7Official cash rate refers to the interest rate on overnight and call money in the official money market where the Reserve Bank of Australia deals with the official money market dealers in its market operations. Offical in this context does not mean administered.

8In a more recent study, de Grauwe (1988) found some evidence to support the theory that overvaluation of real exchange rates leads to protectionist measures which are not removed during periods of under-valuation. Hence, exchange rate variability reduces trade. However, de Grauwe notes that declines in growth rate of GDP in the OECD countries that he studied are, by far, the most important factor behind the reduction in trade growth amongst these countries. Yet regressing changes in trade on changes in GDP obviously entails simultaneity problems in the single equation model that he has estimated.
greater volatility on margins charged in the New Zealand foreign exchange market is unclear (Buckle 1987).

Figure 4 Cash rates (% p.a.) for Australia, August to October 1983 and August to October 1985

Source: Extract from Reserve Bank of Australia, Bulletin, December 1986:7

Financial growth, diversification and re-intermediation

An important objective of financial liberalization was to increase competition in the financial sector and the economy more generally. The introduction of sixteen new banks in Australia and ten new banks in New Zealand highlighted the process of competition in the financial sector. The existing banks in both countries have responded by diversifying from
traditional areas of financial intermediation to other related types of financial services such as investment and financial planning and advice (including overseas investment advice), risk management, data processing and information systems. This development is to be expected as the nature of the inputs consists largely of human capital and information - a combination that can be applied with relative ease and considerable economies gained from diversification into related services (Harper and Karacaoglu 1987).

As a result, since deregulation, both countries have seen financial re-intermediation towards banks and away from fringe institutions. As Table 2 (above) indicates, in Australia the banks' share of total assets of the financial sector has been increasing since 1983. There is also some evidence in Australia indicating a shift away from direct financing towards intermediation (Reserve Bank of Australia, October 1987). This should bring gains in efficiency through economies of scale.

The pressing need to acquire economies through diversification, together with the temporary shortage of skilled personnel and the efficiency gained through such personnel working as a team rather than as individuals, means that mergers and acquisitions would be the preferred arrangement for achieving diversification (Harper and Karacaoglu 1987). These have indeed been occurring in Australia and New Zealand post-liberalization. Mergers amongst finance companies, stockbrokers, merchant banks and building societies in New Zealand are documented in Harper and Karacaoglu (1987), and amongst Australian banks and stockbroking firms in Carew (1985).

Although increased competition, rationalization and diversification to take advantage of economies of scope would arguably lead to efficiency gains in the financial markets, the rapidly changing financial landscapes also bring new challenges for the monetary authorities. Some of the notable ones include prudential controls, the interpretation of monetary aggregates, and the transmission of monetary policy in a deregulated environment.

**Prudential supervision**

Rapid growth and increased competition leading to diversification and rationalization in the financial services industry raise the question of the viability of some of the financial intermediaries. As loss of confidence can spread very quickly in financial markets, the stability and integrity of the payments system (both domestic and international) clearly concern governments. There is no doubt that some degree of prudential supervision is necessary, but the difficulty lies in deciding whom to supervise, on the effect of such supervision on competition in the industry, and on how to supervise activities that are conducted increasingly in other countries (Reserve Bank of Australia, February 1986).
The Australian Reserve Bank has specific legislative responsibilities for protecting the depositors of banks. Hence a degree of supervisory power is exercised particularly in regard to the minimum capital ratio which is higher for new banks than for existing trading banks. The argument is that until new banks establish their deposit base and their credibility in Australia, there is a need to ensure extra prudence.

The New Zealand Reserve Bank, on the other hand, does not include protection of bank depositors as part of its supervisory duties. Rather, it limits its role to the monitoring of all financial institutions, and makes arrangements for the orderly exit of institutions that are no longer viable. What this would mean for depositors who could lose most or all their deposits remains to be seen.

Supervision of activities that are increasingly being conducted in foreign countries is being worked out in international fora (for example, the Basle Concordat). Judging by the rather different approaches towards prudential supervision between Australia and New Zealand, it may be quite difficult to secure international agreements on the supervision of activities that cross national borders.

What is money and how does monetary policy work?

The removal of interest rate controls and exchange controls, together with the floating of the currency, certainly gave the two Reserve Banks control over the money base. In this sense, deregulation has made the instruments of monetary policy much sharper. However, this does not mean that the implementation of monetary policy is any easier. Both Reserve Banks have observed large increases in M3 post-deregulation, and this could well have been the result of financial re-intermediation towards the banking sector, as discussed earlier. Furthermore, market determined interest rates and exchange rates can be strongly influenced by expectations of, for instance, inflation or budget deficit outcomes. Hence, not only has the composition of monetary aggregates and credit been changing as a result of deregulation, but the relationships between these aggregates and interest rates, exchange rates, income and prices have become unclear.

It is not surprising that Stevens, Thorp and Anderson (1986) found that several specifications of money demand equations for Australia using M3 were unstable when updated to include data post-deregulation. In theory, money is defined as the only asset that is readily used in transactions and yet it does not pay interest. This definition is fast becoming obsolete, and with it, our understanding of how monetary policy works.

As a result of these difficulties from December 1984 conditional projection for M3 was suspended in Australia and was replaced by a
Continuous review of economic indicators in addition to the monetary aggregates - the so-called 'checklist'.

Similar difficulties are being experienced in New Zealand, and rigid targeting of any one particular financial variable is also being avoided (Spencer and Carey 1988).

In the meantime, the theoretical relationships between money and interest rates and the transmission of monetary policy in a deregulated world are topics of active current research in the central banks (see Blundell-Wignall and Thorp 1987, Morris 1988).

Conclusions

Financial liberalization in both Australia and New Zealand was rapid and far reaching. This paper has argued that accelerating inflation, large government deficits, and financial innovation resulting from advances in information technology in the last decade created a political climate conducive to successful deregulation of the financial and foreign exchange markets in the two countries. Research done within the Reserve Banks, Treasuries, and academia has facilitated the process of deregulation. Likewise, skilful management enabled the implementation of the results of research.

This paper has argued that liberalizing financial and foreign exchange markets in sequence is neither practicable nor necessary. In Australia, financial deregulation required the government to adopt a better balance of fiscal and monetary policies, supported by some sort of incomes policy such as the Prices and Incomes Accord. This seemed to have engendered a smoother transition initially, and generated a climate that was conducive to restructuring the other sectors of the economy. In spite of difficulties caused by exchange rate overshooting, New Zealand’s success in controlling inflation would mean that pressures on monetary policy and the New Zealand dollar could ease. Likewise, current experience in Australia’s external balance will require the government to increase the momentum of microeconomic reforms and to maintain a consistent balance of macroeconomic policies.

In this way, financial liberalization is not only an official recognition of change that has been occurring in the financial sector, but is itself a catalyst generating further changes both in the financial sector and the economy more generally.
Chronology of financial market deregulation, Australia¹

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979</td>
<td>January</td>
<td>Establishment of (Campbell) Committee of Inquiry into the Australian Financial System</td>
</tr>
<tr>
<td></td>
<td>December</td>
<td>Introduction of tender system for Treasury Note sales</td>
</tr>
<tr>
<td>1980</td>
<td>December</td>
<td>Removal of interest rate ceilings on deposits with trading and savings banks</td>
</tr>
<tr>
<td>1981</td>
<td>February</td>
<td>Banking authority granted to Australian Bank Limited</td>
</tr>
<tr>
<td></td>
<td>June</td>
<td>Treasurer authorizes mergers between Bank of New South Wales and Commercial Bank of Australia and between National Bank of Australasia and Commercial Banking Company of Sydney</td>
</tr>
<tr>
<td></td>
<td>August</td>
<td>Minimum maturity on trading bank certificates of deposit reduced from three months to thirty days</td>
</tr>
<tr>
<td></td>
<td>November</td>
<td>Final Report of Campbell Committee tabled</td>
</tr>
<tr>
<td>1982</td>
<td>June</td>
<td>Cancellation of quantitative bank lending guidance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Introduction of tender system for Treasury Bond sales</td>
</tr>
<tr>
<td></td>
<td>August</td>
<td>Relaxation of portfolio controls on savings banks</td>
</tr>
<tr>
<td>1983</td>
<td>March</td>
<td>Australian Labor party elected to government</td>
</tr>
<tr>
<td></td>
<td>May</td>
<td>Establishment of Martin Review Group</td>
</tr>
<tr>
<td></td>
<td>December</td>
<td>Australian dollar floated; exchange controls abolished</td>
</tr>
<tr>
<td>1984</td>
<td>February</td>
<td>Report of Martin Review Group tabloped</td>
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<td></td>
<td>April</td>
<td>Deregulation of Australian stock exchanges</td>
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<td></td>
<td>June</td>
<td>Authorities to trade in foreign exchange granted to forty non-banks</td>
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<td></td>
<td>August</td>
<td>Removal of minimum and maximum maturities on trading and savings bank interest-bearing deposits. Savings banks permitted to offer cheque facilities on all accounts</td>
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<td></td>
<td>September</td>
<td>'3020' rule abolished</td>
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<td>1985</td>
<td>February</td>
<td>Sixteen foreign banks invited to establish operations in Australia</td>
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<td></td>
<td>April</td>
<td>Removal of remaining ceilings on bank loan interest rates except ceiling on loans for owner occupied housing of amounts less than A$100,000</td>
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<td>May</td>
<td>LGS (Liquid Assets plus Government Securities) convention replaced by Prime Assets Ratio arrangements</td>
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<td></td>
<td>July</td>
<td>Treasury Indexed Bonds first issued</td>
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<td></td>
<td>October</td>
<td>Relaxation of foreign investment policy relating to non-bank financial intermediaries</td>
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<tr>
<td>1986</td>
<td>April</td>
<td>Interest rate ceiling on banks' loans for owner occupied housing of less than A$100,000 approved from 3 April, was removed. Interest rate subsidy to assist savings banks to maintain their existing deposits</td>
</tr>
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</table>

J une  Exposures to individual clients or groups of related clients in excess of 10 per cent of shareholders' funds of the banking group to be reported regularly to the Reserve Bank

J uly  Interest paid to non-residents by Offshore Banking Units (OBUs) in respect of foreign currency deposits to be exempt from interest withholding tax. All lending by OBUs must be to non-residents. Dividend withholding tax and Branch Profits Tax abolished

A ugust  Maximum permitted foreign ownership of authorized dealers raised from 25 to 50 per cent

S eptember  Banks established before 1981 required to maintain minimum capital ratios in the vicinity of 6 per cent of total assets, one per cent higher than previous minimum. Trading banks established after 1981 required to keep a minimum capital ratio of 6.5 per cent

N ovember  Relaxation of restrictions on investments at interest in Australia by foreign governments and their agencies. Enactment of Cheques and Payment Orders Act providing for, inter alia, new cheque-like instruments ("payment orders") to be drawn on certain non-bank financial intermediaries

D ecember  Savings banks allowed to deposit with or lend money to a parent or subsidiary savings bank

J anuary  Prior notification to be given to Reserve Bank of intention to enter into exceptionally large exposure to an individual client on the part of a banking group

M arch  Restrictions on authorized money market dealers' holding of assets with more than five years to maturity was removed

A pril  Reserve assets ratio applying to savings banks reduced from 15 to 13 per cent. Ratio to be removed from Savings Banks Regulations to become part of the prudential arrangements administered by the Reserve Bank. Deposit interest subsidy scheme for savings banks (introduced in April 1986) not renewed

M ay  Government announced decision to amend Banking Act 1959 to make more explicit Reserve Bank's powers in relation to prudential supervision of banks

O ctober  Proposal to amend the Commonwealth Banks Act to enhance competitiveness of the Commonwealth Banking group by enabling it to provide a wider range of services, including insurance

J anuary  Reserve Bank would trade with the public in small parcels of Treasury bonds

A ugust  Abolition of Statutory Reserve Deposit requirement which would be replaced by a new non-callable deposit set at 1 per cent of both trading and savings bank assets

T reasurer announced the intention to abolish the distinction between trading and savings banks
Appendix 2

Chronology of financial deregulation, New Zealand, July 1984 to January 1988

1984

July 20 per cent devaluation of the New Zealand dollar

Removal of controls on lending and deposit rates except trading bank deposits of less than thirty days and ordinary 3 per cent savings accounts

Marginal ratio policy applicable to finance companies removed

August Reserve Bank discount window opened to all holders of government stock with a maturity of less than six months

Abolition of the 'thirty day rule' which had hitherto prevented payment of interest on trading bank deposits of less than thirty days

Removal of restriction which limited the rate of interest payable on ordinary savings account to 3 per cent

Removal of the one per cent per month credit growth guideline

September Withdrawal of three export credit assistance facilities administered by the Reserve Bank: the Short Term Export Credit Facility, the Back to Back Facility for Long Term Export Finance, and the Rediscount Facility for Developing Markets

Removal of Reserve Bank approval of (and last resort loan support for) the four dealing companies operating in the official short term money market

October Removal of restrictions on maturity and interest rates of private overseas borrowings

November Removal of restrictions on the access of overseas owned companies operating in New Zealand to domestic financial markets

Removal of restrictions on New Zealand financial institutions borrowing offshore (although specific currency exposure limits were not removed)

December Removal of restrictions on New Zealand residents purchasing foreign exchange for investment purposes

1985

January Reserve Bank to begin paying interest on trading bank settlement account balances at an initial rate of 5 per cent

Tight system for issuing Treasury bills replaced by tender system

February Abolition of all compulsory ratios on financial institutions, including the trading banks' reserve asset ratio, public sector security ratios for a wide range of institutions, and the housing/farming investment ratios which applied specifically to life insurance companies and pension funds. The Post Office Savings Bank voluntary ratio still remained

March New Zealand dollar floated

November New Bank Policy allowing institutions to call themselves banks provided they satisfy the following:

- issued capital at AS$30 million, with at least AS$15 million paid up;
- substantial business in deposit/lending functions;

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a well spread shareholding, or firm internal controls to protect depositors from undue loan concentration or connected lending;
- demonstrable banking expertise, plus willingness and capacity to make a positive contribution to the development of the finance sector;
- good standing in the financial community.

No artificial limit on the number of institutions able to qualify for bank status. No distinction between trading and savings banks

Legislation to be introduced to strengthen the Reserve Bank’s supervisory powers which will aim at stability of the system rather than guarantees to individual institutions or depositors

December Increase in the interest rates paid on settlement balances and more frequent adjustments to maintain approximate stable relationship with market rates

March to May Liberalization of the New Zealand Stock Exchange

July Budget - continued import liberalization and review of industry plans

June Budget - sale of government assets to pay off debt. The government will sell shares in a number of its businesses including New Zealand Steel, the Development Finance Corporation, Petrocorp and Air New Zealand

December An increase in the Goods and Services Tax to 12.5 per cent not earlier than 1 October 1988. A four year program of tariff reductions on goods not subject to industry plans and a two step reduction in rates of duty on cars

December Roger Douglas sacked

January A December quarter price increase of 1.2 per cent gave a new low annual inflation rate of 4.7 per cent
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