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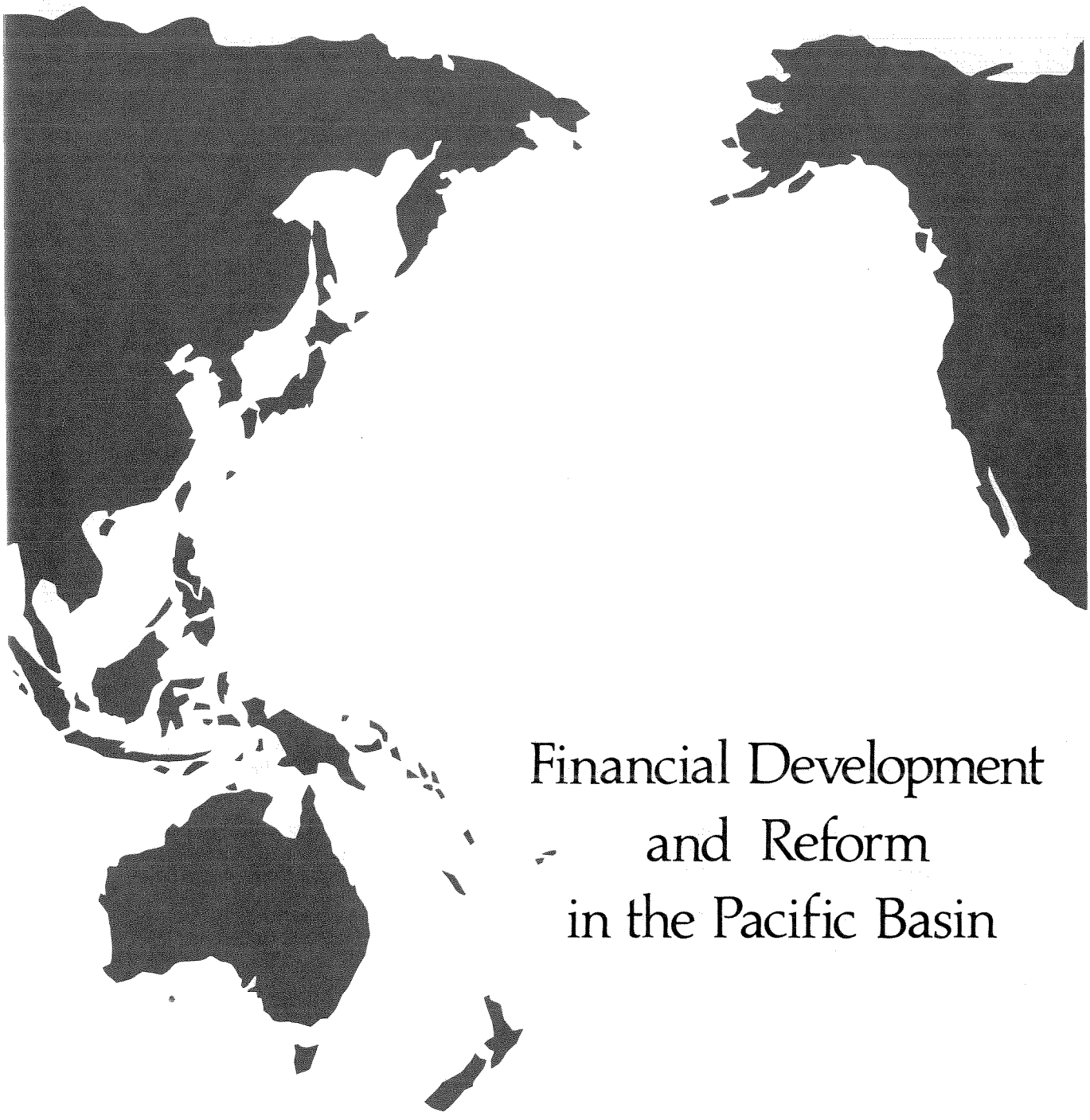

Financial Development and Reform in the Pacific Basin

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Financial Reform In Australia and New Zealand

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After two decades of discussion, financial reform is now finally sweeping through the United States. The Depository Institutions Deregulation Act of 1980 and the Depository Institutions Act of 1982 are the beginnings of a movement that will significantly alter the competitive structure of the nation's financial system. Similar movements are occurring in several nations on the other side of the Pacific Basin, notably Japan, Australia, New Zealand, and the Philippines. There are reports that other countries—Korea, Taiwan, and China—are also considering reforming their financial systems.

Over the last dozen years, rapid changes have taken place in national financial markets as a result of worldwide inflation and recession, technological advances in communications and information systems, as well as the need to float unprecedented amounts of government securities in national capital markets. In the face of these changes, many outmoded concepts about conducting monetary and regulatory policies have had to be abandoned. Because these changes necessarily take place in the context of a nation's political and institutional framework, only by examining the actual experiences of various nations can we gain insight into the dynamic, symbiotic changes in market conditions and government economic policies.

Australia and New Zealand's experiences provide two interesting cases for study. Working with essentially similar financial structures and regulatory frameworks, the authorities in the two nations reacted in markedly different ways to the inflationary pressures that strained both their financial structures.

New Zealand, in 1972, broadened and tightened regulatory controls over financial activities in the hope of containing inflation and ensuring an adequate supply of credit to "priority" sectors. The apparent failure of the policy to achieve its objectives and the growing market distortions that resulted altered the authorities' perception of the market's mechanics. In 1976, the government of New Zealand began a series of far-reaching financial reforms that, by 1980, led to the lifting of most financial market controls. But in November 1981, as inflation continued unabated, the authorities reversed the course of financial reform and reimposed interest-rate controls.

In contrast, the Australian authorities reacted to the rising inflation of the early 1970s by raising interest-rate ceilings and permitting the regulated trading banks to diversify their activities through subsidiaries in the unregulated markets. This more flexible approach mitigated the pressures in the financial system and helped stave off the need for reform. However, over time, market distortions accumulated and the drawbacks of the regulatory framework became evident. Deregulation started in 1980. Once begun, the movement gathered momentum and now the authorities are considering a thorough overhaul of the financial system.

Regulations as Monetary Policy

In reviewing Australia's and New Zealand's experiences, one should bear in mind that during the 1970s the monetary authorities in both countries used regulatory policies—such as interest-rate controls, restrictions on assets and liabilities of financial institutions, and direct credit controls—to attain macroeconomic policy objectives. These policy tools were considered by the authorities to be essential, integral instruments of *monetary* policy.[1] In contrast, the prevailing economic thinking in the United States regards the tool of monetary policy as consisting primarily of the ability to influence the aggregate supply of money or credit to the national

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economy; rules of conduct for financial institutions, to promote (or limit) competition or to ensure the soundness of the financial system, are considered instruments of regulatory policy.

This conceptual dichotomy, which did not exist in Australia and New Zealand in the 1970s, points to an important institutional difference between the United States on the one hand and Australia and New Zealand on the other. In the United States, monetary policy is conducted primarily through open money markets that did not exist in Australia and New Zealand. Unable to conduct open-market operations, their monetary authorities relied to a large extent on regulatory policies for adjusting the aggregate money (or credit) supply to the needs of the national economy. As inflationary pressures rose in the 1970s, market forces managed to bypass the regulatory controls. Not only did the authorities fail to attain their macroeconomic policy objectives, they also distorted the market. Moreover, as the regulatory controls grew tighter, they reduced the chance for an open money market to develop and made the monetary authorities even more dependent on regulatory control for attaining macroeconomic policy objectives. When the authorities realized the futility of this policy approach in their institutional environment, they instituted sweeping financial reforms. In New Zealand, reform took place between 1976 and 1980; in Australia, between 1979 and 1980. The reforms removed not merely regulatory controls, but the idea of using regulatory controls to attain macroeconomic policy objectives.

The rest of this paper is divided into six sections. Section I includes a brief sketch of the two nations' financial systems to familiarize the reader with their financial structures. The next three sections contain a study of the two countries' experiences with the use of regulatory controls to pursue macroeconomic policy objectives. The study concentrates on the use of interest-rate controls, asset and liability restrictions, and direct credit controls. These three sections precede a review of financial reforms in the two countries and the recent retractions in New Zealand. The conclusions are in the final section.

I. The Financial Systems

A simple comparison in terms of the number of institutions in various categories serves well to identify the key characteristics of the financial structures of Australia and New Zealand. Table 1 sets out these characteristics.

First, the banking systems and savings institutions in both Australia and New Zealand are highly concentrated. In Australia, seven nationwide trading banks account for 87 percent of the total banking assets; in New Zealand, five account for all.[2] Moreover, the large trading banks also own the large savings banks in each nation. Indeed, the two types of business are often conducted on the same premise by the same teller serving the two legally separate institutions. The high concentration in banking and savings institutions facilitates the use of regulatory measures for the attainment of macroeconomic policy objectives.

Second, in both Australia and New Zealand the government participates directly in the financing of national economic activities in competition with private institutions. This is a feature that Australia and New Zealand share with virtually all the developing nations in the Pacific Basin region.

Third, in addition to the commerical banks and savings banks, Australia and New Zealand's financial systems also consist of large numbers of credit cooperatives, finance companies (for lending to households and small businesses), security dealers, life insurance companies, general insurance companies, and pension funds. With a population of 14 million in Australia and 3 million in New Zealand, these two countries' financial systems appear to possess as full a complement of financial institutions as other developed countries. We may presume that market forces are as strong.

Fourth, there is almost no foreign participation in Australia's and New Zealand's commercial banking sector.[3] The virtual exclusion of banks from outside their borders reflects the two nations' tradition of protectionism in banking. This insulation from foreign competition has accentuated the oligopolistic condition of their banking markets and possibly slowed market adjustments.

Policy Objectives and Regulatory Controls

The Reserve Bank of Australia and the Reserve Bank of New Zealand are the central banks of the respective nations. Their responsibilities can be broadly classified into three areas: (a) *macroeconomic policy objectives*, such as full employment, price stability, economic growth, and international payments equilibrium; (b) *prudential regulation* for maintaining the stability and smooth functioning of the financial system; and (c) *sectoral credit policy* for ensuring the availibility of credit on "reasonable" terms to priority sectors, such as the government, housing, export, and farming.

During the 1970s, the monetary authorities attempted to achieve these diverse policy objectives by employing a variety of policy tools. Besides traditional monetary policy instruments (such as foreign-exchange management, bill discounting and advances to banks), they relied to a large extent on regulatory control of financial institutions. These controls consisted primarily of interest-rate controls, restrictions on financial institutions' assets and liabilities, and direct credit controls. In the following, we shall examine their use and assess their effects on the financial markets and their effectiveness in achieving the policy objectives.

II. Interest Rate Controls

In the early 1970s, the authorities in Australia and New Zealand believed it essential for them to assure the availiability of credit to at least the "priority" borrowers at "reasonable" costs. This they sought to achieve by regulating the volume and direction of credit extension and by setting ceilings on interest rates banks were allowed to charge. Since setting maximum loan rates without controlling the cost of banking funds would not be a workable policy, it was deemed necessary to regulate maximum deposit rates as well.

Interest Rate Ceilings

In the 1970s, Australian banks and savings institutions were subject to loan rate ceilings. Early in that decade, the control presented no real restriction as banks could charge more than the rate of con-

TABLE 1
STRUCTURE OF THE FINANCIAL SYSTEM

		Australia	New Zealand
A)	**Deposit-Taking Institutions**		
	Commercial banks	7 nationwide (1 government) 4 regional (3 government) 2 small foreign	5 nationwide (1 government, 3 foreign)
	Savings banks	7 nationwide (1 government) 5 regional (3 government) 120 building societies	5 nationwide (1 government) 12 regional 1 Postal savings (government) 44 building societies
	Credit unions	700 credit cooperatives	950 credit cooperatives
B)	**Specialized Lending Institutions**	4 development banks (3 government) 1 export refinance 50 merchant banks 33 finance companies	1 housing (government) 1 rural (government) merchant banks (no data) 436 finance companies 20 rural agencies solicitor's nominee cos. (no data)
C)	**Others**	9 security dealers 46 life insurance cos. 200 general insurance pension funds (no data)	4 security dealers 31 life insurance general insurance (no data) 213 pension funds

Sources: *Australian Financial System: Interim Report of the Committee of Inquiry* (Canberra: Australian Government Publishing Service, 1980; hereafter, 'Interim Report'), pp. 110-178. R.S. Deane and P.W.E. Nicholl, editors, *Monetary Policy and the New Zealand Financial System*, (Wellington: Reserve Bank of New Zealand, 1979) pp. 29-116.

sumer-price inflation. In 1970, for example, the maximum allowable loan rate was 8¼ percent, inflation ran at 3.2 percent, and banks charged a weighted average loan rate of 7.60 percent.[4] The Reserve Bank in concert with state regulatory agencies ensured that the loan rates of the building societies and the credit cooperatives under the state agencies' jurisdiction conformed to those of the trading banks.[5] Similarly, banks in New Zealand were also subject to interest-rate ceilings, but the limits there were apparently more restrictive. For instance, in 1973, the maximum lending rate in New Zealand was 5.84 percent while the consumer-price inflation rate was 8 percent.[6]

On the deposit-rate side, banks in Australia and New Zealand were constrained to pay no interest on demand deposits. On passbook savings deposits, they could pay only 3.75 percent in Australia and 3 percent in New Zealand.[7]

On time deposits, both countries permitted banks to pay higher interest rates to large deposits than to small deposits. Since 1973, banks in Australia have been free to set the rates they pay on large certificates of deposits,[8] but on other time deposits an interest-rate ceiling of 6.5 percent applied in 1973. In New Zealand, both large and small time deposits were subject to rate ceilings, although the rate was higher (e.g. 7.25 percent in 1972) for deposits of more than $25,000 than for smaller deposits (6 percent in 1972).[9]

The reason for allowing this discrepancy in interest rates for deposits of different sizes was to enable banks to compete for funds in the open market, where the large investors were presumably more sensitive to interest-rate differentials. The two-tier interest-rate system appears to have been a compromise measure to keep deposit-rate controls while minimizing the risk of disintermediation. These objectives, however, were achieved at the expense of small depositors.

Besides interest-rate ceilings on bank loans and deposits, the monetary authorities in both countries also set interest rates on government securities. Typically, the rates were below competitive-market rates. For instance, throughout the 1970s, the real returns (i.e., after deducting the rate of inflation) on three-month Treasury bills were consistently negative in New Zealand and were positive in Australia only in 1970 and 1971 (Table 2). The governments were able to sell the securities only by requiring financial institutions to hold the securities in their portfolios in some proportion to their deposits or assets.

Divergent Policies

Although Australia and New Zealand started out with similar interest-rate policies in the early 1970s, the way they implemented those policies diverged significantly afterwards. Broadly speaking, the Reserve Bank of Australia appears to have been more sensitive to the limitations of interest rate controls and consequently showed greater flexibility in raising the interest rate ceilings as the inflation rate rose. For instance, as the inflation rate increased from 3 percent in mid-1970 to nearly 17 percent in mid-1975, the maximum deposit rate was raised from 5.5 percent to 10 percent (Table 2).

Moreover, the Australian authorities confined the interest rate controls to the banking sector and left the nonbank financial institutions largely unregulated. Major trading banks in Australia had extensive equity interest in the unregulated nonbank financial institutions. For instance, they accounted for 50 percent of the total assets of the finance companies in Australia.[10] Hence, competition from the unregulated financial market presented less of a threat than it would have been were the trading banks not heavily represented in the unregulated market as well.

In contrast, the authorities in New Zealand were much less flexible in administering their interest rate policy. Inflation was already accelerating as the decade opened, reaching a double-digit level in 1971 (Table 2). In 1972, the authorities responded by promulgating comprehensive interest rate controls over *all* financial institutions, including building societies, finance companies, merchant banks and insurance companies. At the same time, they reimposed a ceiling on banks' large-deposit rate. Moreover, as inflation accelerated to 11 percent in 1974, the authorities lowered the small-deposit rate from 6 percent to 4.25 percent and the large-deposit rate from 7.25 percent to 6.75 percent instead of raising the interest rate ceilings. Apparently the action was an attempt to lower inflationary pressures by reducing the cost of credit.[11]

As might be expected, setting interest rates below competitive-market rates, and even below inflation rates, brought out strong incentives for the market to find channels other than regulated financial institutions for placing funds. How investors bypassed the regulated channels can be illustrated by the following four cases: (1) the rise and fall of the commercial-bill market in New Zealand, (2) the boom in a "curb market" for mortgage financing in New Zealand, (3) funds raised in the government securities market in Australia and New Zealand, and (4) relative growth of the regulated and unregulated financial sectors in Australia.

Case I: The Commercial-Bill Market

From relative insignificance in the early 1970s, the commercial-bill market in New Zealand grew rapidly from 1972 on as all financial institutions came under interest rate control. At the end of 1973, total commercial bills outstanding were $113 million. Unregulated, the 90-day bills paid 10 percent at mid-1974 and rose to 15 percent by October at a time when the controlled Treasury bill rate was paying only 2 percent and large time deposits only 6.75 percent (Table 2). In response to such strong incentives, the commercial-bill market grew by 66 percent during 1974.[12]

Table 2
Selected Interest Rates

(A) Australia

	TRADING BANKS		FINANCE COS.			CPI
MID-YEAR	1-YEAR DEPOSITS	CDS	2-YEAR NOTES	TREASURY BILLS	COMM. BILLS	INFLATION RATE
1970	5.0	5.5	8.0	5.4	8.7	3.2
71	5.0	5.5	8.0	5.4	8.1	4.8
72	4.5	6.5	7.0	4.5	5.7	6.8
73	4.5	6.5	6.7	4.9	6.4	6.0
74	7.5	17.3	12.0	10.7	18.8	12.9
75	9.5	9.3	12.0	7.8	8.8	16.7
76	8.7	10.1	11.5	7.0	10.4	13.0
77	9.0	10.5	11.5	8.6	11.1	13.8
78	9.0	10.2	10.5	8.3	10.8	9.5
79	8.5	9.8	10.5	9.0	10.3	8.2
80	10.0	13.2	11.5	10.8	13.8	10.1
81	12.3	15.0	14.3	13.3	16.0	9.4

(B) New Zealand

	Small Deposits	Large Deposits				
1970	4.0	4.8	7.5	3.9	na	6.5
71	4.2	6.2	8.5	4.2	na	10.5
72	6.0	7.2	7.2	4.0	na	7.0
73	6.0	7.2	7.2	2.0	na	8.1
74	4.2	6.7	10.0	2.0	10.0	11.1
75	5.5	6.7	12.0	2.0	8.7	14.7
76	6.5	9.5	11.5	4.0	7.5	16.9
77	6.5	12.5	13.7	7.0	14.2	14.4
78	8.8	11.5	13.7	7.5	11.0	12.0
79	10.5	13.3	15.5	10.6	15.5	13.6
80	12.5	14.0	16.5	11.2	13.5	17.2
81	13.5	14.5	16.5	11.2	15.0	15.4

Sources: *Australia*. 'Interim Report,' pp. 219 and 221. Reserve Bank of Australia, *Bulletin, September 1982, p. 196*.
New Zealand. R.S. "Interest rate policy: a New Zealand quandry," Reserve Bank of New Zealand, Research Paper No. 17, March 1975, pp. 20–21. R.S. Deane, "Lessons from the New Zealand financial system," Reserve Bank of New Zealand, Discussion Paper D79/5, July 1979. p. 13.
New Zealand Department of Statistics, *Monthly Abstract of Statistics*, August 1982, p. 77.
Reserve Bank of New Zealand, *Bulletin*, September 1982, p. 401.

In November of 1974, the Reserve Bank instituted a series of regular meetings with the major dealers in the market to request that (1) bills in denominations smaller than $20,000 not be issued to compete with the regulated institutions for small deposits; and that (2) their activities not be expanded beyond then-existing levels of accommodation.[13] The outcome was that the bill rate declined after October 1974 to 8.7 percent in mid-1975 and 7.5 percent in mid-1976, in the face of rising inflation rates. The effect on the market was a predictable slowing of growth. From the 66-percent rate in 1974, the amount of bills outstanding grew only 7 percent in each of 1975 and 1976. The nominal slowdown actually meant shrinkage in real terms. Thus, through official intervention, the growth of the commercial bills market in New Zealand was nipped in the bud.

Case II: "Curb Market" for Mortgage Financing

The saga of the so-called "solicitors' nominee companies" in New Zealand had a different ending, because the authorities were either unable or unwilling to suppress their undertakings.[14] These companies arose in 1969 as lawyers (solicitors) handling real-estate transactions expanded their normal escrow business by accepting funds from clients, or "potential clients," nominally with a view toward eventually purchasing houses. Such funds were deposited in the "nominee companies," which were managed by the lawyers for a fee. The funds were withdrawable on demand.

Information on deposit interest rates is not available, but mortgage loan rates charged by these companies in 1978 were between 12 and 15 percent. After deducting the management fees and charges for reserves, there should still be an attractive return to the depositors at a time when the inflation rate was about 12 percent and banks were paying 8.8 percent for small deposits and 11.5 percent for large deposits.

Typically, mortgages from these pools had a term of only one to three years and did not exceed two-thirds of the value of the property. Thus, borrowers must provide a sizable equity and seek rollover of their mortgages, or refinancing elsewhere, upon the mortgages' expiration. Yet, even under such unfavorable terms, solicitors' nominee companies grew rapidly. In 1977, these companies extended more than $213 million in mortgage loans and accounted for more than 11 percent of total mortgage finance in New Zealand.[15]

Case III: Government Securities Markets

As stated earlier, during the 1970s interest rates on government securities in Australia and New Zealand were set below competitive-market rates by the monetary authorities. Their sales were assisted primarily by the requirement that regulated financial institutions hold them in their portfolios in proportion to their total deposits or assets. This "captive" market consisted of trading banks, savings banks, authorized money-market dealers, and life insurance companies in Australia,[16] and, since 1973, all

Table 3
Domestic Funds Raised in the Government Securities Market
(Percent Share of Total)

	Australia (1972–79)	New Zealand (1970–79)	United States (1970–79)
Reserve Bank	30	7	40
Government Agencies	7	10	−4
Financial Institutions			
"Captive"	35	80	0
Others	10	0	17
Others	18	3	47
	100	100	100

Sources: Reserve Bank of Australia, *Bulletin*, September 1982, p. 133; Reserve Bank of New Zealand, *Bulletin*, various issues; Board of Governors of the Federal Reserve System, *Annual Statistical Digest*, 1970–79, p. 221.

financial institutions in New Zealand.

How these regulations affected the government securities markets in the two nations is evident in a comparison of the net amounts of domestic funds raised in the two markets with those raised in the United States (Table 3). During the 1970s, New Zealand relied on government agencies (other than the central bank) and financial institutions to finance 90 percent of government debt, while the corresponding ratios for Australia and the United States were 52 percent and 13 percent respectively. The "captive" market's share was 80 percent in New Zealand, 35 percent in Australia, and zero in the United States. Voluntary private financing of government debt was only 3 percent in New Zealand and 28 percent in Australia, but it reached 64 percent in the United States. Apparently, the relative interest-rate flexibility in Australia and New Zealand (Table 2) had much to do with the relative size of the non-captive private market for government securities in those two countries.

Case IV: Regulated and Unregulated Markets

How interest-rate controls affected the relative growth of the regulated and unregulated markets can be seen in the data on their shares of the total assets of all financial institutions. The share of the regulated trading banks and savings banks in Australia declined from 52 percent in 1953 to 39 percent in 1978, while that of the largely unregulated finance companies rose from 2 percent to 14 percent and that of the building societies from 1 percent to 7 percent.[17]

Comparable data are not available for New Zealand. However, for the mortgage finance market, the share of the regulated financial institutions—including trading banks, savings banks, building societies, and insurance companies—declined from 29 percent in 1970 to 19 percent in 1976, while that of the unregulated financial sources rose from 16 percent to 19 percent. Direct financing by the government and households accounted for the balance.[18]

Thus, it appears that interest-rate controls in Australia and New Zealand resulted in the diversion of flow of funds from the regulated financial institutions to the unregulated. To the extent that both investors and borrowers would have preferred obtaining financial services from banks and other well-established financial institutions because of their greater efficiency and expertise, the financial disintermediation meant market distortion and a loss of economic welfare for the national economy as a whole.

III. Asset and Liability Restrictions

Besides controls over interest rates, the authorities in Australia and New Zealand also exercise extensive controls over the assets and liabilities of financial institutions. The most important of the controls has been the use of "liquid-asset ratios" as a policy instrument. These ratios require financial institutions to hold a part of their assets in specified liquid forms in proportion to their total deposits, borrowings or assets. In both countries, the requirement for banks differs significantly from the requirement for non-bank financial institutions.

Liquid Asset Ratios: Banks

The liquid-asset requirements for banks in Australia and New Zealand are similar to the banking reserve requirements in the United States in that the requirements are also a principal instrument for the conduct of monetary policy. However, the mode of its use differs significantly among the three countries.

Since 1973, banks in New Zealand have been required to maintain on average over a calendar month reserve assets not less than certain percentages of their average demand and time deposits in the preceding month. The eligible assets include vault cash, deposits at the Reserve Bank, and holdings of Treasury bills and government bonds.[19] The ratios varied frequently and widely. In 1977, for instance, the reserve ratio for demand deposits varied between 13 percent and 37 percent, while that of time deposits was relatively stable, varying between 10 and 15 percent.[20]

In contrast to New Zealand's separate reserve requirements for demand and time deposits, trading banks in Australia are subject to a two-tranche liquid-asset requirement against total deposits: (1) a *primary* reserve of minimum "statutory reserve deposits" (SRD) at the Reserve Bank, and (2) a *secondary* reserve of minimum "liquid assets and government securities" (LGS), consisting of vault cash, Treasury bills and notes, and other Commonwealth Government securities. Presumably both reserve ratios can be used as instruments of monetary policy. In practice, only the SRD ratio has been used as such. This is evidenced by the fact that the SRD ratio has been adjusted frequently, varying from 3 percent to 16.5 percent since 1960, whereas the LDS has been held virtually unchanged at 18 percent through the years.[21]

It is interesting to contrast the use of a reserve requirement as a monetary-policy instrument in Australia, New Zealand and the United States. First, the frequent adjustment of reserve requirements in Australia and New Zealand differs from their virtual constancy over the years in the United States. While reserve requirements in the United States are used as a *supplement* to open-market operations, they are used in Australia and New Zealand as a *primary* policy instrument for controlling monetary growth. The difference reflects the lack of a well-developed money market in Australia and New Zealand and the consequent inability of their central banks to conduct open-market operations for adjusting the level of bank reserves.

Second, the composition of eligible reserve assets differs among the three countries. In Australia, the SRD ratio includes only trading banks' deposits at the Reserve Bank. The United States adds banks' cash in hand and New Zealand also includes government securities. The differences among the three help to bring out an important attribute of bank reserve requirements, an attribute with significant policy implications.

A reserve asset should yield significantly less than any other asset in the open market or banks will not voluntarily minimize their reserve holdings. And reserves in excess of banks' liquidity needs would weaken the effectiveness of monetary control. In the United States, both banks' vault cash and deposits at Reserve Banks yield no return. In Australia, bank deposits at the Reserve Bank have yielded 2.5 percent per year since 1976,[22] compared to more than 8 percent on Treasury bills. In New Zealand, the yields on government securities were so far below the market yields (Table 2) that their inclusion in reserve assets presented no problem prior to 1978. In 1978, however, the Treasury bill rate was raised to more than 10 percent, making it competitive with private market securities (Table 2). Banks could then adjust their reserves by buying or selling securities in the open market without severe capital losses as the Reserve Bank raised or lowered reserve requirements. Thus, adjusting bank reserve requirements could affect interest rates through the government-securities market, but it could not affect the level of total reserves.[23]

Australia's payment of interest on bank reserves and New Zealand's inclusion of government securities in reserve assets illustrate a basic dilemma shared by all monetary authorities. Monetary policy must satisfy both the desire for money control and the desire for competitive equity and efficiency. For effective monetary control, reserve assets must yield below-market returns but for competitive equity and efficiency, below-market returns penalize banks and tend to lead to financial disintermediation. Australia's payment of interest on bank reserves comes close to offering a solution to this dilemma, except that the rigidly-fixed, low interest rate the Reserve Bank pays mitigates only in part the financial-disintermediation problem.[24]

Liquid-Asset Ratios: Nonbanks

The Australian and New Zealand regulations for non-bank financial institutions are similar in that they both require these institutions to hold minimum cash deposits at the Reserve Bank or trading banks, and to hold government securities in proportion to total deposits (or borrowings or assets, as the case may be). The two countries' regulations differ to the extent that the Australian requirement extends only to savings banks, while New Zealand's requirement covers all nonbank financial institutions.

Until recently, savings banks in Australia were subject to the so-called "40/60 rule," which should be more accurately called the "7½/32½/60 rule."

Under this rule, savings banks must hold three categories of assets in proportion to their total deposits: (1) 7.5 percent in deposits at the Reserve Bank and in Treasury bills; (2) 32.5 percent in cash, deposits with other banks, other Commonwealth Government securities and money-market placements; and (3) 60 percent in housing mortgages.[25] The first tranche might be interpreted as serving a mixture of monetary-policy and prudential-regulatory purposes; the second for prudential regulation and for preserving a captive market for government securities; and the third for ensuring the availability of credit for financing housing.

That the first tranche requirement can serve monetary policy purposes is doubtful. As a rule, savings banks in Australia do not offer checking deposits that trading banks do.[26] In reality, the Australian authorities have not used the tranche for this purpose, as evidenced by the fact that the ratio remained unchanged year after year. The case for its use as protection for depositors is somewhat stronger, especially since Australia does not provide deposit insurance. However, with ready access to the major trading banks, which, after all, own the major savings banks, it is not clear that the liquid-asset requirement is essential for depositor protection.[27] As for assuring the availability of credit to the Government and the housing sector, little needs to be said, except that it reflects social priorities but distorts credit allocation.

New Zealand's liquid-asset requirements of nonbank financial institutions are essentially similar to those in Australia, as are the reasons behind them.[28] New Zealand's savings banks are subject to a cash-reserve requirement as well as a government securities ratio requirement. Both requirements are stated as ratios to total deposits.

New Zealand's government-securities requirement is notable for its application to all nonbank financial institutions, although the ratios vary widely among them. For instance, in 1976 the requirement was 47 percent for all deposits at private savings banks, 72 percent for time deposits at private savings banks, 15 percent of total borrowings for finance companies, 32 percent of "residual assets" for private pension funds, and only 5 percent of assets or savings deposits for building societies.[30] Given the wide disparities, it is hard to see how competitive equity could be maintained among the various types of financial institutions.

IV. Direct Credit Controls

The authorities in Australia and New Zealand have also relied heavily on direct credit controls. Among these, one may distinguish between "general credit control" and "selective credit control."

General Credit Control

General credit controls are often used to supplement monetary policy when interest rates are set below market equilibrium rates. Since by definition the condition implies excess demand for credit, there exist strong incentives for the regulated institutions to raise the effective loan rates while keeping the nominal rates under the prescribed ceilings. They can do so in a number of ways that include charging loan fees and requiring compensatory balances or prepayment of interest. The favored borrowers fortunate enough to be granted the much-sought-after credits are only too glad to comply.

To preempt this kind of evasion, general credit control is often used by the authorities as a supplementary instrument prescribing either the level or the growth rate of outstanding loans each lending institution is allowed to maintain. It is a method often used in countries where the monetary authorities desire to target simultaneously both interest rates and the monetary aggregates, or to have cheap credits without inflationary pressures.

A few instances illustrate how the policy has been applied in Australia and New Zealand. In Australia, authorities asked major trading banks in September of 1979, 1980 and 1981, to hold the growth of advances outstanding to no more than a 10 or 12 percent annual rate. The 1979 directive was even more specific: it required each bank not to exceed a limit on net new lending commitments of an average $30 million per week.[31]

In New Zealand, for decades trading banks were

given specific targets for total advances.[32] In August 1978, the Minister of Finance announced a private-sector credit-growth guideline, whereby financial institutions were advised that the overall level of loans outstanding in the months ahead should not exceed the previous year's level by more than 10 to 15 percent. In April 1979, the allowable growth rate was reduced to 8–12 percent for the year ending March 1980.[33]

General credit control was abandoned by Australia and New Zealand after interest-rate control was removed in both countries. The reasons for its abandonment were clearly stated in Reserve Bank of Australia's announcement of the decision in June 1982:

> "The move away from quantitative restraint on bank lending is made against the background of the rapid changes that have taken place in recent years in the pattern of financial intermediation.... Much of the finance unavailable through bank lending was being made available otherwise, through channels and in forms which were by definition not the first preference of market participants."[34]

Moreover, it appears that even before their abolition the guidelines were in fact more often breached than honored. The 1979 and 1980 guidelines both called for not more than 10 percent growth in bank advances, but the actual advances during the years ended in May grew by 17 percent in 1979/80 and 13 percent in 1980/81.[35] In New Zealand, the policy was abandoned in March 1980 by simply letting the April 1979 guideline expire without a replacement.[36]

Selective Credit Control

Selective credit control was used in Australia until recently.[37] It is still in use in New Zealand. Periodically, the Reserve Bank of New Zealand conveys by letter to trading banks guidelines for lending priorities to ensure that the "priority" sectors have access to an adequate supply of finance.

As explained by the Reserve Bank:

> "Agricultural and manufactured exports have always had top priority because of the country's tendency towards balance of payments deficits. Finance for housing purposes, because of its social importance, has also frequently been among the top priority sectors. Lending to the private sector for purposes other than housing, the so-called service sector, financial institutions and for the imports has usually had low priority."[38]

The Bank also reports that similarly specific directives have been issued to nonbank financial institutions such as finance companies, insurance companies and private pension funds regarding the direction of their investments.

The Reserve Bank itself recognizes the problems created by direct credit controls.

> "A wide range of direct controls would increase the difficulties of administration, raise problems of equity, hamper the competitiveness of the financial system and be inconsistent with the recent trend in monetary policy towards more generalized tools of control and a more flexible and competitive financial system."[39]

Yet, the Bank has not found it possible to eliminate the credit-control measures given the nation's political environment.

V. Reform and Counter-Reform

In the preceding sections, we pointed out that during most of the 1970s the monetary authorities in Australia and New Zealand used various regulatory control measures for attaining policy objectives. On the whole, Australia was more flexible in using the controls, creating less strain in the financial system, than New Zealand. In this section, we will review the financial reform in both countries.

Reform in New Zealand, 1976–1980

In New Zealand, the various regulatory controls were used largely to combat inflation, but the results were disappointing. Inflation rose from 7 percent in 1972 to 17 percent in 1976. The output growth rate fell. The soundness of the financial system was threatened by increasing financial disintermediation. Controls to assure low-cost financing to such priority sectors as the Government and housing only resulted in retarding the growth of a government-securities market and drove mortgage financing into high-cost, high-risk, unregulated channels. When, in March 1976, it became appar-

ent that the policy approach had not worked as intended, the authorities instituted sweeping changes.

First, interest-rate deregulation began. Ceilings on trading banks' lending rates and deposit rates on large (more than $12,000) long-term (longer than three years) deposits were abolished. Smaller or shorter-term deposits rates and government-securities rates were adjusted upward. Most significantly, all interest-rate controls over the non-bank financial institutions were lifted.

As to be expected, the partial deregulation left the banks, especially the savings banks, unable to compete for funds with all the other newly deregulated financial institutions. In July 1977, all controls over both the trading banks' and the savings banks' time-deposit rates were removed. The only remaining interest-rate restrictions were a prohibition of interest payments on demand deposits and on deposits of less than 30 days, and a ceiling of 3 percent on passbook savings at savings banks (no such deposits being permitted at trading banks).

As the authorities freed interest rates in the private sector, the Government found itself increasingly pressured by competition for funds in the market. A deliberate two-part policy to develop a government-security market began in August 1978. First, the interest rates on government securities were raised. This was supplemented by a new Government savings bond, introduced in October 1978, that had a five-year maturity and yielded 11 percent. Second, the Government sought to promote the development of a secondary market by designating a number of "specialized dealers in government securities" and giving them direct recourse to the Reserve Bank for conducting government securities transactions.

The development of the government-securities market in New Zealand meant that for the first time the monetary authorities could control the money supply by increasing or reducing bank reserves through the open market. During the fiscal year ended March 1978, for example, the Government sold a net amount of $1,055 million securities, of which the captive trading banks purchased $720 million, or 68 percent of the total. In contrast, during fiscal year 1979, when government securities became market-competitive, the Government sold $904 million securities, of which the trading banks took in only $101 million, or 11 percent of the total. Thus, it appears that the market had been opened to a wider public than before.[40]

In addition to interest-rate decontrol, considerable progress was made during 1976–80 in the deregulation of financial institutions' portfolios. For instance, in December 1976 the restriction on trading banks' lending to other financial institutions was removed. This action subsequently opened the way to an inter-bank call-money market. In October 1977, trading banks were allowed to issue negotiable certificates of deposit and to invest in local-authority securities. In April 1978, they were freed to operate in the commercial-bills market. In February 1978, savings banks were permitted to extend consumer loans up to 2 percent of their total deposits; the limit was completely removed in April 1980.

By mid-1980, New Zealand's financial system was largely deregulated. Its savings banks in particular could make even more consumer and business loans than their U.S. counterparts, but some restrictions remained. Savings banks were still subjected to interest rate ceilings on passbook savings deposits. Building societies were still limited almost entirely to housing mortgages. All the non-bank financial institutions were still subject to the government-security ratio requirements.[41]

Reform in Australia, 1979–82

Only for a few years did the breathtaking pace with which New Zealand deregulated its financial system leave Australia behind. As stated earlier, Australia had avoided much of the stress sustained by the financial system in New Zealand by being more successful in bringing inflation under control and more flexible in the use of controls. Nevertheless, Australia also experienced disintermediation, as well as stunted growth in the government-securities market.

In April 1979 the Australian authorities began to relax interest-rate controls. The Australian Loan Council announced that it would introduce a tender system for issuing Treasury bills and a tap system for selling Treasury bonds.[42] The former, by opening each issue to public bidding, let the bill rate be determined by the market. The latter, by making the government bonds in Reserve Bank's portfolio continuously available to the public, accommodated better the public's demand for government securi-

ties. Both measures helped strengthen the functioning of the market.[43]

Of perhaps greater practical significance was the step taken by the Australian authorities in December 1980 when, in one sentence buried in a lengthy statement, the Reserve Bank announced: "The ceilings on trading and savings bank deposit interest rates are being removed."[44] Both the savings and the trading banks were freed to compete fully in the open market for funds. The rates moved up quickly. In mid-1981, according to one account:

> "...the rates offered by banks are now more comparable with those of other financial institutions. In particular, savings banks are competing directly with building societies, while trading banks' fixed deposits on shorter maturities now compare favorably with short-term money market rates as well as rates on Treasury notes and Commonwealth bonds of comparable maturities. As a result, there have recently been large increases in the fixed deposits of both savings banks and trading banks, while permanent building societies' deposits have fallen consistently since January."[45]

Although ceilings on deposit rates were removed, the authorities did not see fit to do the same on lending rates. In the same action, in December 1980 the Reserve Bank merely raised the loan-rate ceilings by 2 percentage points from 10.5 percent to 12.5 percent. Nevertheless, this was a generous move in view of the decline of the inflation rate from an annual rate of 10 percent in 1980 to 9.4 percent in 1981 (Table 3). Still, the reluctance to lift the ceilings on lending rates reflected the Reserve Bank's continued adherence to a policy of interest-rate control.[46]

The Campbell Committee Reports

The partial deregulation in 1979–80 in Australia did not go far enough in the eyes of critics. In 1979, even before the reform began, the Government initiated a comprehensive review of Australia's financial system under the chairmanship of J. Keith Campbell. The Campbell Committee heard testimonies from experts and commissioned studies on various technical topics. In May 1980 it submitted an Interim Report and in December 1981 a Final Report.[47]

On conduct of monetary policy, the Committee recommended targeting monetary policy in terms of money-growth rates, specifically the M3 growth rate. As instruments, the Committee favored open-market operations and variable reserve requirements for banks only. Nonbank financial institutions (NBFIs), the Committee believed, should be exempt from reserve requirements because of "complex administrative problems" and doubtful effectiveness. Competitive equity between banks and NBFIs could subsequently be resolved by paying market interest on the reserves. The Committee recommended doing away with most of the policy instruments discussed in this paper—interest rate controls, general and selective credit controls, and government-security ratios over and above reserve requirements as a means of credit restraint.

On the government securities market, the Committee endorsed the tender system for marketing government securities other than savings bonds. It recommended that the terms and conditions of government borrowings, including those of the local government and semi-public agencies, be freed from the Loan Council's control. Moreover, it stated that all financial institutions should be freed from requirements aimed at supporting the government securities market.

The Committee also recommended that limitations on both domestic and foreign entries into banking and other fields of financial activities be removed to promote competition in financial markets.

In the area of prudential regulations for "investor protection," the Committee recommended abandoning the existing legalistic approach of separately regulating the different types of financial institutions. It endorsed a restructuring of the regulatory framework by the primary functions financial institutions perform: for example, payments clearing, nonbank deposit-taking from households, borrowing from households through issuing debentures, accepting large deposits primarily from business firms and securities transactions. In each category, the Committee advocated a national framework for prudential regulation, the use of "liquidity ratios" in addition to the capital ratios, and enhanced supervision by the regulatory authorities.[48]

If history is any guide, a comprehensive, rational reform of a nation's financial system is likely to encounter the combined resistance of many vested interests at the same time. Over the past two dec-

ades there have been several comprehensive reviews of the financial system in the United States. The Commission on Money and Credit study (1961), the Hunt Commission Report (1971), and the Financial Institutions and National Economy study (1975) have all recommended complete restructuring of the financial system. All significantly contributed to greater understanding of the system's weaknesses and the need for reform. Yet it was not until market forces under the pressures of inflation produced so many changes that were seriously damaging to the regulated financial institutions that the demands for reform became irresistible. Even then, a consensus could not be reached. The Depository Institutions Deregulation Act of 1980 settled for partial reforms.[49] And the Congress, two and a half years later, had to pass the Depository Institutions Act of 1982 to improve banks' and savings institutions' ability to compete against the money-market funds.

To what extent Australia will accept the Campbell Committee's recommendations is hard to foretell. The U.S. experience suggests that deregulation tends to pick up momentum once begun—unless stopped by strong political opposition.

Counter-Reform in New Zealand, November 1981

As if to underscore the last point, in November 1981 New Zealand's government reversed the course of the financial reform that had taken place during the preceding five and a half years by reimposing interest rate controls. In the words of Prime Minister R. D. Muldoon, the action was made necessary "by the practice of financial institutions disregarding repeated warnings to hold interest rates down."[50] The next month the Reserve Bank fixed the lending-rate ceiling at its level on November 25, 1981. Any increases above that level must thereafter obtain the prior approval of the Reserve Bank. This regulation was interpreted to cover not only all financial institutions but also any supplier of credit or purchaser of a financial assets, including trading companies and discounters of commerical bills, that employed more than $2 million of funds.

The reimposition of interest-rate control was preceded by a year of rising inflation caused by a rapid rise in the M2-growth rate. From an average annual rate of 15 percent in 1975–77, the M2-growth rate rose to 22 percent in 1978-79. With a lag the consumer-price inflation rate also rose, from 12 percent in 1978 to 17 percent in 1980 and 15 percent in 1981.[51]

The November 1981 measures had a familiar ring. As described earlier, under the pressures of rising inflation in 1972 the New Zealand Government also imposed general interest-rate controls with the express purpose of fighting inflation by reducing the cost of credit. How the policy had failed to achieve its purpose, brought on increasing distortions in the financial system, and then culminated in the financial reform of 1976, is now a familiar story. Nearly ten years later, a full circle is completed, except that this time, the public has acquired the experiences and expertise in circumventing controls. The market should react more quickly to the controls this time, making them even harder to manage than before.

VI. Conclusions

The conclusions of this paper may be summarized as follows:

1. In many nations monetary policy and regulatory policy are closely interrelated. In Australia and New Zealand, prior to financial reform, anti-inflation monetary policy was conducted to a large extent through regulatory controls that had significant impact on the competitive structure and efficiency of financial markets. Interest rate controls, for example, resulted in disintermediation and retardation of the growth of financial markets, without attaining their intended objectives. Disintermediation meant increased market distortions. And the stunted growth of financial markets deprived the monetary authorities of the use of open-market operations as a policy instrument for adjusting bank reserves, thus further compelling the authorities to rely on administrative control measures.

2. Unable to conduct open-market operations, the monetary authorities relied on frequent changes of reserve requirements for adjusting the level of bank reserves. Since for this policy to be effective the reserve assets must yield below-market returns, the policy imposed a burden on banks and other regulated financial institutions and gave rise to further financial disintermediation. In Australia, par-

tial relief comes from interest payments on bank reserves. In New Zealand, banks are allowed to hold government securities as eligible reserve assets. However, New Zealand may have lost some monetary control when government securities began to yield competitive market returns.

3. Both Australia and New Zealand require financial institutions to hold minimum liquid deposits. The requirement has served little monetary policy purpose. It might be justified as a prudential regulation for depositor protection in the absence of deposit insurance; however, given the lack of an active government-securities market, its usefulness for depositor protection is rather dubious. It is primarily a device for ensuring a captive market for government securities to help lower the cost of government debt financing. As such, it is equivalent to another hidden tax on financial institutions and provides further impetus for financial disintermediation.

4. To supplement general monetary policy, the authorities in the two countries also applied direct credit controls as a means for restraining credit growth and for ensuring credit availability for priority sectors. The approach again reflects the substitution of administrative measures for the market mechanism. It thwarts the proper functioning of financial markets without accomplishing the intended purposes.

5. Because all of these monetary control measures were applied with greater rigor and less flexibility in New Zealand than in Australia, problems of disintermediation and other distortions manifested themselves sooner and to a greater extent in New Zealand. As a result, more thorough financial reform also began sooner in New Zealand than in Australia.

By 1980 deregulation had made long strides in both nations. Australia continues to explore further avenues of financial reform, but New Zealand has recently reversed its course. It has re-imposed interest rate controls and brought its financial system full-circle back to its state nearly a decade ago. The action demonstrates that the course of financial reforms is, in the short run, determined more by political will than by market forces.

FOOTNOTES

1. For discussion of the conduct of monetary policy in the two nations see *Australian Financial System: Interim Report of the Committee of Inquiry* (Canberra: Australian Government Printing Service, 1980; hereafter 'Interim Report') Chapters 11-12, pp. 244–259. R.S. Deane and P.W.E. Nicholl, editors, *Monetary Policy and the New Zealand Financial System* (Wellington: Reserve Bank of New Zealand, 1979; hereafter 'NZ Monetary Policy') Chapter 15, pp. 229–243.

2. 'Interim Report,' p. 111; and 'NZ Monetary Policy,' p. 30.

3. The two foreign banks in Australia (Bank of New Zealand and Banque Nationale de Paris) are both of negligible size. The three foreign trading banks in New Zealand are the largest among the five trading banks in the country, but all three are Australian banks that had been operating in New Zealand long before the establishment of the Reserve Bank of New Zealand in 1934. They are Australia and New Zealand Bank Limited (formed by a merger in 1977 of two Australian banks that commenced operation in 1840 and 1864), Bank of New South Wales (commenced business in NZ in 1840), Commercial Bank of Australia Ltd. (commenced business in NZ in 1861). 'NZ Monetary policy,' p. 31.

4. 'Interim Report,' Table 9.1, p. 219.

5. 'Interim Report,' pp. 249–253.

6. R.S. Deans, "Interest Rate Policy: A New Zealand Quandry," Reserve Bank of New Zealand, Research Paper No. 17, March 1975, p. 20, n.5. Direct comparison of the policy's restrictiveness between the two countries needs to be qualified by the fact that different dates are used in the comparison. Comparable data are not available to the author.

7. In 1973, demand deposits accounted for 58 percent of total trading bank deposits in New Zealand, and savings deposits 74 percent of total savings bank deposits, while the corresponding ratios for Australia were 53 percent and 82 percent respectively. Reserve Bank of Australia, *Bulletin: Financial Supplement*, March 1981, p. 15. Reserve Bank of New Zealand, *Bulletin*, March 1974, pp. 51 and 58.

8. Promptly after the Reserve Bank freed banks' certificates of deposits (CDs) from the rate ceiling in September 1973, the CD rate was bid up to more than 17 percent by mid-1974 from the controlled rate of only 6.5 percent a year ago. The rate compared favorably with the 13 percent inflation rate and the 12 percent rate paid by finance companies (Table 2). Investors responded with vigor. CD deposits expanded rapidly and by mid-1974 accounted for 20 percent of major trading banks' total deposits, compared to only 4 percent a year ago. See Reserve Bank of Australia, *Bulletin: Financial Supplement*, March 1981, pp. 30–31. However, the boom in the CD market was short-lived. The next year the CD rate dropped sharply and remained low until 1980, in spite of the continued high inflation rates; correspondingly, CD's share in total banking deposits dropped to 6 percent in mid-1975 and to only 1 percent by mid-1979. The decline of the CD rate is a puzzle.

9. On surface, New Zealand's discriminatory treatment of small, short-term deposits appears to differ from Australia's uniform rate ceiling on all time deposits (except the CDs).

However, the difference was only in form, not in substance. For, although subject to only a uniform rate ceiling, banks in Australia in practice applied rate discrimination according to both size and maturity. For instance, in June 1977, when the maximum deposit rate was 10 percent, banks in Australia paid the top rate only on deposits of more than $50,000; for smaller amounts the deposit rate varied between 7.75 percent to 9.5 percent for maturities ranging from 3 months to four years. See Reserve Bank of Australia, *Bulletin*, June 1981, p. 708. Thus, it appears that in New Zealand, as in the United States, it was the authorities that restrained the banks from paying competitive interest rates on small deposits, whereas in Australia it was the banks themselves that constrained themselves from doing so.

10. 'Interim Report,' pp. 79–80.

11. P.W.E. Nicholl, "Regulation of a financial system: the New Zealand experience, 1976–1980," Reserve Bank of New Zealand, Discussion Paper G80/8, May 1980, p. 3.

12. Data in this paragraph on the commercial bill market are based on Reserve Bank of New Zealand, *Bulletin*, various issues.

13. 'NZ Monetary Policy,' p. 76.

14. Information in this subsection is based primarily on 'NZ Monetary Policy,' pp. 291–292.

15. New Zealand Department of Statistics, *Monthly Abstract of Statistics*, August 1978, p. 68.

16. Though not required to hold government securities, life-insurance companies in Australia are induced to do so by tax incentives.

17. 'Interim Report,' pp. 89–90.

18. Source: same as under note 15. The "unregulated financial sources" include producer enterprises, nonprofit organizations, the rest of the world, and unspecified "other" financial intermediaries.

19. 'NZ Monetary Policy,' p. 245.

20. "NZ Monetary Policy," Table 16.3, p. 255. See also Reserve Bank of New Zealand, *Bulletin*, October 1981, pp. 443–446 and November 1981, pp. 495–502, for a detailed description and analysis of New Zealand's reserve-ratio system as an instrument of monetary policy.

21. Except in 1976, when it was temporarily raised to 23 percent, as a supplementary measure for combating inflation. See 'Interim Report,' p. 246.

22. 'Interim Report,' p. 246.

23. The Reserve Bank of New Zealand recognizes the monetary-control problems raised by the inclusion of government securities among reserve assets, but argues that their exclusion would impair banks' competitive position relative to other financial institutions not subject to reserve requirements. See Reserve Bank of New Zealand, *Bulletin*, November 1981, especially pp. 498–502.

24. In the United States, for instance, the banks have been compensated by mandating zero interest on demand deposits and below-market interest-rate ceilings on savings and time deposits through Regulation Q, which in effect has shifted banks' burden of zero-return reserves to depositors, especially small savers. As deposit rates are deregulated, the non-payment of interest on bank reserves has become an increasingly contentious issue in the U.S. financial system. This is particularly evident in the introduction on January 5, 1983 of the "super-NOW accounts," which allows banks and savings institutions to pay market interest rates on deposits of more than $2,500, but subject the deposits to demand deposit reserve requirements. Banks argue that the change erodes their low-cost deposit base without providing a relief on their reserve burden. An obvious solution would be paying near market interest on reserves, which, however, would increase Federal budget cost.

25. 'Interim Report,' p. 249.

26. All savings banks in Australia may provide interest-bearing checking accounts to non-profit organizations, and state savings banks may provide them for households. However, balances in these accounts are small, 'Interim Report,' p. 129.

27. In the absence of regulations, financial institutions would act on their own to insure their liquidity so as to assure their good standing. See I.G. Sharpe and W.P. Hogan, "Regulation, Investor/Depositor Protection and the Campbell Report" (Processed), June 1982.

28. For details, see 'NZ Monetary Policy,' pp. 257–264.

29. 'NZ Monetary Policy,' pp. 58–59.

30. For government securities ratios for various types of financial institutions, 1960–77, see 'NZ Monetary Policy,' Table 17.1, pp. 258–259.

31. Reserve Bank of Australia, *Bulletin*, June 1982, pp. 755–756.

32. 'NZ Monetary Policy,' p. 32.

33. Reserve Bank of New Zealand, *Bulletin*, July 1981, pp. 289–290.

34. See Footnote 31.

35. *Ibid.*

36. See Footnote 33.

37. 'Interim Report,' p. 247.

38. 'NZ Monetary Policy,' p. 234.

39. *Ibid.*

40. Reserve Bank of New Zealand, *Bulletin*, January/February 1980, pp. 5–6.

41. P.W.E. Nicholl, *op.cit.*, Appendix 2, p. 16.

42. Reserve Bank of Australia, *Bulletin*, September 1980, p. 111.

43. However, although operationally these were major policy changes, their actual impact was relatively small, since even before the changes the regulated interest rates on Australian government securities had not been much out of line with the market (Table 2). The share of the "non-captive " public's holdings—i.e., those of the public outside the trading and savings banks, authorized money-market dealers, and life insurance companies—in the total government securities outstanding rose only marginally from 20.3 percent in mid-1978 to 21.1 percent in mid-1980. Reserve Bank of Australia, *Bulletin*, various issues.

44. Reserve Bank of Australia, *Bulletin*, December 1980, p. 289.

45. Institute of Applied Economic and Social Research, University of Melbourne, *Australian Economic Review*, 2nd Quarter 1981, p. 23.

46. Reserve Bank of Australia, *Bulletin*, September 1982, pp. 196–198. Another important step was taken in August 1982, when the Commonwealth Treasurer announced major changes in savings banks regulations. The "40/60 rules," previously described, was modified to require instead that the savings banks hold a minimum of 15 percent of deposits in reserve assets consisting of cash, deposits with the Reserve Bank, and Commonwealth Government securities. In addition, the savings banks were authorized to invest up to 6 percent of deposits in any assets of their choice. Presumably, the remaining 79 percent of deposits must still be in mortgage finance. Compared to the previous requirement of 60 percent in mortgage finance, this change appears to have mandated a shift of savings banks' funds from government securities towards housing. Since the market-determined government-bond rate was yielding about 15 percent and the maximum lending rate for owner-occupied housing was only 13.5 percent, it does not appear that the savings banks were made much better off by the change in regulation. In this respect, Australia's regulation on savings banks' portfolio choice is much more restrictive than New Zealand's. Reserve Bank of New Zealand, *Bulletin*, January/February 1980. pp. 5–6.

47. *Australian Financial System: Final Report of the Committee* (Canberra: Australian Government Publishing Service, 1981).

48. For a critical assessment of this recommendation, see I.G. Sharpe and W.P. Hogan, *op.cit.*

49. Thomas F. Cargill and Gillian G. Garcia, *Financial Deregulation and Monetary Control: Historical Perspective and Impact of the 1980 Act* (Stanford: Hoover Institution Press, 1982).

50. Reserve Bank of New Zealand, *Bulletin*, December 1981, p. 547.

51. International Monetary Fund, *International Financial Statistics*, various issues.