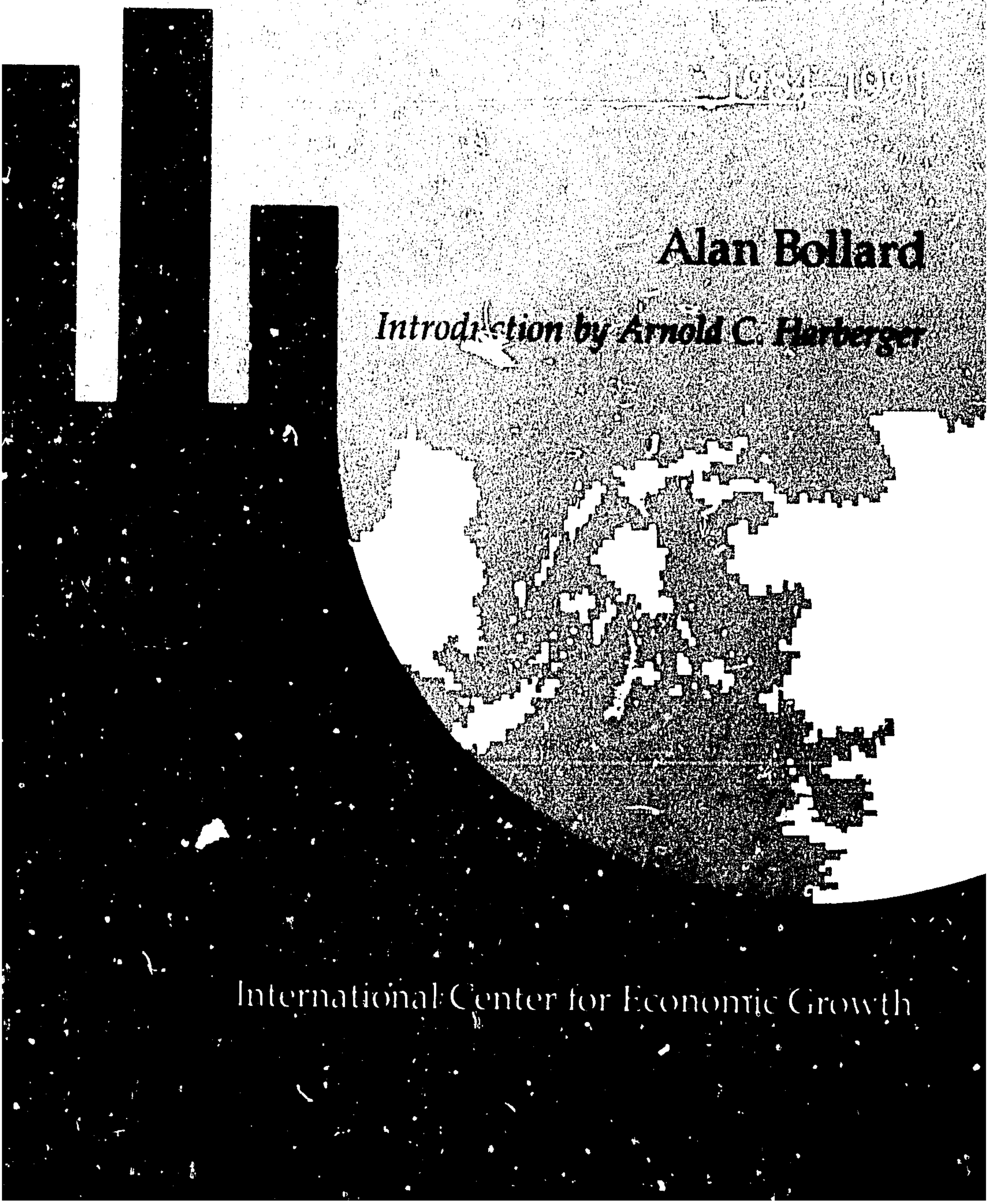
ZEALAND
1984-1991



Alan Bollard

Introduction by Arnold C. Harberger

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New Zealand: Economic Reforms, 1984–1991

Alan Bollard

An International Center for Economic Growth Publication

ICS Press
San Francisco, California

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Library of Congress Cataloging-in-Publication Data

Bollard, Alan.
New Zealand : economic reforms, 1984–1991 / Alan Bollard
p. cm. — (Country studies ; 10)
"An International Center for Economic Growth publication."
Includes bibliographical references.
ISBN 1-55815-214-8 : $5.00
1. New Zealand—Economic policy. 2. New Zealand—Economic conditions—1945- I. Title. II. Series: Country studies (San Francisco, Calif.) ; 10.
HC665.B65 1992
338.993'009'048—dc20 92-8467
CIP

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PREFACE

With the publication of Dr. Alan Bollard's *New Zealand: Economic Reforms, 1984–1991*, the ICEG Country Studies series focuses on radical economic reforms being undertaken in a developed nation—still one of the wealthiest in the world despite its troubled economic history over the past two decades.

When international trade barriers to New Zealand's largely agricultural exports rose sharply in the 1970s, New Zealand's first response was an unsuccessful regime of interventionist economic policies. In the 1980s, a privatization scheme and microeconomic reforms were attempted throughout the economy, along with an anti-inflationary strategy. Fiscal stabilization, however, lagged behind. Bollard describes how business retrenchment in the traded sector, particularly in agriculture and manufacturing, followed the resultant worsening of New Zealand's real exchange rate.

Bollard writes that, by 1991, the still-ongoing reforms successfully stabilized prices, wages, and interest rates and increased efficiency and competitiveness in both the public and private sectors. Fiscal balance and growth in output and employment, on the other hand, were not yet successfully achieved. Bollard also notes that the benefits of the reform process were felt unevenly by various levels and segments of society.

The intensity and longevity of New Zealand's reforms, and Bollard's incisive analysis of their incomplete success, make this monograph essential reading for those concerned with revival of economies marked by a dependence on the international commodity trade and a history of interventionist government policy.

Nicolás Ardito-Barletta
General Director
International Center for Economic Growth

Panama City, Panama
August 1992

ACKNOWLEDGMENTS

This paper is intended to give the reader an overview of the process of economic liberalization that New Zealand underwent between 1984 and 1991. It is by no means definitive, with many reforms receiving only cursory treatment here. The process of reform is an ongoing one, and it is far too early to judge the outcome of the process in any final way. This picture provides a snapshot taken at the end of 1991.

I wish to thank Peter Bushnell, Matsuhiko Ebashi, David Grimmond, Paul McNelis, Stan Vandersyp, and my colleagues at the New Zealand Institute of Economic Research for suggestions and assistance. I also wish to thank Geraldine Sellens for secretarial help. The views expressed here are mine alone, and not necessarily those of associated institutions.

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ARNOLD C. HARBERGER

Introduction

We are living in an era in which economic liberalization has triumphed in just about every corner of the world. But it has not, typically, been a joyous victory. On the contrary, liberalization has nearly everywhere conquered an enemy that had already defeated itself. Liberalization has been asked to pick up the pieces left by the collapse of rival economic policies.

It is not uncommon for the benefits of liberalization (which seeks to stimulate exports through a favorable movement in the real exchange rate) to be short-circuited by other forces pushing the real exchange rate in an unfavorable direction. Think back to the early attempts at liberalization in Latin America: Brazil in 1964, Chile in 1973, Uruguay in 1974, Argentina in 1976. In none of these cases did the new, liberalizing regime face an easy task, and in none was the path to success smooth. All of these countries, along with Bolivia, Ecuador, Mexico, Peru, and Venezuela, became mired in the great debt crisis of the 1980s, which reduced per capita real income in each. Most of these countries are only now emerging from beneath this crippling debt, with their reliance on liberalization renewed and deepened.

In the case of New Zealand, in the period since 1984, there were two main forces frustrating efforts at liberalization: first, the inflow of foreign currency resulting from the nation's increased overseas indebtedness, and second, the added foreign exchange produced by a modest boom in the world prices of a few of the country's traditional export goods.

The debt crisis has a special link to the worldwide adoption of liberalization, because everywhere the crisis struck it evolved out of a period of heavy international borrowing. This borrowing, in turn, generated an abundance of foreign exchange in local markets and reduced the real price of foreign exchange.[1] This obviously acted as a disincentive to export activity, thus confounding the natural effects of import liberalization.

So, with import protection being reduced and with cheap foreign exchange acting as a disincentive to all types of tradables production, it is no wonder that New Zealand's agriculture and manufacturing both experienced difficulties in the period 1985–1990. In spite of rises in the world prices of a few of the country's traditional exports, the total volume of its exports grew by only 8 percent over the five-year period.[2]

Beneath the surface, however, many good things were happening. First and most important, trade liberalization exposed many producers of tradable goods to genuine world-market competition for the first time. This led to significant and measurable improvements in productivity, especially in manufacturing and agriculture. It had an important, negative side effect, however: a reduction of about a third in manufacturing employment in a period of only five years. The positive end result is a productive structure that is far better able to compete in the world market—to grow when the circumstances are favorable, and to withstand adverse shocks when they appear.

These developments were facilitated by the comprehensiveness of New Zealand's liberalization process. Beyond the opening of the import and export sectors, it included an extensive streamlining of government, a new emphasis on efficiency, and significant movement toward privatizing activities that previously had been the province of government. It also motivated the taking of important steps toward deregulating a whole host of activities, in freeing numerous prices from control, and notably in bringing to a halt an inflationary process that was quite out of hand during the early 1980s.

What were the major mistakes that were made in the course of New Zealand's undertaking this thoroughgoing transformation of its economic policy? In this study, Alan Bollard points mainly to the heavy reliance on deficit financing in the early years of the reform. This surely contributed to the inflow of foreign capital, which in turn operated to keep foreign exchange abundant and to short-circuit the normal effects of liberalization on the real exchange rate. It also functioned to make domestic real interest rates high and thus to place a discouraging signal before businesses contemplating major investments.

In my view, there can be little doubt that New Zealand's liberalization experience would have been much more satisfactory had the government showed greater self-discipline from the start. It is hard to conceive of a nonliberalizing set of economic policies that, combined with the fiscal deficits actually sustained, would have produced happier results for the New Zealand economy. It is, however, easy to visualize how a significant reduction of fiscal deficits, especially in the early years of the new regime, could have combined with the actual package of liberalizing measures adopted to produce a far more satisfactory outcome.

Notes

1. It is a sad fact that economics is saddled with two ways of defining the exchange rate. In some countries (including Britain and New Zealand), the exchange rate is the price of the country's currency in foreign money. Under this definition, a flood of borrowing leads to a high real exchange rate. In many other countries (including all of Latin America), the exchange rate is the price of foreign money in terms of the domestic currency. By this definition, a flood of borrowing leads to a low real exchange rate. Readers should be alerted that the author of this study writes in the British (and New Zealand) tradition. His definition is thus different from that used in most other ICEG publications.

2. New Zealand devalued its currency by some 25 percent against the U.S. dollar during 1984, but by 1985 this devaluation had been offset by a rise in the general price level. Between 1985 and 1991 the nominal price of the U.S. dollar fell by 16 percent. To further add to the difficulties of tradables producers, internal prices and wages rose by some 60 percent. These effects were only mildly compensated for by a rise of about 12.8 percent in U.S. producer prices.

ALAN BOLLARD

New Zealand: Economic Reforms, 1984–1991

New Zealand is a group of islands in the Southern Pacific, the size of the British Isles but with a population of only 3.4 million. It is geographically isolated, sited more than two thousand kilometers from its nearest neighbor, Australia. Thanks to its fertile land and equitable climate, it is a major primary producer of temperate-climate agricultural products, its major commodities being wool, meat, dairy products, fruit, and forestry products. (For basic statistics about New Zealand, refer to Table 1.)

Until the 1960s most of New Zealand's production was sold in Britain with minimal domestic processing. As recently as the early 1950s, between 60 percent and 70 percent of New Zealand's exports went to Britain. New Zealand achieved considerable prosperity by exploiting its natural comparative advantage as a primary producer and as a result of preferential access to the British market; by 1953 the country enjoyed what was probably the third-highest standard of living in the world. This wealth allowed the government to provide a generous system of universal social security. In addition, the government sector directly provided almost all education, health and health services, and a wide range of other utilities, financial services, and the like.

Much as it helped New Zealand's prosperity in early days, the country has since paid for its dependence on Britain as a single market

TABLE 1 Data on New Zealand's Economy, 1991

Population	3.43 million
Persons per square kilometer	12
Population growth (in prior decade)	0.5% per year
Labor force	1.65 million
Unemployment rate	12%
Gross domestic product	U.S.$43.4 billion
GDP per capita	U.S.$12,630
Growth in GDP per capita[a]	1.1%
Exports	U.S.$12.8 billion
Exports	29% of GDP
Overseas debt (public and private)	U.S.$33.1 billion
Debt	75% of GDP
Consumer price index (annual change)	1%

NOTE: Data apply to calendar year 1991, and are estimated in some cases. Monetary amounts are expressed in 1991 dollars.
a. Average annual growth in prior decade.
SOURCE: New Zealand Institute of Economic Research, OECD.

and on its consequent dependence on primary production. In 1973 Britain joined the European Community, and access for New Zealand exports to that market has been increasingly restricted. In seeking alternative markets for its agricultural produce, New Zealand has been bedeviled by the EC's distortionary Common Agricultural Policy and its subsidized surpluses sold off in third-country markets, by East Asian agricultural protection, and by the politicized nature of agricultural access to U.S. markets. Consequently, New Zealand has over the last twenty years had the choice of selling into wealthy but protected markets or volatile, poor markets.

Most of New Zealand's produce has been sold through compulsory producer marketing boards, most of these with an export monopoly. This system has been criticized for leaving New Zealand with a "commodity mentality."[1] Not only has market access been difficult, but these commodity markets have suffered from highly inelastic demand with respect to income, and have been historically very volatile, inviting large terms-of-trade shocks. This is particularly important because the country trades a relatively high proportion of its gross domestic product (GDP). The results have included large variations in export returns and a continuing structural balance-of-payments problem.

As it struggled to find new markets, New Zealand was badly hit by the oil price shocks of 1974 and 1979. Just as damaging was the response of the government, which involved a major state-funded investment program, aimed in part at achieving energy self-sufficiency, and known as the "think big" program. Associated with this were large fiscal deficits and a series of strategic currency devaluations, whose competitive effects were very quickly inflated away. In addition, New Zealand maintained its tight domestic and foreign trade controls, in place since the 1920s.[2]

To finance the increasing government spending and to help maintain an equitable income distribution, high rates of income tax were levied (though they were not sufficient to avoid mounting public fiscal deficits). Largely as a result of borrowing for the "think big" program, total public debt skyrocketed from N.Z.$4 billion to N.Z.$28 billion during the decade following 1975.

The government increasingly looked to assist the economy to undergo structural change. This effort took the form of some tentative liberalization in shop trading hours, transport deregulation, and the tendering of import licences. However, faced by growing inflation, the government's response was to put in place a wage and price freeze and interventionist financial market regulation. Increasingly, its interventions were selective and arbitrary, and it continued to try to insulate trading sectors from world markets.

New Zealanders felt a mounting sense of frustration about the international trading system as they viewed continued Northern agricultural protectionism and subsidies, despite lip service being paid by industrial countries to reforms. Active attempts, through formation, with Australia, of the "Cairns Group," have been made to encourage agricultural reform through the Uruguay Round of the General Agreement on Tariffs and Trade (GATT). But along with the sense of frustration is a recognition that realism must prevail: the country is inevitably exposed to large price shocks and it is probably necessary to expose the producer to these directly so that some production response will prevail. Similarly, it would be unrealistic to expect New Zealand's structural problems to vanish as a result of world agricultural liberalization.

One important further development has been the growth of the Closer Economic Relationship with Australia. Starting in 1983, New Zealand entered an agreement for free trade in merchandise products and services (with only some service industries exempted). In practice there is also free movement of labor and effectively free movement of capital between the countries. The Closer Economic Relationship has resulted in the countries' intra-industry trade growing significantly: Australia is now New Zealand's major market for manufactured exports.

In the late 1970s, inflation mounted, productivity dropped, growth slowed, overseas debt was growing substantially, and New Zealand suffered from continuing market-access and terms-of-trade problems. In the production sector, investment growth was comparable to other Organization for Economic Cooperation and Development (OECD) countries. Similarly, domestic savings rates have not differed much from the OECD average since the 1960s. However, the returns on that investment were significantly lower in New Zealand.

Table 2 summarizes some recent economic indicators. In relative terms New Zealand has slipped down the scale of income. In 1950 New Zealand's GDP per capita was 26 percent above the OECD average. By 1990 it had dropped to 27 percent below. Figure 1 shows the decline in New Zealand's relative income ranking.[3]

The Case for Liberalization

The pressures to reform. By the early 1980s, it was clear that these direct government interventions to control wages and prices, and to regulate markets, trade, and investment, were not successful and were appearing increasingly ad hoc.

There was some consensus on the need for reform among the New Zealand electorate and political pressure groups: politicians themselves recognized the unsatisfactory results of the increasingly interventionist system of government. In addition, civil servants had become very cynical about this style of hands-on economic management, especially after the "think big" program of the 1970s.

Industrialists and farmers had been politically important during the post–World War II period, and this interest-group lobbying had been a major constraint to change during the 1970s, stultifying attempts to reform import protection, agricultural assistance, and industry regulation.

In 1984 a Labour party government was elected, one with which these rent-seeking groups had relatively little influence. In addition, many businesspeople already felt that the time had come for reform. The labor movement, which was a traditional supporter of Labour governments, also did not oppose the idea of reform.

What did these groups expect from economic liberalization? Probably most had a rather naive view that it would involve a relatively painless step from a sluggish low-growth economy to a faster-growth one, a change that would be reasonably neutral in its distributional effects and which could be achieved quickly without forcing the surrender of sectoral rents.

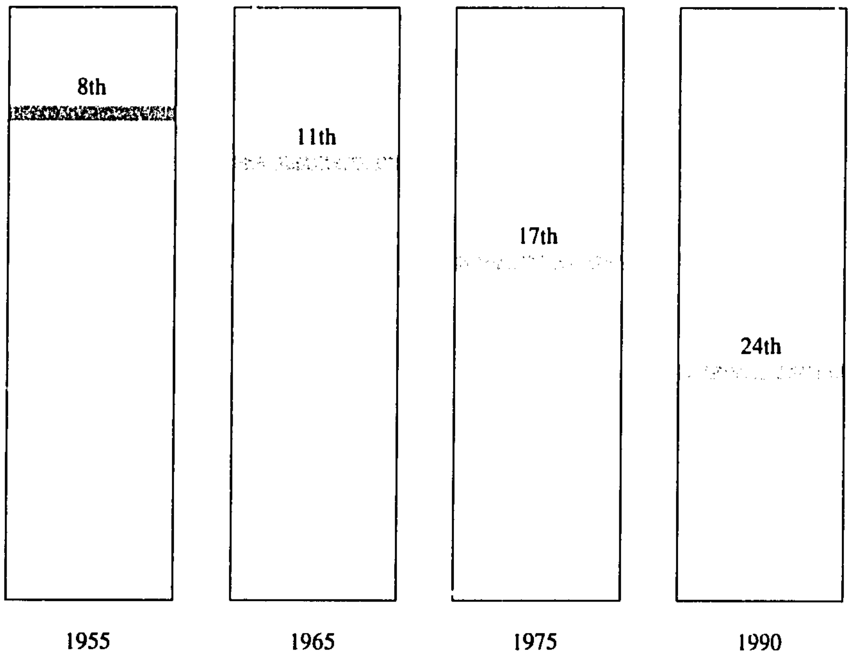
The strongest pressure for reform came from the Treasury Department. In New Zealand this is both a treasury and a ministry of finance, and commands a key position in government, able to use its statutory

TABLE 2 Some Economic Indicators (percentage)

	1983	1985	1987	1989	1991
Inflation rate[a]	15.40	8.60	14.60	5.20	5.5
Rate of unemployment[b]	5.40	3.80	4.10	7.40	9.9
Rate of interest[c]	13.80	21.00	27.40	13.40	12.1
Trade competitiveness[d]	0.97	0.72	0.98	0.95	1.0
Budget deficit[e]	-6.90	-7.20	-5.60	-2.50	-3.6
Trade deficit[f]	-6.20	-8.50	-5.30	-1.10	-2.8
Effective rate of assistance[g]					
Manufacturing	39.00	37.00	26.00	19.00	14
Agriculture	49.00	34.00	19.00	-1.00	-6
GDP growth	0.40	5.00	3.60	2.00	-1.3

a. Figures reflect average annual percentage change. The consumer price index for 1987, excluding the 1986 goods and services tax, was 11.5%; by December 1991 the CPI was 2.6%.
b. For 1983 and 1985, figures reflect registered unemployment; figures for subsequent years are Household Labour Force Survey measurements.
c. Interest on ninety-day treasury bills, measured in March.
d. Figures drawn from the New Zealand Institute of Economic Research (NZIER) relative unit-labor cost index (where 1978–79 = 1.00). A decrease in the index implies improved competitiveness.
e. Percentage of GDP; excludes revenue from state asset sales.
f. Percentage of GDP.
g. Some of the data do not match these fiscal years exactly.
SOURCE: New Zealand Institute of Economic Research.

FIGURE 1 New Zealand's Rank, Relative to Other Countries, in GDP per Capita



SOURCE: New Zealand Trade Development Board.

departmental monitoring powers to exert a direct influence through almost all areas of administration. Increasingly during the 1970s and early 1980s, the Treasury Department had been sidelined from economic influence by the interventionist tendencies of the government at the time. By 1980 the Treasury Department was arguably the only group in New Zealand that had formed a coherent view of what a reform program entailed, although, as it turned out, their view was a somewhat simplified one. In the event it has been a modified version of their program that has prevailed.

A small group of key Labour ministers shared this view of reform. New Zealand has a relatively thin political system: a single representative chamber, a two-party system (at that time) without splinter groups, no provincial state or local government economic policies of importance, no written constitution and no system of proportional representation. Thus these key ministers were able to push through some very radical reforms very quickly. This is in sharp contrast to Australia, which attempted some of the same programs but was unable to implement many of them because of the political checks and balances in the system.

Encouragement for reform came also from international organizations, particularly the International Monetary Fund (IMF) and the OECD, which pointed to the need for a classical structural reform program to move the country to a more acceptable growth path. However, it should be noted that by 1984, when the integrated reform process started, there was relatively little international experience of similar reform processes from which to draw. Probably the most comparable country programs were the partial reforms that were at that time under way in Margaret Thatcher's Britain. It is noteworthy that when Anne O. Krueger delivered an address on economic reform in New Zealand in 1985, the comparative examples she pointed to were Spain in the 1950s, Korea and Spain in the 1960s, China, Turkey, and the early experiments in the Southern Cone.[4]

The underlying theoretical framework. In 1984, when the Labour government came into office, it inherited a currency crisis and had to make some quick, difficult decisions. As Ross Garnaut has pointed out, macroeconomic crises in the Pacific region have generally been the catalysts for major structural reform programs, and this proved to be the case also in New Zealand.[5]

The theoretical paradigm underlying this view was a comprehensive and integrated set of new microeconomics-based "Chicago school" models. The most important of these were as follows:

- *The theory of public funding.* The traditional framework that had guided New Zealand policy decisions on public intervention in the funding process was the market-failure approach. Since 1984, however, reforms have been guided by the view that this approach was unneccessarily restrictive and needed to be widened into a general discussion on transactions governance.[6] The new model looks not only at market failure but also at bureaucratic failure and seeks organizational forms that allow transactions to be carried out in a way that will minimize their costs. Linked to this view has been the development of a public-choice theory that views producer interests as entities that spend to influence government decisions, in order to allow them to capture rents through interventions such as import protection.

- *The theory of ownership.* The new paradigm rejected traditional equity or nationalism-based arguments as to why the government should own trading activities. Instead it used the approach of the principal-agency theory to point out the inefficiencies that arise as a result of incentive and monitoring problems among shareholders, board members, management, and workers in the case of public ownership where there is no market for corporate control. This is primarily an efficiency approach: a view that more efficient and dynamic investment decisions would be taken under private ownership.

- *The theory of public provision.* The traditional New Zealand approach toward direct provision of many trading services by government seems to be based on a historical mistrust of the motives and operating ability of the private sector. In the 1980s, supply-side and public sector crowd-out theories lent some credence to the view that, with a lower tax burden, the private sector might prove more capable and efficient in providing such services.[7]

- *The theory of regulation.* The traditional regulatory view in New Zealand reflected concern about the anticompetitive effects of dominant firms, a general distrust of market allocation, and disbelief in domestic industry's ability to survive under competition. In addition there has been an embedded feeling, dating back to the nineteenth century, that both consumers and incumbent producers needed to be protected from new market entrants, lest destructive competition eventuate. Some industries, particularly state-owned utilities, have always operated under state monopoly rights. This all implied

> a strong preference for stable, nondynamic, market systems. In addition, direct price control was seen as the best way to protect consumers, initially from "profiteering" and later from inflation.

The development of transactions-cost and contestability theories led to a new view of the need for regulation of competition: under conditions of perfect contestability, many of the desirable welfare outcomes of perfect competition can result, provided that entry is threatened. This focused attention onto barriers to entry, both through domestic markets and imports. In industries where sunk costs are important, transactions-cost theory was seen to come into play. This satisfied officials that efficient allocation decisions could still be achieved in such circumstances, through market, private, or other governance structures.

These theoretical approaches and the way they affect production-sector and social sector reform in New Zealand are summarized in Table 3.

By the start of the 1980s, some of these theories were well established, but others, such as contestability theory, were still very new. Much of this latter work was theoretical and not yet well tested in laboratory or real policy situations. A seminar held at the time concluded that many of these theoretical results remained relatively underanalyzed or unadapted for policy use in New Zealand.[8] Certainly New Zealand university departments of economics had little work under way on the problems of liberalization, and officials had little experience of reforms to guide them.

The overall objective of this framework was to achieve efficiency, the assumption being that clearer market signals would prompt a private sector response that would (in some undefined way) result in allocative efficiency across the economy. The expectation was that this could be achieved primarily by microeconomic policy, with macroeconomic policy being secondary to and supportive of this goal. In particular, monetary policy would be devoted to achieving price stability, in order to reduce inflation-related costs and allow businesses to gain in international competitiveness.[9] It was felt fiscal policy should primarily offer the production sector a neutral environment for decision making and a reduced tax burden. Hence the fiscal policy focus would be on tax

TABLE 3 Changing Views of the Role of Government

	Government role in:			
	Provision of Funds	Ownership	Provision of Services	Regulation
Theoretical Basis				
Pre-1984	Market-failure theory	Equity/nationalistic arguments	Direct provision	Direct controls
Post-1984	Public-choice theory, property-rights theory	Principal-agency theory	Supply-side thinking	Contestability, transaction costs, light-handed regulation
Production Sector Policy				
Pre-1984	Direct funding by parliamentary vote	Widespread public ownership of utilities, etc.	Widespread public provision	Many regulatory monopolies, and price, import, and entry controls
Post-1984	Only for "public good" areas	Corporatization, some privatization	Contracting out, private sector crowd-in	Commerce Act and market competition
Social Sector Policy				
Pre-1991	Direct vote funding	Almost all government-owned	Almost all publicly provided	Licensing, but no market regulation
Post-1991(?)	Gradual move to private funding (with government safety net)	Some corporatized, some community-owned	Provision contracted out	Little change

neutrality, reform of distortionary subsidies, and removal of incentives for private sector investment, together with attention to the fiscal deficit: the so-called level playing field approach.

Rather less attention was paid to the growing theoretical literature on macroeconomic management during reform. Much of this theory was seen as being irrelevant or politically unrealistic. It was generally expected that once the economy was opened to international prices, world markets would dominate investment decisions and returns, leading to marked reallocation between sectors.

The role of government under this new economic framework would be much reduced. Little reason was seen for government ownership of production units or related assets, or for intervention where a market might operate. It was recognized that government would likely continue to fund some social services, or else regulate them to encourage private funding and provision. In addition, the government would likely withdraw from much of its direct economic control functions. There might continue to be areas where "light-handed" regulation would exist. The new paradigm eschewed the more traditional New Zealand public objectives of stabilization and equity.

The limitations of a monetary policy directed only at controlling inflation, and a fiscal policy aimed at reducing the size of government, represented a major change from traditional macroeconomic management and a change in views about the relative importance of stabilization. This partly reflected New Zealand's poor stabilization record during the 1970s and a feeling that basic structural problems underlay the economic difficulties. It also incorporated the "new classical" view of expectations, with its suspicions about traditional business cycle theory and government's ability to smooth such cycles. Whereas traditional policy objectives had been to cushion the economy from major international commodity price shocks, the new paradigm held that such cushioning would be at best ineffectual, and at worst, counterproductive, by preventing market prices from drawing out a rational producer response.

Equity policy has been an important objective of the New Zealand government over the last century, and the country has long prided itself on its relatively equitable distribution of income and assets, its broad-based provision of social services. It was implicit in the efficiency objectives of reform that government would step back from this redistribution process. Underlying this was a libertarian view that there are moral reasons for a small government that does not interfere in interpersonal consumption decisions.

Finally, it must be noted that despite this reasonably integrated economic framework, much of the impetus for reform resulted from pragmatic reasons, such as the failure of earlier policies.

Major Policy Reforms, 1984–1991

Following the election of the Labour government in 1984, New Zealand's program of economic liberalization commenced. The program was based on a view of firms competing within an industry, buying in factor markets, selling in product markets, and directly regulated by government. This represents a useful framework by which to classify the reforms, which are summarized in Table 4.[10]

Factor market deregulation. Reform in the factor markets was an important early focus of the economic liberalization program. The government viewed finance, transport, and energy as three key sectors that were of strategic importance to many other industries, and chose to concentrate its attention on these. This involved a range of reforms, in particular the removal of many market-entry restrictions, price controls, regulatory monopolies, and operating restrictions. For the first time, road freight could compete freely with rail freight, trustee savings banks with trading banks, and electricity utilities with gas utilities. The expectation was that potential efficiency improvements in these three tightly regulated sectors were very large and that they would feed quickly through to other industrial consumers.

Another important input, technology, received attention a few years later, through import liberalization and reform of R&D funding.

The only important factor market that was not seriously addressed early was the labor market. Minor reforms in 1984 and 1987 did not directly tackle the question of labor flexibility, although they had some indirect effects. During the early years of the reform program, high national wage settlements continued to be made, limiting the contribution to welfare of product market deregulation. Further reform seemed impractical for a Labour government. In 1991, however, a new National party government enacted the Employment Contracts Act, a more radical piece of legislation, providing for freedom of employer-employee bargaining arrangements.

Industry deregulation. In contrast to input markets, product markets had never been as heavily regulated in New Zealand, and so reform of product markets was consequently less critical. The main focus was the agricultural sector, which had enjoyed some price support and concessional financing. These were removed, as were domestic marketing boards, but compulsory producer export marketing boards were retained.

A number of other reforms affected operations across a broad spectrum of industry. This included the end of the general wage and price freeze, and the removal of price control on a long list of products. It also involved the removal of quantity licensing in industries, and in some cases quality licensing. State-regulated monopoly rights (for example in electricity, telecommunications, and postal services) were almost all removed. Occupational licensing in a range of professions and trades was deregulated. The tight restrictions on shop trading hours were liberalized. The intention of all these reforms was to allow businesses to respond to unfettered market signals in the domestic economy.

At the same time, the legislation defining the rules by which businesses operated in this new deregulated environment were revised. The main instrument was the 1986 Commerce Act, which governs mergers and trade practices on a relatively liberal basis. Similar efficiency-based tests were, however, used in only part of the accompanying business law reform. This issue has been hotly debated in reviews of consumer protection legislation, securities legislation, takeover laws, intellectual property legislation, and planning requirements for business.

In addition, the reformers had to deal with the problem of natural monopoly in New Zealand and the optimal structure for efficiency incentives there. This was done in two steps.

- Through the removal of regulatory barriers to entry and reduction in import protection, the range of industries considered to comprise "natural monopoly" problems was considerably narrowed. Some (for example, railways) became vulnerable to domestic competition, and others became vulnerable to the threat of imports from overseas (for example, paper products). In addition, in some industries such as electricity, natural monopoly cores were split away from the more contestable operations.

- Remaining natural monopoly operations have been left subject to the "dominant firm" provisions in the Commerce Act. Sometimes this is accompanied by additional light-handed regulation, such as requirements for disclosure of accounts or contracts.

TABLE 4 Economic Reforms	
Factor market	
Finance industry	
Abolition of credit growth guidelines	1984
Removal of separate requirements for trustee banks, building societies, finance houses, stockbrokers	1985–1987
Removal of quantity restrictions and other entry barriers to banking	1985–1986
End of formal financial controls (reserve ratio requirements, sector lending priorities)	1985
Removal of interest rate controls	1984
Abolition of export credit guarantees	1984
Removal of ownership restrictions on financial institutions	1985
Liberalization of stock exchange	1986
Energy industry	
Corporatization of state coal mines	1987
Financial restructuring of oil refinery	1988–1991
Legalization of oil company ownership of service stations	1988
End of price control (except on natural gas)	1984–1988
Sale of state natural gas exploitation/distribution interests	1988–1990
Sale of other state energy holdings	1990–1992
Corporatization and restructuring of electricity generation, transmission and distribution	1986–1991
Transport industry	
Removal of restrictions on road and rail carriage	1983–1986
End of quantity licensing of trucking	1984
Corporatization of state rail, air, and bus services	1982–1984
Tendering of local authority bus services and liberalization of licensing requirements	1990–1991
Deregulation of taxi industry	1990
Opening up of domestic aviation industry	1987
Granting of number of landing and on-flying rights to foreign airlines in New Zealand	1989
Corporatization or sale of airports and Airways Corporation	1986–1991
Corporatization of ports	1989
Deregulation of stevedoring industry	1990
Removal of cabotage on coastal shipping	1991
Research and development	
Removal of concessions for research and development to put on equal footing with all investment	1984
Cost-recovery of public R&D work	1985
Establishment of a contestable pool of public funds (Foundation of Research Science & Technology)	1990

(continued on next page)

TABLE 4 *(continued)*

Corporatization of government research bodies (Crown Research Institutes)	1992
Labor market	
Introduction of voluntary unionism	1983
More market-based bargaining under Industrial Relations Act Amendment: compulsory unionism reinstituted	1984
Some contestability in union coverage under Labour Relations Act	1987
Radical reform via Employment Contracts Act (voluntary unionism, contestable unions of any size, any arrangements for employer/employee bargaining at joint or individual level)	1990
Industry	
Product markets	
Termination of supplementary minimum prices on agricultural products	1984
Agricultural tax concessions removed	1985
Termination of concessional financing of primary producer stocks held by producer boards	1986–1988
Review of compulsory producer marketing board arrangements	1987
Termination of domestic boards for eggs, milk, wheat	1984–1988
Termination of export market development incentive schemes	1984
Phase out of export performance tax incentives	1984–1987
Industrial regulations	
End of wage/price freeze	1984
Termination of price control, and replacement by (unused) price surveillance powers under Commerce Act	1984–1988
Removal of quantity licensing on almost all industries, and end of quality regulation on most	1986–1988
End of all state-regulated monopoly rights (except letter post, air traffic control, and milk distribution)	1984–1986
Removal of some occupational licensing	1985–1990
Removal of producer cooperative tax advantages	1989
Termination of restrictions on shop trading hours	1989
Business law	
Establishment of Commerce Act as liberal efficiency-based regime to govern mergers and trade practices	1986
Fair Trading Act governing consumer rights	1986
Review of securities legislation and takeover law (extent of efficiency approach still under discussions)	1988–1991
Review of intellectual property regime (patent, copyright, trademarks, and designs acts)	1990–1991
Review of Town and Country Planning	1987–1990

(continued on next page)

TABLE 4 *(continued)*	
Resource Management Act to govern more liberal planning and environmental legislation	1991
Crown Minerals Act to clarify property rights to mineral resources	1991
International trade and monetary policy	
Import protection	
Phasing out of import licensing requirements	1983–1989
Reduction of import tariffs according to "Swiss" formula, to 10% from average 28%	1986–1992
Further one-third reduction in import tariffs (planned)	1992–1996
Removal of special protection features for eighteen specific "industry plan" sectors and incorporation into general tariff reform progam	1984–1992
Slower reduction of tariffs on two remaining "special" industries (motor vehicles and components; textiles, clothing and footwear)	1987–1996
International capital controls	
Removal of controls on external investment/borrowing	1984
Free entry of foreign direct investment (approved by New Zealand Overseas Investment Commission)	1985, 1989
Very liberal regime for portfolio investment and repatriation of profit	1985
Exchange rate controls	
Deregulation of foreign exchange trading	1984
Twenty-percent devaluation against basket of currencies	1984
Free float of currency on foreign exchange markets without direct control	1985
Monetary policy	
Devotion of monetary policy instruments to deflation, with target of "price stability" (0%–2% price increase) by 1992–1993	1989
Tight monetary policy (M3 growth held below rate of inflation)	1987–
Independence of Reserve Bank from government, formalized through Reserve Bank Act	1989
Government sector	
State trading operations	
Removal of almost all state regulated monopoly rights	1984–1989
Corporatization of twenty-four state-owned enterprises (in transport, finance, tourism, forestry, broadcasting, utilities, and service industries)	1987–1988
Restructuring to isolate natural monopoly elements of state-owned enterprises	1989–1991
Full or partial privatization of Air New Zealand, Bank of New Zealand, Petroleum Corporation, Tourist Hotel Corporation,	

(continued on next page)

TABLE 4 *(continued)*

Shipping Corporation, Rural Bank, Government Life, Forestry Corporation, Post Office Bank, Telecom Corporation and others	1987-1991
Further privatization planned via divestment of asset sales, sale of rights, share sales, etc.	1991-
Requirement for local authorities to corporatize Local Authority Trading Enterprises (LATEs) and tender out services	1990-1991
Encouragement to local authorities to sell holdings in airports, port companies and local utilities	1991
Sale of other assets, e.g., irrigation schemes, fishing rights	1983-1988
Taxation	
Broadened tax base through "Goods and Services Tax" on virtually all final domestic consumption without exception (now 12.5%)	1986
Flattening and lowering of personal income tax rate, with top rate standardized to corporate tax levels, and aimed to minimize poverty traps.	1988
Standardization and simplification of corporate taxation to minimize evasion and cut administrative costs	1985
Removal of most other indirect taxes	1986-1991
Removal of tax concessions for savings, etc., to put on neutral footing	1987
Expenditure control	
Attempts at reduction in government expenditure, especially in areas of administration and industry development	1985-
Assignment of proceeds of sale of state-owned enterprise assets to repay public debt	1987-
Public sector management reform through Public Finance Act	1989
Reform of core government departments on corporate lines through State Sector Act of 1988, with separation of policy, provision and funding	1986-
User-pays principles for remaining state trading activity	1986-
Redesign of government accounts on more commercial basis, accrual accounting, output-based monitoring systems through Public Finance Act	1988
Abolition of fifty quasi-non-governmental and quasi-governmental organizations	1987
Renewed attempt at reduction in social spending (education, health, social welfare, superannuation)	1991
Social services	
Reform of compulsory education system, based on elected boards of trustees	1988-1990
Quasi-corporatization and fee-paying for tertiary education institutions	1992
Integration of state housing assistance into private sector rental and mortgage provision	1991

(continued on next page)

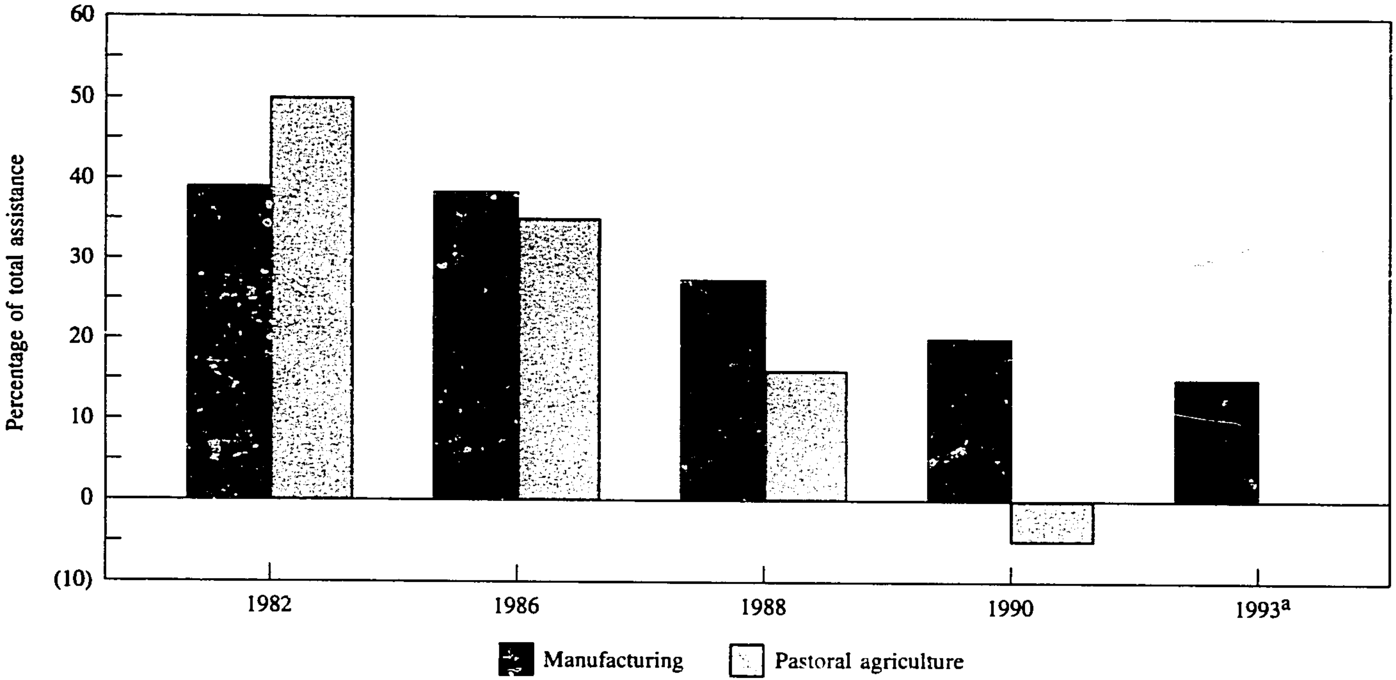
TABLE 4 (continued)	
Tightening of requirements and reduction of levels of unemployment benefits and other government social transfers	1990
Tightening of requirements, extension of age, and reduction of benefits for government-funded old-age pension scheme	1989-1991
Separation of funding from provision of state health services, establishment of Crown Health Enterprises, and expectations of private sector crowd-in	1992
Likely development of private funding arrangements for health provision	1992

International trade and monetary reform. The import-competing sector in New Zealand had for most of its history been sheltered behind a protective wall of high tariffs, import licences, capital controls, and fixed exchange rates. Possibly the most crucial aspect of microeconomic reform has been focused on removing this insulating barrier, to drive domestic prices toward international levels. This has certainly been the most disruptive area of reform in its effect on the traded sector.

On the import-protection side, import licensing was phased out over a period of four years, exposing for the first time the underlying high nominal tariff structure. This tariff structure was then rationalized under a "Swiss" formula (whereby items with the highest tariffs are reduced by the highest percentage). The tariff-reduction program continues and, under current policy, nominal tariff rates will be reduced to an average of 10 percent (expressed as a percentage of value) by 1992–93, with a further one-third reduction by 1996. This will reduce the tariffs to near the OECD average. It is notable, however, that New Zealand's tariff structure has a high variance, and there are still high (30 percent to 45 percent) tariffs on footwear, clothing, textiles, and car assembly.

Together with the reduction in agricultural and industrial subsidies, this reduction in import protection has had the effect of decreasing effective assistance in New Zealand. As shown in Figure 2, the effective rate of assistance to agriculture has been lowered from 50 percent to a negative level in less than a decade. The manufacturing sector has suffered less reduction. The outcome has been particularly harsh on the traded sector. For example, simulation shows a true rate of assistance in 1992–93 of 2 percent in import-competing sectors and -6 percent in the export sector.[11]

FIGURE 2 Effective Rates of Assistance in Manufacturing and Agriculture



a. An estimated figure for pastoral agriculture in 1993 was not available.

SOURCES: Estimates by Syntec, New Zealand Treasury Department, and New Zealand Ministry of Agriculture and Fisheries.

New Zealand has traditionally had tight regulation on the movement of international capital. This regulation has now been almost totally lifted, with the result that foreign investment into New Zealand in almost any form, direct portfolio or equity, is virtually free: there are now essentially no restrictions on the movement of capital outside New Zealand, nor on the establishment of foreign-owned companies in New Zealand.

The setting of the exchange rate has also been completely deregulated. In 1984 a financial crisis followed the general election, and the incoming government devalued the New Zealand dollar by 20 percent. The following year the currency was freely floated on foreign exchange markets without direct control. Regulation of the foreign exchange industry was eased, and the market responded with the introduction of new foreign exchange hedging instruments.

Monetary policy was simplified: the principal objective of monetary policy was to be deflation, with a single principal target of "price stability" (defined as annual inflation running between 0 percent and 2 percent), initially set to be achieved by 1992. This policy was further formalized in 1989 by the establishment of the Reserve Bank as an institution independent from government and under contract to achieve price stability. Tight monetary policy, the liberalization of international capital controls, and floating exchange rates led to real exchange rate shifts that provided the most important single pressure for continued reform.

Government sector reform. The New Zealand government had long been the provider of many market services across a range of industries. One of the important reforms of the period was a decision that the government should stand aside from the provision of traded services. It did this through the corporatization of twenty-four state-owned enterprises and utilities, transport, finance, and other industries during the period 1986–1989.[12]

In conjunction with this, almost all monopoly rights for state-owned enterprises were removed. Following these steps, about half of all state-owned enterprises have been privatized.

More recently, pressure has been applied for local authorities to follow a similar path, corporatizing services via Local Authority Trading Enterprises (LATEs) and tendering provision of services. Table 5 shows progress in corporatization and privatization to date.[13]

Considerable fiscal reform was undertaken as part of the liberalization process. The tax base was broadened through a universal value-added tax on final domestic consumption. Income tax rates were restructured by being first flattened and reduced, then standardized with corporate rates. Other indirect taxes and tax concessions were generally removed, the aim being to set up as neutral as possible a tax system without incentives or disincentives for particular types of saving or spending.

On the expenditure side, the government had long been running sizable fiscal deficits. It made some attempts to reduce these, mainly by cutting back on administrative and industry spending. For a time there was some success in reducing fiscal deficits. This was achieved not so much by expenditure reduction, but rather by the improved efficiency of the taxation system in increasing revenue. When economic growth halted at the end of the 1980s, government revenue fell, exposing a continuing structural deficit. In the meantime, spending on social services increased. Since 1990–91 there has been a renewed attempt at reducing public expenditure on social services by the National party government.

Core departmental services have been reorganized along corporate lines with outputs being specified. The user-pays principle has been introduced for many government services (both internal and market). A number of quasigovernmental advisory and operating organizations have been abolished.

The final major area of reform outstanding is the provision of social services. Much of this in New Zealand has traditionally been done by government on a universal-provision, tax-funded basis.

The education system has already gone through some reform, aimed at passing more control and responsibility onto parents. A range of benefits, including unemployment relief, housing assistance, and other social transfers, have been tightened and reduced in order to save money and reduce incentives to rely on government benefits. New Zealand has a generous, nonfunded old-age pension scheme that consumes 17 percent of public spending. The requirements for this have been considerably tightened, with the likelihood of a new contributed funding system in the future. In the health services area, public hospitals are being converted to Crown (that is, state) health enterprises, and together

TABLE 5 Reform of State-owned Enterprises (SOEs)

	Original activity	Current status (1991)
Corporate forms predating 1987		
New Zealand Railways Corporation	Train, bus, ferry services	Non-core assets into separate disposal SOE
Housing Corporation	Concessional mortgages and rental properties	Some mortgages sold
Development Finance Corporation	Development bank	Sold, under statutory management
Bank of New Zealand	Trading bank	Part sold, privatized
Air New Zealand, Ltd.	Domestic and international air services	Privatized
Petroleum Corporation of New Zealand	Oil and gas production	Privatized
Tourist Hotel Corporation of New Zealand	Hotels	Privatized
Shipping Corporation of New Zealand, Ltd.	Shipping services	Privatized
Rural Bank	Agricultural bank	Privatized
Corporations established under 1987 act		
Airways Corporation of New Zealand, Ltd.	Air traffic control	SOE
Coal Corporation of New Zealand, Ltd.	Coal mining	Setting ownership claims, likely sale
Electricity Corporation of New Zealand, Ltd.	Electricity generation and transmission	Transmission into separate SOE, likely sale
Government Life Insurance Corporation	Life insurance	Now owned by policyholders
Government Property Services, Ltd.	Government property holdings	Selling assets
Land Corporation, Ltd.	Government rural landholdings	Mortgages sold
New Zealand Forestry Corporation, Ltd.	Forests and sawmills	Some forests sold
New Zealand Post, Ltd.	Postal services	Preparing for possible sale
Post Office Bank, Ltd.	Savings bank	Privatized
Telecom Corporation of New Zealand, Ltd.	Telephone services	Privatized

(continued on next page)

TABLE 5 (*continued*)

	Original activity	Current status (1991)
Corporations established in 1988		
Works and Development Services Corporation	Civil engineering	SOE
Government Computing Services, Ltd.	Computer systems	SOE
Government Supply Brokerage Corporation	Government purchasing company	Preparing for sale
Radio New Zealand, Ltd.	National radio services	SOE
Television New Zealand, Ltd.	Two national TV channels	SOE
Uncorporatized bodies		
Health Computing Services	Health computing	Privatized
Government Print	Printing	Privatized
National Film Unit	Film making	Sold to SOE
Communicate New Zealand	Publicity services	Privatized
Local authorized corporations		
13 Port Companies	Port operations	Minor share privatizations
24 Airport Companies	Airport management	Possible privatizations
52 Electrical Supply Authorities	Local electricity distribution	Preparing for privatizations
Local Authority Trading Enterprises	Buses, garbage collection, other services	Some contracting out

SOURCE: I. Duncan and A. Bollard, *The Corporatisation and Privatisation of State Trading Activities in New Zealand*. Auckland: Oxford University Press (forthcoming).

with the private sector they will compete for government contracts to provide health services.

The general objectives of the government reforms have been to increase efficiency in the provision of market services by reducing the role of the public sector, to maintain a minimal regulatory stance, and to design fiscal policy that is not primarily intended for stabilization. Government expenditure, it is felt, should encourage a more streamlined service in a way that is relatively neutral to private sector operations. The implication of these reforms is much smaller government, though this has not yet been achieved.

Adjusting to Liberalization: The Theory and the Expectations

The big bang versus the gradual approach. Two extremes of approach to liberalization are possible: the "big bang" approach removes existing restrictions on market mechanisms instantaneously, and confronts markets with sudden major price discrepancies. The gradual approach aims to neutralize these regulations first, by putting in place interim compensatory interventions. This more gradual program would use partial reforms within a controlled sector, so that when regulation was lifted, adjustment would already have taken place and no major price discontinuities would suddenly result.

There are several dangers accompanying the first approach: adjustment costs may end up being so large that they negate the value of reform, or that they dissuade reformers from completing their program. Furthermore, a disequilibrium adjustment path can lead to a suboptimal equilibrium outcome not envisaged by reform. The big bang approach, of course, does not necessarily imply that all reforms need to be done at once; rather it relates to the speed with which each step needs to be taken.

What was expected to be the outcome of the reform process in New Zealand? Although the government had formulated a view of policy developments, its expectation about the adjustment process had not been formulated in the same detail. The program was viewed as a comparative-static exercise moving from one equilibrium to another one, changing a protected, interventionist, low-growth economy to an unregulated, efficient, open market. It was envisaged that great changes would take place over a short, but unspecified, time period—that is, the big bang approach. While the adjustment was not necessarily expected to be flexible and smooth, neither were major adjustment problems envisaged.

The New Zealand Treasury Department distrusted the gradualist approach: on the basis of postwar governments' ability to maintain a long-term policy stance, they doubted the chances of sustaining a gradual program for the length of time necessary. They also doubted their own ability to identify and carry out the specific managed interventions necessary for the gradual approach. In addition they felt that a speedy program was necessary to maintain credibility in the reforms, and because there were pressing problems to address, such as mounting debt.

It was felt that economic liberalization should be implemented as quickly as practicable, in order to reduce adjustment costs, prevent interest groups from regrouping and inhibiting change, and to give politicians less time to turn their backs on reform. It was recognized, however, that the administrative capacity available to handle the radical changes could be a significant restraint on speed.

The general equilibrium framework and disequilibrium issues. The economic liberalization program was built on individual market reforms. It was felt that these would add up in some undefined way to system-wide reform. However, the general equilibrium implications of reform were never fully explored, and they caused some problems: in particular, the effects that the under-reformed government sector had on the private sector, and the interrelationship of price flexibility in some sectors and inflexibility in others. The "theory of the second-best" warns of such problems: it says that partial policy reforms in the direction of some general optimum result cannot be assured of yielding an improvement. In brief, there is no guaranteed predictive power in partial policy reform. And yet all such policy reform, even in a "big bang," is inevitably partial in one sense or another.

General equilibrium theory is itself frequently based on unsatisfactory dynamic elements that fail to model some important elements of structural change. The implicit model in New Zealand was deficient in this respect: the model assumed away sunk costs and focused on investment and growth, rather than on disinvestment and resource allocation, which proved to be much more pressing issues; it also ignored the generally accepted approach to sequencing and timing. The New

Zealand model seemed to assume that the big bang approach meant that such theoretical issues could be sidestepped in practice.

The established principles of sequencing are:

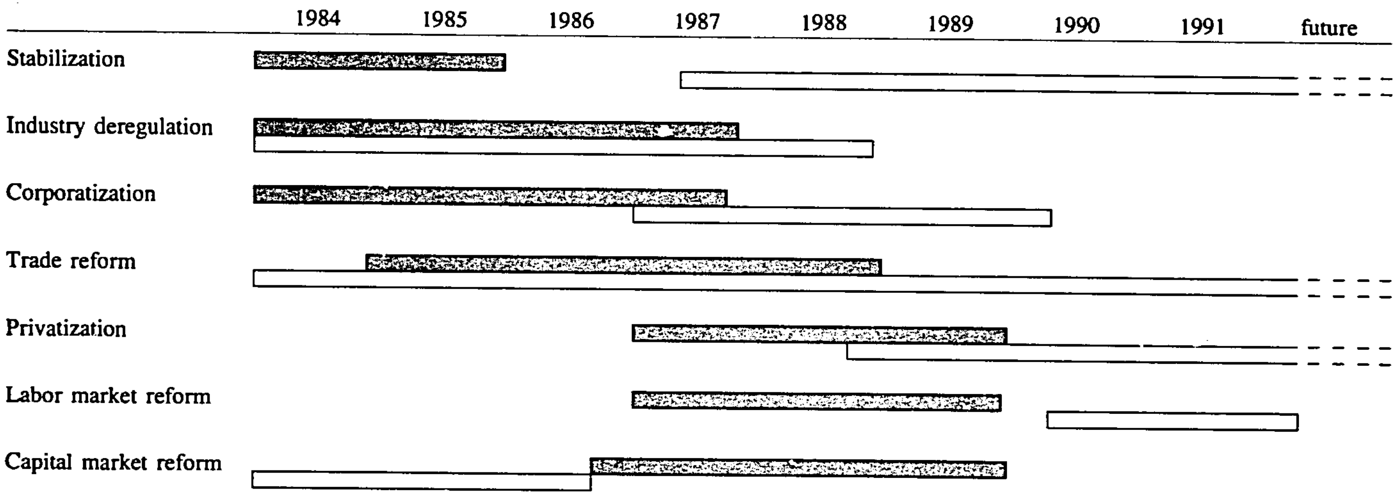
- Stabilize before structural reform to ensure that the government sector is in balance and that no major price movements will take place on opening up.
- Deregulate product markets and labor markets before financial ones, to ensure that commodity rather than capital flows, determine the real exchange rate.
- Deregulate domestic markets before external ones, in order to allow local interests to absorb any economic rents, and to retain internal balance before opening up.

All of these rules were broken in New Zealand, though sometimes for good reasons. The sequence of reforms followed in the case of New Zealand is shown in Figure 3, and compared with a conceptualized "recommended" program.

The key issue is the interrelationship of stabilization and structural reform. Macroeconomic imbalance and structural rigidity, which occurred in the New Zealand case, are related but distinct conditions. Reform of one cannot necessarily be relied on to solve the other. Yet when both structural and stabilization problems exist alongside one another it is very difficult to separate them. Sometimes even the instruments of reform cannot be clearly labeled as uniquely "structural" or "stabilizing."

For example, the reform of monetary policy in New Zealand involved restructuring the Reserve Bank to increase credibility. Here, in contradiction to the prescribed sequence, it was necessary to carry out structural adjustments first in order to develop improved stabilizing instruments. A further reason why stabilization was delayed was that it would have taken some years to complete, during which time reforms would still have been urgently needed. In addition, the early structural reforms in New Zealand allowed further distortions in the economy and the stabilization problem to be clearly identified. A number of the theoretical models of reform allow for this atypical sequencing.[14]

FIGURE 3 ''Recomm‹nded'' and Actual Phasing of Reforms



NOTE: This diagram is only conceptual in nature. The ''recommended'' phasing is derived from a generalized proposal for speedy reform in H. Genberg, ''On the Sequencing of Reforms in Eastern Europe,'' IMF Working Paper 9/13, 1991. This program was that generally promoted by the International Monetary Fund and World Bank during the 1980s. It was always realized that individual differences would exist. As the experience of liberalization widens, the bank now appears to be taking a more agnostic view, judging each country on its particular characteristics.

''Recommended'' path for ''big bang'' reform

Actual reform path in New Zealand

New Zealand also contravened the second guideline, that labor and product market deregulation should be undertaken before financial market reform. One reason for this was that the structural adjustments required in industry and government needed to be financed; this could not easily have been done with the highly restrictive capital markets and credit rationing that existed before reform.

New Zealand also paid for its failure to negotiate labor market reform at the outset. Following the 1984 devaluation, there was an 18 percent increase in wage settlements that effectively inflated away the potential competitiveness benefits of devaluation. Arguably, labor market reform would have avoided this. Yet it was probably never realistic to expect a Labour government to carry out radical labor market reform, and indeed the social and distributional issues raised by such reform are so important as to require measured responses.

The third argument, that domestic reform should be carried out before international reform, causes a problem of timing. While capital controls and export subsidies can be lifted overnight, removal of import protection typically takes some time, and arguably this is as it should be. As an example, it took four years to end import licensing, and tariff reduction is on an eight-year scheduled phase-down.

In other cases, certain early reforms required other reforms to be carried out, often at odds with the recommended sequencing. For instance, stabilization involved the removal of agricultural assistance, and in turn this called for a rapid reduction in import protection to avoid a greater fall in output.

The rate and costs of adjustment. Given that the reforms were speedily undertaken and the signals unmistaken, how fast was adjustment expected to take place? An early report drew on the British and Southern Cone experiments to warn of the likelihood that there would be long lags in response, due principally to sunk costs in production, that in turn would slow down the optimal rate of disinvestment and limit the flexibility of business to respond: the so-called hysterisis effect.[15]

Businesses (including the trading arms of government) encounter sunk costs at many levels.[16]

- The ownership of capital equipment is a sunk cost when it is not portable or has no secondhand market.

- In labor relations, staff usually cannot be costlessly laid off, because of employment legislation or explicit/implicit employee contracts. In addition, sunk costs abound where retraining or a change in cultural outlook need to take place.

- Market relationships, once built up, cannot be easily broken without incurring a penalty or adverse effects on reputation.

Though alerted to the possibility of hysterisis by accepted microeconomic theory, little practical attention was paid to the dangers involved. The government took the view that it was beyond the policy makers' immediate concern just how adjustment would take place.

A further important issue is pricing behavior. A number of studies had characterized New Zealand business pricing as following a classic "cost-plus" pattern within a regulated environment, and this was viewed as one reason for New Zealand's inability to decrease inflation.[17] It was hoped that one outcome of industry deregulation would be to force a change in firms' pricing behavior, which would in turn facilitate deflation.[18]

The broad assumption of the reform program was that all prices were potentially flexible. In practice, however, it took five years of very tight trading conditions and two waves of labor market reform to move toward such flexibility. Even today there remains an unanswered question about the degree to which core pricing behavior in New Zealand has fundamentally altered.

What determines how large adjustment costs will be? Such costs are influenced by the magnitude of changes required (that is, the extent of disequilibrium) and by the speed of adjustment. The latter, in turn, depends on sunk costs: those costs that are irrevocably incurred and cannot be recovered when it is necessary to disinvest in assets, institutions, people, expectations, and other intangibles.

Another way to put this argument is to look at the opportunity costs of displaced assets—that is, the likelihood of their redeployment in other uses. In contrast to the rapidly growing economies of East Asia, which have reabsorbed resources in other sectors very quickly following reform, New Zealand's economy has been so stagnant that the only choice for many assets is unemployment: sunk costs have consequently been much higher.

These adjustment costs emerge in the forms of unemployment, interim income reduction, and profit decline. A further complication involves trying to separate out avoidable adjustment costs from losses in wealth due to changing international prices or an adjustment to lower real living standards. The assumption was that these costs would, however, be less than the ongoing costs of nonadjustment, principally allocative inefficiency, economic rents, and high tax burdens.

The reformers' intention was that signals to reform should be transmitted through the price system—competition yielding low prices as an incentive for efficiency (or, if necessary, exit), high prices inducing entry and innovation. It is notable that this was expected to apply equally across all industries, even in strategic sectors such as banking. Financial services deregulation was put in place on the assumption that banks could compete and fail in the interests of allocative efficiency, just as any other industry. The belief was that instruments such as government guarantees or guaranteed deposit insurance schemes would only blur the true price signals, slow adjustment, and induce moral hazard.

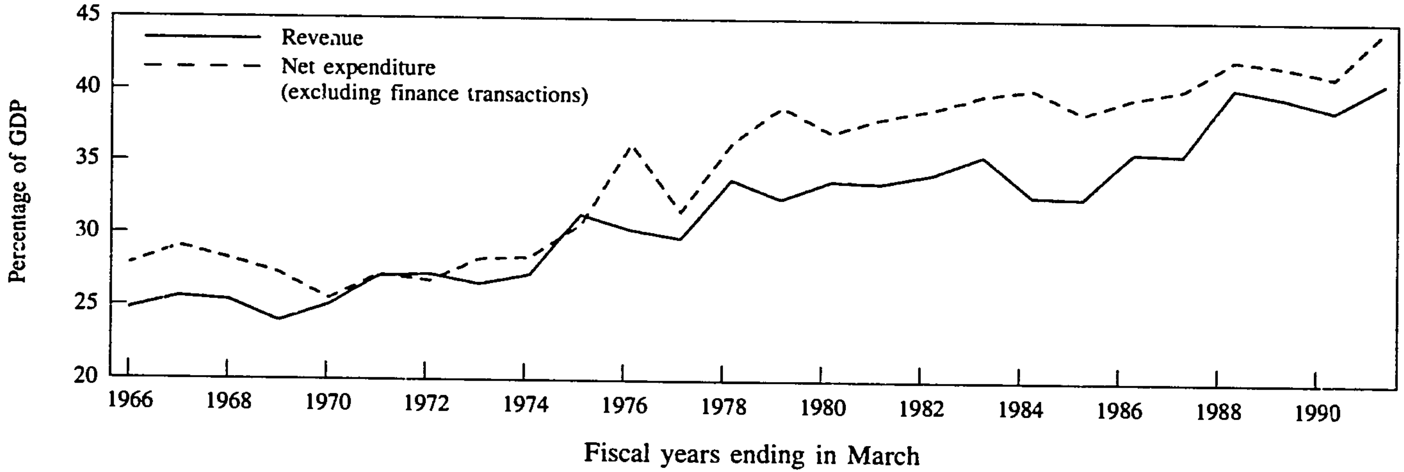
A further feature was that the prices used were to be international ones. But in practice, there turned out to be an important difference in the way reform was signaled to the traded and nontraded sectors. The latter sectors were not initially exposed to international price signals, and the burden of adjustment fell on the traded sectors, as is explained in the next section.

How the Economy Responded

Signals to reform. There were three principal channels through which the shocks of structural reform were signaled to the domestic economy: high interest rates, high real exchange rates, and depressed demand conditions.

Rates of interest. The government commenced the period of reform with several years of high fiscal deficit and high and growing debt, despite its policy objective of reducing government expenditure. The deficit was reduced in the early years of reform, but from the late 1980s began to grow again, because of continued high social spending and poor revenue, as is shown in Figure 4. The outcome was that the

FIGURE 4 Central Government Revenue and Expenditure



SOURCES: Budget, New Zealand Department of Statistics, various years; New Zealand Institute of Economic Research.

government continued to have a strong demand for funds to finance its deficit, which helped build up interest rates.

At the same time, the Reserve Bank was running a relatively tight monetary policy in pursuit of price stability. This combination of tight monetary policy and loose fiscal policy typically encourages high interest rates, particularly with regard to short term rates. In New Zealand's case, real rates also remained high, because of perceived exchange rate risk, country risk, and high world real rates.

The government had repeatedly told New Zealand businesses looking for relief that they should follow market signals. Market signals of high interest rates implied that they should only invest in projects with very high rates of return, and this was the common response. From 1986 to 1991 the annual rate of market sector real capital formation by business averaged only 3.5 percent, and much of this was due to state-owned enterprise investment that followed relief from departmental spending restrictions.

Exchange rates. The New Zealand dollar was devalued by 20 percent in 1984, then subsequently floated, allowed to be determined by market forces, in 1985. The widespread view at the time was that New Zealand was basically a noncompetitive trading country, and therefore the balance of risk was that the New Zealand dollar would depreciate. Instead the currency rose strongly against the trade-weighted index. The main reasons were that the high rate of interest, the government's demand for finance, overseas perception of investment opportunities in New Zealand, and the newly deregulated financial sector attracted considerable capital flows from abroad. During 1988 the Reserve Bank appeared to change the focus of its monetary policy to include exchange rate stability among its criteria.

Initially, New Zealand's inflation rate stayed high, compared with the rates of its trading partners. The effect of this, along with the increase in the nominal exchange rate, was a marked rise in the real exchange rate, as is shown in Figure 5. Various real exchange rate measures indicate differing magnitudes of increase, but it is clear that since 1986, the real exchange rate has stayed higher than its average level from 1970 to 1983. In mid-1988 a gradual decline commenced, though the rate is still significantly higher than in the pre-reform period. Some of the movement in the real exchange rate has been driven by the terms of trade.

Nevertheless, the implication is that New Zealand industrial competitiveness, at least in the traded sector, has been considerably impaired.

Did the designers of the exchange rate adjustment overshoot? What occurred was the result of a very flexible capital market and a relatively inflexible domestic price system that took time to adjust. (It should be added that the 1984 devaluation may also have been an example of overshooting that exacerbated subsequent adjustments.) With the high exchange rate, pressures from imported inflation were reduced, and gradually this was mirrored by tighter domestic cost control. The result was that relative inflation began to decrease, and by 1991 this had resulted in some limited reduction in the real exchange rate.

The main signal to the traded sector, however, was the strongly growing exchange rate, buoyed by the tight monetary policy and loose fiscal policy. This implied that the traded sector was not internationally competitive; as a result, many New Zealand manufacturers gave up domestic assembly, became importers or distributors, or went out of business entirely. The manufacturing sector decreased by a third during the reform period; some of these firms had only existed because of protection, and would probably never have become internationally competitive.

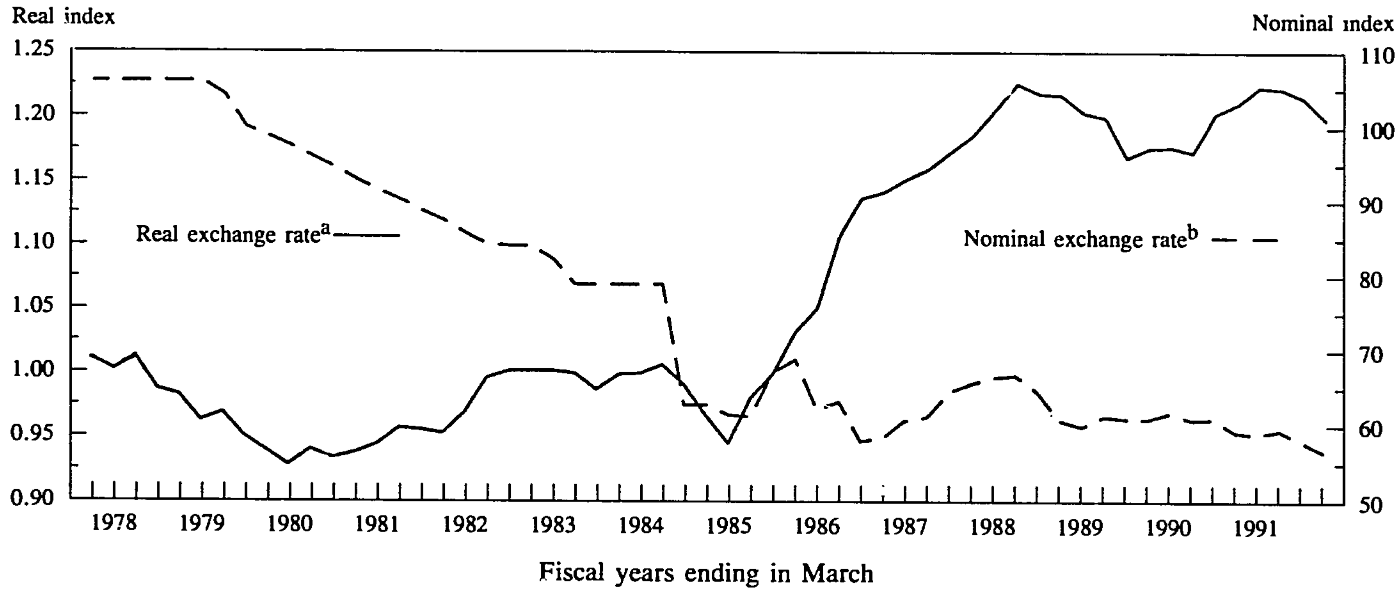
Contraction in trading conditions. As a result of the high interest and real exchange rates, together with the termination of production subsidies, the growth in domestic competition, the reduction in barriers to foreign competition, and the loss in business confidence, domestic suppliers suffered from much tighter trading conditions during the reform period.

Initially this was felt mainly by the traded sectors. Hastened by trade shocks, the 1987 stock market crash, and government sector restructuring, depressed demand conditions were then transmitted through to the nontraded sectors. Consequently, by 1988 most businesses reported that lack of demand was overwhelmingly their most important trading problem.

These stagnant trading conditions have continued throughout the adjustment period. This recession has not been very deep by historical standards but it has been extremely long, a longer period of stagnation than any since the Great Depression.

The business sector. How did the business sector respond to these pressures?[19] A series of government/New Zealand Institute of Economic

FIGURE 5 Nominal and Real Exchange Rates



a. Ratio of output prices, nontradeable/tradeable.
b. Trade-weighted index.
SOURCES: New Zealand Department of Statistics; Reserve Bank of New Zealand; New Zealand Institute of Economic Research.

Research structural surveys, covering 1985–1991, give a picture of a business sector that, on the whole, welcomed the reform program, but which underestimated the size of the shocks and its own ability to trade throughout the adjusting period.[20]

Responses of firms. There is a progression in firms' responses to structural change: in the earlier years of reform they reported improving discretionary areas such as developing new products, cutting unprofitable operations, and making new investments. There was some reduction in staff numbers and rationalization of product lines. However, it appears that many firms surveyed in 1985 had yet to feel the full impact of competition from imports and deregulation.

By 1987 more serious attempts were being made to cut costs by improving financial management, announcing layoffs and commencing corporate restructuring. The 1988 survey revealed an increasing number of firms deeply worried about falling profits and tight trading conditions. They were undergoing more intensive internal reorganization, closing plants, cutting work forces, and changing ownership or closing down. Much more attention was being given to quality and productivity, and many were trying to change their firm culture. The managers of many firms were becoming despondent about their companies' chances of survival.

By the time of the 1990 and 1991 surveys, although internal change continued, most firms believed that the overall process of structural change was nearly over. However, they also accepted that the economic environment would never return to the regulated markets of the 1970s. The New Zealand economy is now much more open to the rest of the world and to internal competition, and this means firms are more responsive to continuing changes in consumer preferences and production possibilities.

International measures of productivity show New Zealand had poor growth in both labor and total factor productivity, especially between the oil price crisis and the onset of reform.[21] It appears that productivity has increased significantly since restructuring. Labor productivity has increased at about 3 percent per annum since 1984–85, and growth has been particularly strong in those manufacturing sectors that have faced the harshest pressures to restructure, such as textiles and fabricated metals.

By 1991 most of the firms surveyed considered they had reached the end of their restructuring. The survivors are more efficient and competitive, but they also bear the scars of the process: most firms have laid off workers and are very reluctant to re-employ them, even in the event of an upturn. Similarly, most have had to mothball, sell off, or scrap capital equipment, and they are reluctant to reinvest. They recognize their trading environments have changed forever, but are still shell-shocked by the length and severity of the recession they have been through. Their business confidence has been very low for a long time and they are most cautious about the prospects for recovery.

Sectoral differences in response. The reforms, at least initially, had quite different impacts across sectors, (as can be seen in Table 6). The first to be hit was the agricultural sector, where supplementary minimum prices and financing subsidies were removed following several years of poor commodity prices. The sector immediately suffered falling incomes, with a major effect on farmers who, encouraged by the deregulated financial sector, had recently leveraged up their operations. Over the ensuing five years most of the farming sector gradually traded its way out of crisis, but a significant high-debt burden still remains: banks have found it politically very difficult to foreclose on debt on family farms, and as a result many farmers did not go through the financial restructuring process that the corporate sector was later subjected to.

Manufacturing was the other traded sector to be hit early on: this sector had been built up to a relatively large size (25 percent of employment by 1982), facilitated by decades of protection, import substitution policies, and export incentives. The manufacturing sector was clearly ripe for restructuring: under the twin pressures of increasing real exchange rates and reduced import protection, it faced contraction and closure. The industry scaled down notably—employment fell from 328,000 to 243,000 between 1986 and 1991. Some previously highly protected sectors such as clothing and footwear are now in danger of disappearing in the face of cheaper imports, while others such as consumer electronics and ceramics have already disappeared.

The growth in financial services, government sector reform, and the buoyant stock market led to a construction boom from 1984 to 1987. The world stock market crash in October 1987 was especially damaging in New Zealand: quoted companies lost more than half their value, and in the ensuing four years have never recovered. Not only has this denied the corporate sector a source of equity funds, but it put considerable pressure on property markets and signaled recession to the construction industry. From 1987 to 1990 the construction sector lost 40 percent of its work force, and many construction companies and property investment companies went out of business altogether.

By 1983, the traded sector had already experienced the worst of the competitive pressures from the high real exchange rate, but the nontraded sector was only starting to feel effects of reform. These were intensified by the fall in asset prices, government attempts to reform state-owned enterprises, efforts to reduce the government deficit, decreasing prosperity in the household sector, and, by 1990, pressures on the financial sector to cut margins.

This distinction between the responses of the traded and nontraded sectors has been shown by David Grimmond.[22] He concluded that since 1984 economic returns, growth, and investment have favored the nontraded sectors, a relative swing in resources away from the traded sectors. This in itself may reflect overshooting in resource movements between sectors in the early years of reform, resulting in a hysterisis effect from which parts of the business sector still had not recovered by 1991.

The altered conditions of competitiveness affected different industry groups in very distinct ways, depending on the import intensity of each industry, the source of its imports and the destination of its exports: these factors implied different sectoral real exchange rates. For example, in 1989 Neil Williams showed that the petroleum and chemicals sector had suffered badly from declining competitiveness, whereas the wood products sector had actually improved in competitiveness.[23]

By 1991, Pat Colgate calculated that, compared with 1985, only basic metals was more competitive on world markets (mainly due to rising international metal prices), while textiles, clothing, chemicals, petroleum, and plastics were not significantly changed.[24] However, all other sectors were significantly more competitive compared with their worst levels in late 1988.

The overall effects can be seen in Table 6, on the sector composition of GDP. From 1983–84 to 1989–90, agriculture increased its share of output, largely due to favorable price movements. Manufacturing

TABLE 6 Annual Real Growth of GDP, by Sector (percentage)

Sector	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90
Primary	-6.0	7.0	10.1	0.4	8.2	-6.1	1.8	24.3	4.8	9.7	-3.1	-0.2
Agriculture	-6.6	13.7	12.4	-1.1	5.1	-5.6	-3.0	25.3	6.6	15.4	-9.4	-4.9
Fishing & hunting	3.4	15.0	15.9	5.0	4.8	10.2	-1.0	6.3	0.0	6.9	20.2	-4.6
Forestry & logging	4.0	10.2	11.5	2.6	-0.6	2.5	3.6	3.2	-3.6	7.4	3.5	5.7
Mining & quarrying	-12.1	-27.5	-9.9	9.6	46.8	-21.5	33.7	44.2	4.0	-14.0	24.4	17.3
Manufacturing	-0.2	4.7	-1.5	8.6	0.7	2.8	10.6	-4.4	2.3	-4.2	-2.9	1.4
Food & tobacco	5.2	-3.5	6.9	2.6	6.1	0.6	4.4	-7.7	13.0	-7.7	6.4	-3.5
Textiles & leather	-2.8	15.0	-7.8	6.3	1.5	-2.6	11.3	-2.7	5.5	-7.1	-20.2	7.1
Wood products	-0.3	11.5	-2.0	12.2	-9.6	5.9	11.3	-3.1	-7.1	-1.9	-5.0	-3.2
Paper & printing	-2.4	8.7	1.5	2.1	-3.5	8.5	13.2	0.4	5.5	5.0	-7.7	5.1
Chemical products	3.5	7.4	-8.4	7.3	-3.0	7.2	14.1	-3.3	1.6	-6.1	2.0	-2.7
Mineral products	-4.8	1.0	-1.3	20.8	3.6	1.1	9.3	3.6	-0.7	-9.2	-9.1	-5.7
Basic metals	3.0	2.9	-9.5	10.9	4.6	12.1	11.1	-15.1	-2.5	5.5	36.1	17.0
Metal products & other	-4.4	5.8	-4.2	16.6	-0.1	1.4	14.3	-4.4	-6.4	-4.3	-9.8	3.9
Services	1.6	0.4	0.4	3.9	-0.4	5.0	3.5	0.9	3.1	1.3	-0.7	1.1
Electricity, gas & water	7.1	9.4	3.0	2.0	0.8	11.0	0.7	2.9	2.9	0.5	3.1	-4.9
Construction	-8.2	-8.3	-0.7	7.7	0.9	8.1	3.5	2.9	-3.3	4.2	-11.1	-0.4
Trade & hotels	0.4	1.1	-1.5	5.3	-2.4	3.1	1.4	-3.9	3.4	-1.8	-2.4	1.3

(continued on next page)

TABLE 6 (*continued*)

Sector	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90
Transport & storage	2.6	2.3	−3.1	1.4	−0.7	9.6	12.0	−3.1	2.1	−0.3	4.8	3.3
Communications	2.9	3.2	7.8	5.7	4.0	5.9	8.6	8.4	8.5	5.8	8.7	9.0
Finance & business	4.2	2.6	3.4	3.2	−0.7	9.0	6.9	6.7	8.3	6.4	0.9	1.8
Owner-occupied dwellings	2.3	1.8	1.6	1.8	2.3	2.0	2.0	2.3	2.2	1.9	1.9	2.0
Community services	4.4	1.0	1.2	4.1	−0.8	4.4	4.4	4.6	2.0	0.2	−3.0	−0.3
General government services	3.4	0.7	0.0	2.6	0.7	1.1	−0.6	−0.6	−0.2	−1.1	−1.8	−1.7
Subtotal[a]	0.6	1.8	0.7	4.7	0.6	3.5	4.9	1.5	3.1	0.9	−1.4	1.0
Total	0.2	2.6	1.3	4.9	0.4	2.9	4.9	1.1	2.6	0.5	−1.3	1.3

a. Excludes unallocated items.
SOURCE: New Zealand Department of Statistics.

diminished in relative size, particularly the textiles and metal products sectors. The finance sector and construction sectors grew significantly.

The sectoral distribution of investment contrasts sharply with this. In five years the agricultural and manufacturing sectors each more than halved their share of capital formation. Investment in capital-intensive industries such as chemicals and metal products dropped away almost to nothing. In turn, the finance and business sector increased its share of investment from 7 percent to 25 percent.

A similar, though far less marked, effect was to be seen in employment: a reduction of 34 percent in manufacturing between 1984–85 and 1989–90, with an offsetting proportional increase in employment in the finance and business services sector.

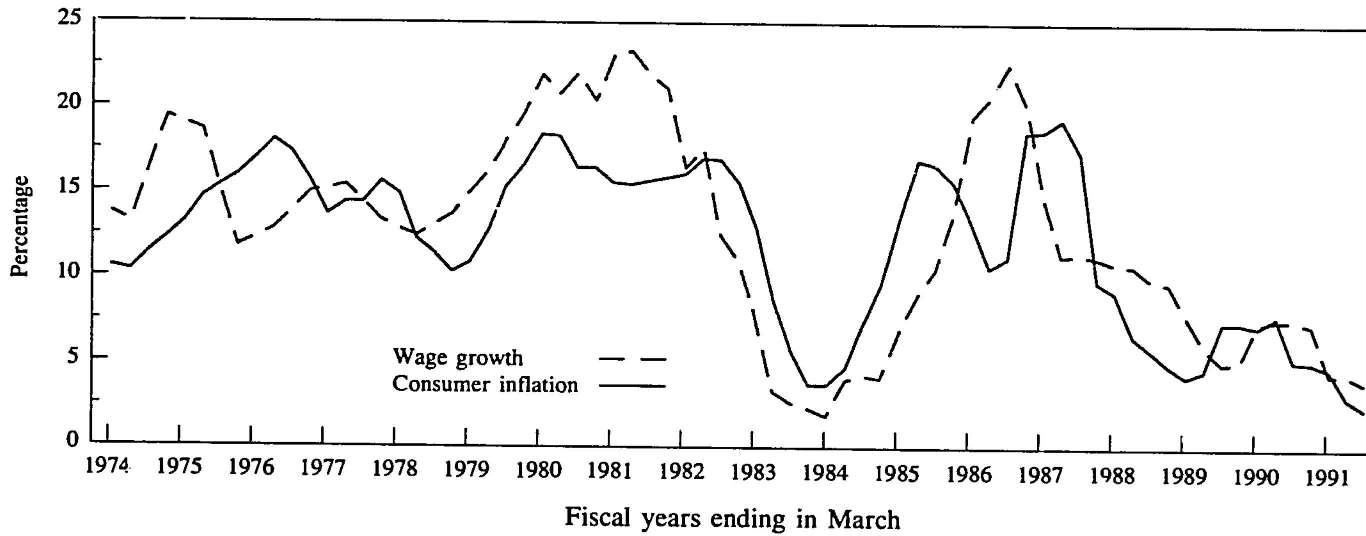
The external sector. Traditionally, New Zealand's export performance has depended on international commodity price movements, with some government interventions, principally devaluation and subsidies, seeking (generally unsuccessfully) to insulate the economy from these shocks. The 1984–1991 reforms were made with the assumption that New Zealand suffered from volatile price movements and looked to stimulate a rational production response to them, possibly by developing new products and domestic value-added processing to move away from pure commodity trade, with its volatility and its access problems.[25]

As the program of reform progressed, New Zealand exports remained fairly strong until 1990, when the terms of trade and overseas market conditions again deteriorated. This was partly compensated for by improved domestic competitiveness. In addition, the Closer Economic Relationship agreement with Australia led to a big increase in New Zealand's manufactured exports during this period.

As import protection has been removed, there has been a marked increase in import penetration. Because of very weak local trading conditions it is likely that this import penetration may not have reached its final levels by 1991. If this is the case, any economic upturn in New Zealand would suck in further imports, and the country would still appear to be suffering from an external structural imbalance.

The size of this imbalance is shown by the growing debt as shown in Figure 6. Overseas debt grew rapidly through the early period of restructuring, indicating limited ability for further debt expansion. About

FIGURE 6 Wages and Consumer Inflation



SOURCES: New Zealand Department of Statistics; New Zealand Institute of Economic Research.

60 percent of this is market sector debt (that is, private plus state-owned enterprises). The debt-servicing ratio (servicing costs as a percentage of exports) has risen to about 63 percent.[26]

The government sector. The government's reforms separated trading activities from its core accounts, moving from a "public/private split" to an "official/market" distinction.

The first step of identifying and corporatizing state trading activities was largely under way by 1988. Despite the need to lay off large numbers of workers, and despite problems in restructuring debt, the process took place relatively successfully and yielded significant efficiency gains. The intention was that corporatization would only produce an interim form of enterprise, until full privatization could be achieved. Inevitably the privatization process proved more difficult: the first sell-offs involved some technical mistakes, and later ones incurred political opposition. To date, about half the possible privatizations have been carried out.[27]

The government recognized the need to address its own core financial position, which had been in structural imbalance for many years.[28] It found this difficult during the reform program because:

- The administration of reform had put a huge burden on civil servants.
- There was an attempt to buy time for the reform program by allowing increases in social spending to proceed in the earlier years.
- The corporatization of government trading activities required further financial injections.
- The growing recession put pressure from increased social welfare payments onto the government budget.
- Demographic trends and unemployment were leading to a growing dependency ratio.
- The recession reduced household and company income, and hence the taxable income.

During the years 1984–1990, lip service was paid to the need to reduce government spending. In the event, industry assistance was cut to one-tenth its earlier levels over that period, administrative spending was tightened, and social spending continued to grow. During the 1980s, spending on health, education, housing, and social welfare (including state-funded universal retirement benefits) grew at an annual average of 15 percent, significantly faster than GDP. Debt servicing has risen even faster.

Since the end of 1990, there have been several attempts to cut government spending in social services and to continue deficit reduction. This involves radical reform of health, education, and retirement benefits. These reforms, however, will still take some years and some expenditure to achieve. The trend of deficit reduction is now established, but a balanced budget is still some years away.

In the meantime, net public sector debt (including that of state-owned enterprises) has risen to about N.Z.$48 billion. Debt servicing represents 17 percent of government spending. New Zealand's total overseas (public and private) debt has risen to N.Z.$55 billion, about 75 percent of GDP.

Fiscal deficits in some countries have been expansionary, but it has been argued that in New Zealand they had a depreciating effect on domestic currency, which was inflationary and required compensating monetary tightness.

Labor, wages, and prices. Whereas capital bore the brunt of the early restructuring pressures, by 1985 labor layoffs were becoming common and unemployment was becoming a problem. Traditionally, unemployment has been very low in New Zealand, averaging, for example, 2 percent in the 1970s. During the mid-1980s, the process of corporatization and declining competitiveness brought a wave of unemployment. During 1990–91, declining terms of trade and a stagnant economy brought a second wave. By late 1991, unemployment had risen to 11 percent; this, above all else, threatens to break the political resolve to continue the process of reform.

Faced with tight economic conditions, growing unemployment, the corporatization of state trading activities and the 1991 Employment Contracts Act, labor market adjustment has been considerable. Union membership, traditionally high in New Zealand, has now dropped considerably. In addition, wage fixing has moved from a relatively inflexible, centralized, annual process of registered awards to a much more flexible system of employer/employee bargaining, either carried out directly or through a variety of bargaining agents. In the early days of reform, wage increases continued, despite declining profitability and competitiveness. As a result of all these changes, however, annual wage growth dropped from 18 percent in 1985 to about 2 percent in 1991.

One consequence of this unemployment and wage restraint, together with reductions in government social service payments, has been to put the household sector under considerable pressure. From 1984 to 1987 asset values (especially house prices) inflated considerably and households borrowed freely on this security from the newly liberalized financial system. The 1987 stock market crash signaled an end to this borrowing and left some households badly overexposed. In addition, the tax reforms of 1987 left earners of lower incomes relatively worse off. Disposable income did not grow from 1987 to 1991, net dissaving occurred over this period, and household debt has grown. Many factors contributed to the dramatic decline in household savings.

On the question of price stability, considerable progress has been made. As shown in Figure 6, New Zealand has been plagued with 10–20 percent inflation for almost two decades. A price freeze in the pre-reform period provided temporary relief, but once freed from restraint, prices grew rapidly once more, temporarily worsened by the introduction of a value-added tax in 1986. Since that date the high exchange rate, tight monetary policy, and stagnant economic conditions have achieved near stability of prices. The consumer price index has fallen from 18 percent to 1 percent, a notable achievement.

In line with this index, there have been major reductions in producer prices. In addition, asset prices, including rural and urban property, have dropped significantly. Social spending remained high from 1984 to 1990, predicated on the belief that New Zealand could avoid facing a real income fall. Yet once domestic asset values had readjusted to world prices, it was clear the country had been consuming beyond sustainable levels for some time. Adjusting to this meant significant income changes, especially for holders of assets in protected areas (such as importing and import substitution) and government-maintained social spending.

The high nominal interest rates prevailing during the period have handicapped investment intentions and channeled funds away from the stock market. Throughout this period businesses have reported funding new investment from retained earnings rather than from debt or equities. (New Zealand's corporate ratio of saving has traditionally been among the highest in the OECD.) By 1991, nominal interest rates were at last falling, though not yet by enough to stimulate a recovery in investment. Real interest rates remain high by international standards.

The overall outcome. The composite picture painted in this section is of a traded sector hard hit by economic liberalization (with the effects gradually filtering through to the nontraded sector), a considerable contraction in production, and a torpid output response. More recently, prices have started to fall significantly, and exporters are enjoying improved competitiveness. In the domestic sector these price movements have not yet drawn out an important real sector response.

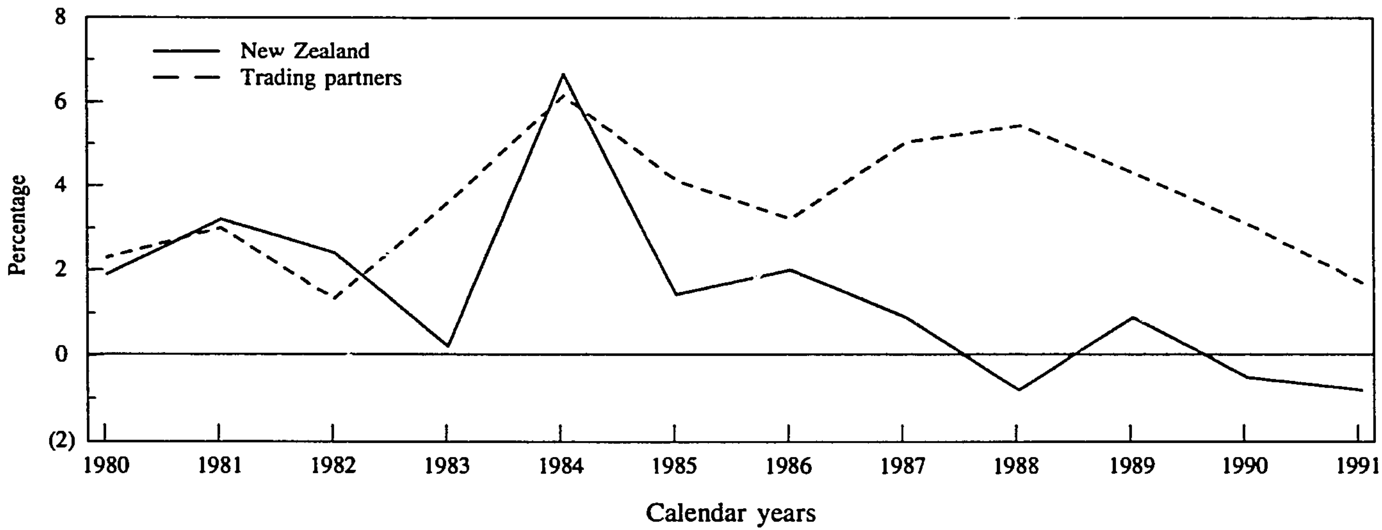
The overall outcome has been very low, and sometimes negative, growth throughout the reform process. GDP growth has averaged from 1 percent to 1.5 percent since 1984, in contrast to the growth of New Zealand's trading partners, which has averaged 4 percent, as shown in Figure 7.

The population of New Zealand has increased at an average annual rate of 1 percent during the period. This means that New Zealand has had essentially no growth in GDP per capita since reform commenced. The expectations are for an improved medium-term response. But in the meantime, these figures bear witness to high adjustment costs and a poor short-term response to the structural change program.

Reaching an Assessment and Drawing Lessons

The economic liberalization process has brought major technical efficiency improvements. These are observable and measurable at the plant level, through productivity and managerial efficiency improvements.

FIGURE 7 Growth of New Zealand and its Trading Partners



SOURCES: OECD; Internal company documents, Phillips and Drew, stockbrokers, London; New Zealand Department of Statistics.

They have not yet added up to an unequivocal economy-wide improvement in allocative efficiency. Yet over the decade of the 1990s they will ensure that New Zealand industry is considerably more competitive compared with that of its trading partners.

An important lesson here is one that also arises in other, similar, economic liberalizations, such as those that have been undertaken in Chile and Ireland.[29] This is the costliness of paying too little attention to transition paths and adjustment costs. New Zealand has been through eight years of near-zero growth per capita. This points to the size of the adjustment costs, and calls into question the big bang approach, compared with a more gradual approach. Yet in New Zealand the gradual approach had not worked in the 1970s and there was not much reason to think it would do better in the 1980s.

Perhaps the clearest lesson is the cost of restructuring without previous or at least simultaneous stabilization in the government sector. In this sense the costs of the mis-sequencing are high. The price signals now suggest New Zealand may be moving belatedly toward some balance. However, this is not yet ensured and the dangers of continued structural disequilibria remain: there is no point in having a lean and efficient productive sector when it remains crowded out by an unreformed government sector.

The process of liberalization was not originally intended to have distributive consequences, though these have, in the event, been important.[30] The biggest beneficiaries from reform have been consumers. A decade ago they faced high prices, rationing, restricted choice, low quality, and poor service from manufacturers and retailers. This has now changed markedly. Yet consumers as a group are poorly organized and there is little political recognition of the gains that have been made.

The production sector (especially the traded subsector) has borne the brunt of the adjustment costs. Owners of businesses, whether working proprietors, shareholders, or farmers, suffered falling profits and business closures in the earlier years of reform. More recently (and especially since passage of the 1991 Employment Contracts Act), labor has borne heavy costs through unemployment and real wage reductions. Traditional rent-seeking interest groups, such as manufacturers, farmers, and holders of state monopoly rights, are now clearly worse off. Over

TABLE 7 Progress of Economic Liberalization

Sector	Implicit target	Progress (by 1991)
	Stabilization effects	
Public sector		
Revenue reform	Broader base, low marginal rates	Achieved
Expenditure reform	Balanced budget	Scheduled for 1992–1994
External sector		
Price adjustment	International competitiveness	Partially complete
Production response	International competitiveness	Partially complete
Reduced country risk	Lower external debt	Not achieved
Prices		
Interest rates	International levels	Partially achieved
Consumer prices	Stability	Achieved
Wages	Restrained growth	Achieved
	Efficiency effects	
Traded sector	Internationally competitive	Achieved
Nontraded sector	Efficient	Partially achieved
Public sector	Private sector efficiency levels	Partially achieved
	Distribution effects	
Household income		
Upper-income group	Neutral	Relative gains
Lower-income groups	Neutral	Relative losses
State beneficiaries	Reduced fiscal burden	Partially achieved
Production		
Consumers	Improved purchasing power	Generally achieved
Employers/shareholders	Neutral	Relative losses
Employees	Neutral	Relative losses

NOTE: These implicit targets were rarely explicitly stated, and have been interpreted subjectively. Some targets are linked, e.g., public sector efficiency and expenditure reforms.

the medium term it is unclear how the rewards relative to capital and labor will shift—probably back toward owners of capital.

In fiscal terms, higher-income groups benefited more than others from the 1987 flattening of income tax rates. Income distribution, which has traditionally been relatively equitable in New Zealand, has become less so as a result. Government beneficiaries (receivers of retirement and unemployment benefits and other transfers from government) have generally suffered from the reforms, though to widely differing extents. Consumers of such state services as health care and housing have also suffered.

The effects of economic liberalization throughout the economy are summarized in Table 7.

There are other redistributive aspects of the reforms that are very difficult to judge without a more sophisticated analysis, in particular the question of who bore the allocation costs from the inefficiencies of the previous system. Yet it is clear that economic liberalization in New Zealand has been far from neutral in its distributional effects. Consequently there are widely varying views in New Zealand today about the success or failure of the economic reform program.

NOTES

1. See, for example, G. T. Crocombe, M. J. Enright, and M. E. Porter, *Upgrading New Zealand's Competitive Advantage* (Auckland: Oxford University Press, 1991).

2. For a historical review, see A. Bollard and R. Buckle, eds., *Economic Liberalisation in New Zealand* (Wellington: Allen and Unwin, 1987); S. Walker, ed., *Rogernomics: Reshaping New Zealand's Economy* (Wellington: Government Print Books, 1989); and D. O'Dea, *The Economy in Transition: Restructuring to 1989* (Wellington: New Zealand Planning Council, 1989).

3. There is some dispute about the precise intercountry comparisons, but it is not sufficient to change this general picture.

4. A. O. Krueger, *Economic Liberalisation Experiences—The Costs and Benefits* (Wellington: New Zealand Treasury, 1985).

5. R. Garnaut, "Analytical Issues and Historical Experience," in R. Garnaut, ed., *Economic Reform and Internationalisation: China and the Pacific Region* (Canberra: Allen and Unwin in association with the Pacific Trade and Development Conference, 1992).

6. For a discussion, see R. L. Cameron and P. J. Duignan, *Government Owned Enterprise: Theory, Performance and Efficiency* (Wellington: New Zealand Treasury, 1984).

7. Public sector crowd-out theory holds that government investment increases interest rates and makes it more costly for the private sector to invest.

8. NZ/US Educational Foundation and New Zealand Institute of Economic Research, *The Influence of American Economics on New Zealand Thinking and Policy* (Wellington: NZ/US Educational Foundation and NZIER, 1988).

9. See D. Grimmond, "New Zealand Evidence on the Relationship between Inflation Uncertainty and Output" (paper presented at the New Zealand Association of Economists Conference, Christchurch, August 1991). Grimmond argues that inflation uncertainty has been correlated with low growth in New Zealand.

10. For other accounts of the reform process, see B. Easton, ed., *The Making of Rogernomics* (Auckland: Auckland University Press, 1989); R. Sandrey and R. Reynolds, eds., *Farming without Subsidies: New Zealand's Recent Experience* (Wellington: Ministry of Agriculture and Fisheries, 1990);

R. Lattimore and L. Wallace, *Rural New Zealand: What's Next?* (Lincoln, N.Z.: Lincoln College Press, 1990); S. Walker, ed., *Reshaping New Zealand's Economy* (Wellington: GP Books for the Centre for Independent Studies, 1989); O'Dea, *Economy in Transition;* Bollard and Buckle, *Liberalisation in New Zealand;* J. Boston et al., *Reshaping the State: New Zealand's Bureaucratic Revolution* (Auckland: Oxford University Press, 1991); and G. Spencer and D. Carey, *Financial Policy Reform—The New Zealand Experience 1984-1987,* Discussion Paper G88/1 (Wellington: Reserve Bank of New Zealand, 1988).

11. For further details, see I. Duncan, R. Lattimore, and A. Bollard, *Dismantling the Barriers: Evolution of Tariff Policy in New Zealand,* Research Monograph 56 (Wellington: New Zealand Institute of Economic Research, 1991).

12. Corporatization is the reorganization of a government trading department into a limited liability company run on private sector lines (but still state owned). Privatization would be the selling of that company.

13. For further details, see A. Bollard and D. Mayes, *Corporatisation and Privatisation in New Zealand,* Working Paper 91/16 (Wellington: New Zealand Institute of Economic Research, 1991).

14. See, for example, S. Edwards, *On the Sequencing of Structural Reforms,* Working Paper 3138 (Cambridge, Mass.: National Bureau of Economic Research, 1989).

15. J. Savage and D. Mayes, *Economic Liberalisation and the Outlook for Manufacturing* (Wellington: New Zealand Institute of Economic Research, 1986).

16. This issue is discussed in depth in J. Savage and A. Bollard, eds., *Turning It Around: Closure and Revitalisation in New Zealand Industry* (Auckland: Oxford University Press, 1990).

17. See, for example, S. Chapple, *Two Studies on Pricing in New Zealand Manufacturing,* Research Paper no. 41 (Wellington: Reserve Bank of New Zealand, 1988); and R. Buckle and C. S. Meads, "How Do Firms React to Surprising Changes in Demand," *Oxford Bulletin of Economics and Statistics* (forthcoming).

18. See, for example, A. Bollard and B. Easton, eds., *Markets, Regulation and Pricing,* Research Monograph 31 (Wellington: New Zealand Institute of Economic Research, 1985).

19. For more detail on change in the agricultural business sector, see Wallace and Lattimore, *Rural New Zealand;* Sandrey and Reynolds, eds., *Farming without Subsidies;* and W. Johnston and R. Sandrey, "The Emergence of Structural Adjustments in Response to Economic Policy Reforms: New Zealand Agriculture in 1989" (paper presented at the Western Agricultural Economics Association Meeting, 1989). The manufacturing sector is discussed in L. Corbett, *Manufacturing Strategies* (Wellington: School of Business and Government Management, Victoria University of Wellington, 1991); K.-P. Kriegsmann,

S. Easton, and B. Talbot, *Manufacturing in New Zealand* (Wellington: Ord & O'Connor Grieve, 1990); and Savage and Bollard, *Turning It Around.*

20. These surveys are summarized in M. Baird, J. Savage, and A. Petherick, *Responding to Change: What Firms Say about Structural Adjustment*, Research Monograph 54 (Wellington: New Zealand Institute of Economic Research, 1990) and D. Harper and G. Malcolm, *Surveying the Change: How Firms Adjusted to the New Environment*, Research Monograph 56 (Wellington: New Zealand Institute of Economic Research, 1991).

21. For more detail on productivity effects, see A. Orr, *Productivity Trends and Cycles in New Zealand*, Research Monograph 48 (Wellington: New Zealand Institute of Economic Research, 1989) and C. Campbell, A. Bollard, and J. Savage, *Productivity and Quality in New Zealand Firms: Effects of Deregulation*, Research Monograph 46 (Wellington: New Zealand Institute of Economic Research, 1989).

22. D. Grimmond, *An Analysis of the Sectoral Effects of Disinflation on Output, Employment and Investment*, Working Paper 89/20 (Wellington: New Zealand Institute of Economic Research, 1989). See also J. Janssen, G. Scobie, and J. Gibson, "Economic Liberalisation and Intersectoral Performance in the New Zealand Economy" (paper presented at the New Zealand Association of Economists Conference, Christchurch, August 1991).

23. N. Hunn, D. Mayes, C. J. Vandersyp, and N. Williams, *Financial Deregulation and Disinflation in a Small, Open Economy: The New Zealand Experience*, Research Monograph 44 (Wellington: New Zealand Institute of Economic Research, 1989).

24. P. Colgate, "Sector Level Manufacturing Competitiveness Indices," *Quarterly Predictions* (New Zealand Institute of Economic Research) 106 (June 1991). The exercise used a producer price competitiveness index.

25. Refer to Crocombe, Enright, and Porter, *Upgrading New Zealand's Competitive Advantage.*

26. See P. Colgate, "Analysis of Overseas Debt," *Quarterly Predictions* (New Zealand Institute of Economic Research) 105 (March 1991) and D. Webber, *New Zealand's Overseas Debt: A Reassessment* (Wellington: New Zealand Planning Council, 1990).

27. For more details, see A. Bollard and I. Duncan, *Corporatisation and Privatisation in New Zealand* (Auckland: Oxford University Press, forthcoming).

28. For details, see C. J. Vandersyp, *Government Sector Reform in New Zealand 1984-91* (Wellington: New Zealand Institute of Economic Research, 1991).

29. See, for example, P. McNelis and A. Bollard, *From Financial Indulgence to Fiscal Repentance: Chile, Ireland, and New Zealand in the 1980s*, Working Paper 91/14 (Wellington: New Zealand Institute of Economic Research, 1991).

30. See Income Distribution Group, *Who Gets What? The Distribution of Income and Wealth in New Zealand* (Wellington: New Zealand Planning Council, 1990).

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