

**FOR
AGENDA**

SM/00/221
Supplement 1
Correction 1

**CONTAINS CONFIDENTIAL
INFORMATION**

October 11, 2000

To: Members of the Executive Board
From: The Secretary
Subject: **New Zealand—Selected Issues**

The following corrections have been made in SM/00/221, Supplement 1 (9/29/00):

Page 8: shading adjusted to distinguish data series

Page 25, para. 31, line 4: for “1991 and interpret” read “1991, and they interpret”

Page 26, footnote 13, line 5: footnote number deleted

Page 27, para. 38, line 2: for “did better than” read “did at least as well as or better than”

Pages 28–30: shading adjusted to distinguish data series

Page 72, footnote 31, line 1: for “the Constitution” read “the legislation”

Page 80, footnote 47, line 2: for “(footnote 42)” read “(footnote 41)”

Page 83, footnote 49, line 2: for “used as an alibi” read “be used as an alibi”

Corrected pages are attached.

Att: (10)

Other Distribution:
Department Heads

II. NEW ZEALAND'S GROWTH EXPERIENCE IN COMPARATIVE PERSPECTIVE: STYLIZED FACTS AND POLICY LESSONS¹

A. Introduction

6. Measured in terms of purchasing power parity (PPP) adjusted per capita income, New Zealand held a position slightly above the OECD average in the early 1970s—comparable to Australia, slightly below the U.S. and Canada, and far above currently high performing countries like Ireland and Finland. Around the late 1970s, New Zealand began to steadily lose ground, and by the mid-1980s, its PPP adjusted per capita income had fallen below the OECD average. A large part of the reason for the initial decline lies in the loss of preferential access for its exports, when the U.K. joined the European community in 1972 (Figure II.1).

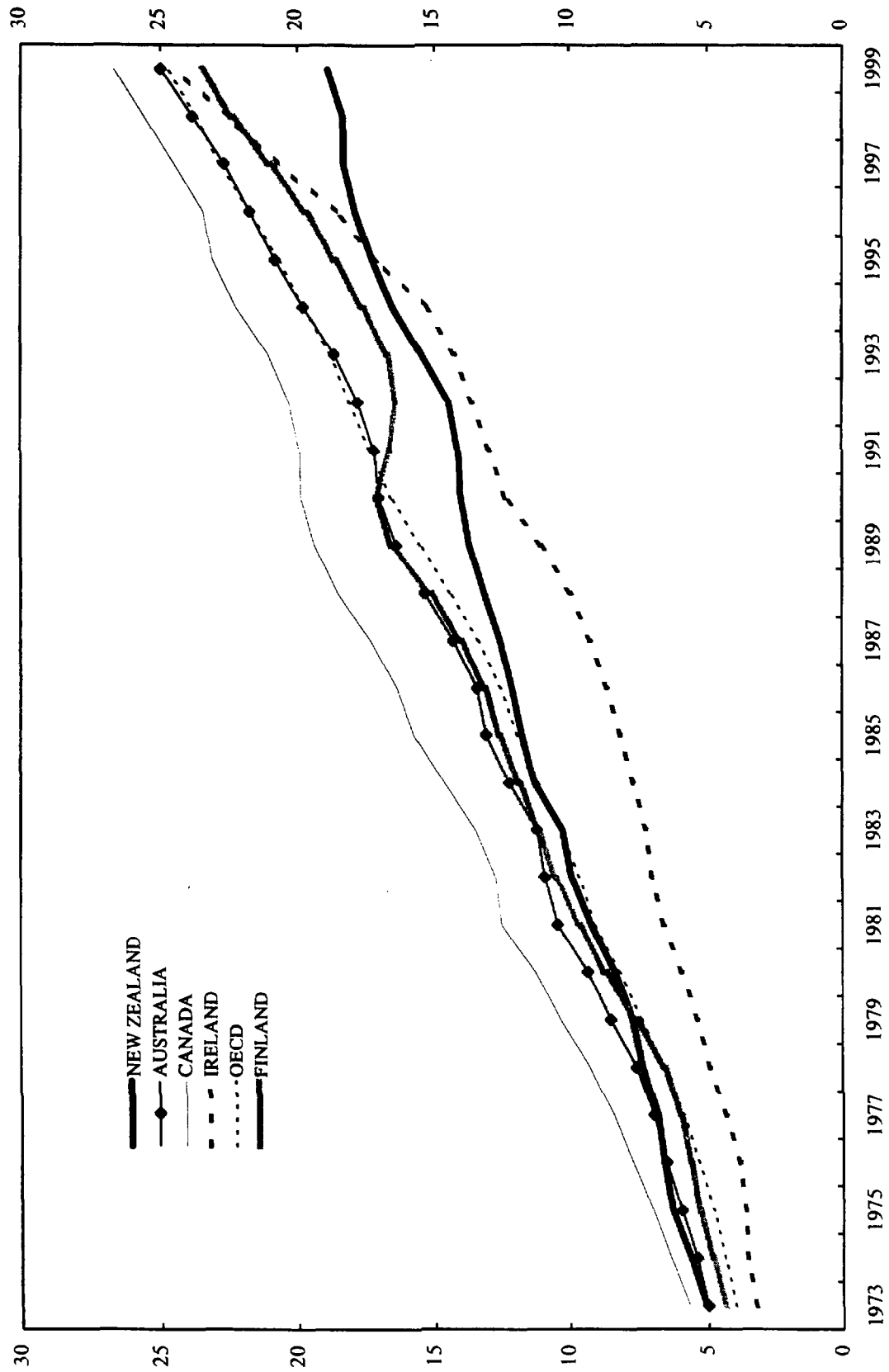
7. Also, by the mid-1980s, in part because of the failed “think big” development strategy of the period 1976–84, the New Zealand economy was faced with severe macroeconomic problems—high and variable inflation, rising public debt (gross government debt peaked at 80 percent of GDP in 1986), rising unemployment (from close to zero in the early 1970s, to 5 percent in the late 1970s and further to 7 percent in 1983) and mounting external pressures (the current account deficit had widened from 2 percent of GDP in the first half of the 1970s to 6 percent of GDP in first half of 1980s). A loss in international confidence in the economy in 1984 triggered a foreign exchange crisis.

8. It was against this background that the economic reform program in New Zealand was launched. The first reforms were the floating of the exchange rate in March 1985, and liberalization of interest rates and financial markets and the capital account of the balance of payments. These were followed by successive steps of removing distortions in and deregulating goods markets, including through trade liberalization; tax reform, including the introduction of the GST, public expenditure cuts and budget management reforms; downsizing of the public sector through an aggressive privatization program; and path-breaking reforms of the accountability and incentive structures in all parts of the public sector. Key legislative reforms in the latter area were the introduction of the Reserve Bank Act of 1989 making the Reserve Bank of New Zealand (RBNZ) operationally independent and setting the stage for inflation targeting as the monetary policy framework; and the Public Finance and Fiscal Responsibility Acts of 1989 and 1994, that provided a clear and transparent framework for fiscal policy (Box II.1).

9. The reforms have been successful in improving overall macroeconomic performance by opening the economy up to competitive pressure and market forces both domestically and

¹ Prepared by Kalpana Kochhar (ext. 38770) and Paul Wade (ext. 38994), who are available to answer questions.

Figure II. 1. New Zealand: Per Capita Income in PPP-adjusted U.S. dollars, 1973-99



Source: IMF, World Economic Outlook database.

30. Diewert and Lawrence also attempt to compare New Zealand's TFP performance with that of Australia.¹² They find that there was a sharp divergence between TFP growth in Australia and New Zealand in the 1970s, with Australia's TFP growth increasing steadily and New Zealand's TFP growth being much more volatile. Beginning in 1984, the differences in trend annual growth were considerably reduced. Excluding the poorly measured financial and community service sectors, New Zealand's TFP performance closely mirrored Australia's until 1993, but since then, Australia's TFP growth has been more rapid.

31. Another recent study (Conway and Hunt, 1998) examines New Zealand's productivity performance in relation to that of the U.S. economy using a cyclically adjusted measure of TFP through 1996. Their results indicate that the trend growth rate of TFP in New Zealand does shift upward around the end of 1991, and they interpret this as encouraging, if tentative evidence that some convergence has begun to take place between New Zealand and the technology leader, the United States.

32. **The main findings of this section can be summarized as follows:**

- *There has been a pick-up in per capita growth in New Zealand in the later part of the post-reform period suggesting "convergence" with the OECD.*
- *However, there is also tentative evidence to suggest that New Zealand may be chasing a moving target—in the last few years, this process of "convergence" may have slowed because growth in the rest of the OECD has once again accelerated.*
- *The quality of physical capital investment was low in the 1970s and 1980s, but there is some evidence of an improvement in the 1990s.*
- *There has recently been a substantial improvement in the quality of the labor force by some measures, suggesting that there is likely to be a productivity payoff in the future.*
- *However, the gap between New Zealand and other OECD countries in technical and management skills may still be large.*
- *There seems to be encouraging evidence of a pick-up in TFP growth, although, with the data available, as in the case of output, it is difficult to disentangle cyclical from structural shifts.*

¹² Because of the wide variety of estimates of TFP growth in different countries, and lack of consensus on methodology and the resulting difficulties in cross-country comparisons, this paper does not attempt to go beyond comparison of Australia and New Zealand from the Diewert and Lawrence study.

- *Moreover, as with growth, data from recent years suggests that labor productivity and TFP growth in comparator countries has begun to again outpace that of New Zealand.*

C. Policies and Their Impact on Growth and Productivity Outcomes

33. Thus far, the paper has described trends in the components of growth as identified in the neoclassical growth accounting framework—an exercise which essentially depicts what happened to growth in output and productivity and factor accumulation but says nothing about why those developments took place. There is, by now, a vast body of empirical literature examining the links between policies and growth and whether these links operate by enhancing capital accumulation or TFP or both—as hypothesized in the endogenous growth literature. This section examines how New Zealand fares with respect to policies that have been identified to be correlated with growth with a view to identifying factors which could explain both its own growth record as well as the gap in growth rates with the comparator group.

34. The literature on factors that influence growth finds that sound and stable macroeconomic policies are the necessary foundation for growth, but there is growing recognition that an economy's competitiveness and productivity growth also depends on such "micro" factors as how rapidly it can upgrade itself and move to more sophisticated ways of competing. Success in upgrading the competitiveness of an economy in turn depends on a host of factors such as openness to international trade and investment, deregulated product markets, access to smoothly functioning financial and labor markets, infrastructure quality, availability of a highly skilled labor force (including both technological and management skills),¹³ and well-functioning institutions and strong governance.

35. Where does New Zealand stand with respect to these policies? In several areas, New Zealand has made significant and impressive performance, and New Zealand has likely still not seen the full benefits of those reforms. However, in other areas, there remains an agenda of "unfinished business" that is likely to pay a significant growth dividend.

¹³ Some new work in identifying factors contributing to TFP growth points out that there is growing evidence that levels of per capita GDP, which had been converging for many years, may no longer be doing so (OECD, 2000). The main factors behind this slowing of convergence relate to differences in skills, technology and the culture of innovation—the so-called "digital divide." There is now growing evidence that productivity growth is increasingly being driven by upgrading human capital, especially through enhancing technical and management skills of the work force.

Areas in which New Zealand has achieved significant progress

Macroeconomic Stabilization

36. A major achievement of the reform process in New Zealand has been the attainment of a sustained period of macroeconomic stability—whether measured by the level and variability of inflation and interest rates, or by the level of fiscal deficits and public debt. As shown in Figures II. 4 and II. 5, New Zealand started the reform period with high and variable inflation rates, which put it in a substantially worse position than the group of comparator countries. Since the late 1980s, however, both the level and variability of inflation have been brought down dramatically, and low inflationary expectations have become entrenched.

37. Significant progress has also been made with previously persistent fiscal deficits, although the process has not been completely smooth, suggesting that the gain in fiscal policy credibility has been a relatively recent phenomenon. The initial progress in fiscal consolidation was driven by the privatization program. However, between 1988 and 1991, fiscal consolidation stalled.¹⁴ Ideological differences emerged within the government about how far to push reforms in social policy and whether to subject social expenditures to cuts similar to other expenditures. These events coincided with a stock market crash which raised questions about the economy's growth prospects, and an adverse shock to the terms of trade in 1990s. Together they resulted in a sharp fall in business confidence, which weakened growth and set off a period of fiscal weakening. The resulting deterioration in public finances was arrested in 1991/92 and the stage was set for the major progress that has been made since then. The passage of the Fiscal Responsibility Act in 1994 was clearly instrumental in this progress as it provides for an open budgetary process and much greater transparency (and therefore accountability) in both the government's intentions and achievements with respect to near—and longer—term fiscal policy.

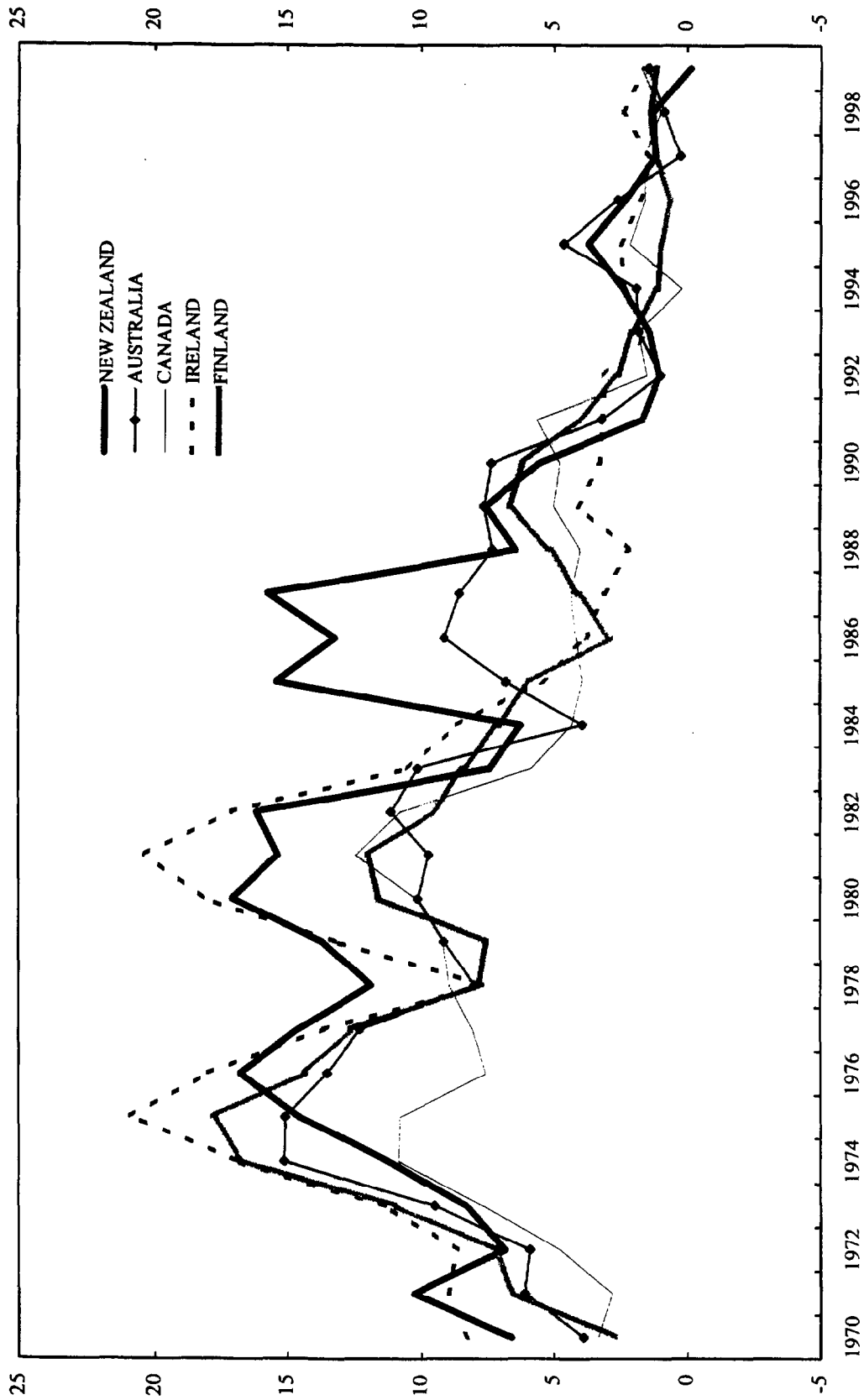
38. A comparison of the path of fiscal consolidation in New Zealand and in the comparator group suggests that New Zealand did at least as well or better than the other countries in moving its fiscal balances into surplus and making marked progress toward fiscal sustainability through a reduction in public debt (Figure II.6).

Openness to trade

39. New Zealand has also made considerable strides in other key structural areas such as opening up its economy to trade and competition and in improving its financial sector. Tariff barriers were brought down markedly and New Zealand has moved far ahead of the comparator group in many aspects of trade reform (Table II.15).

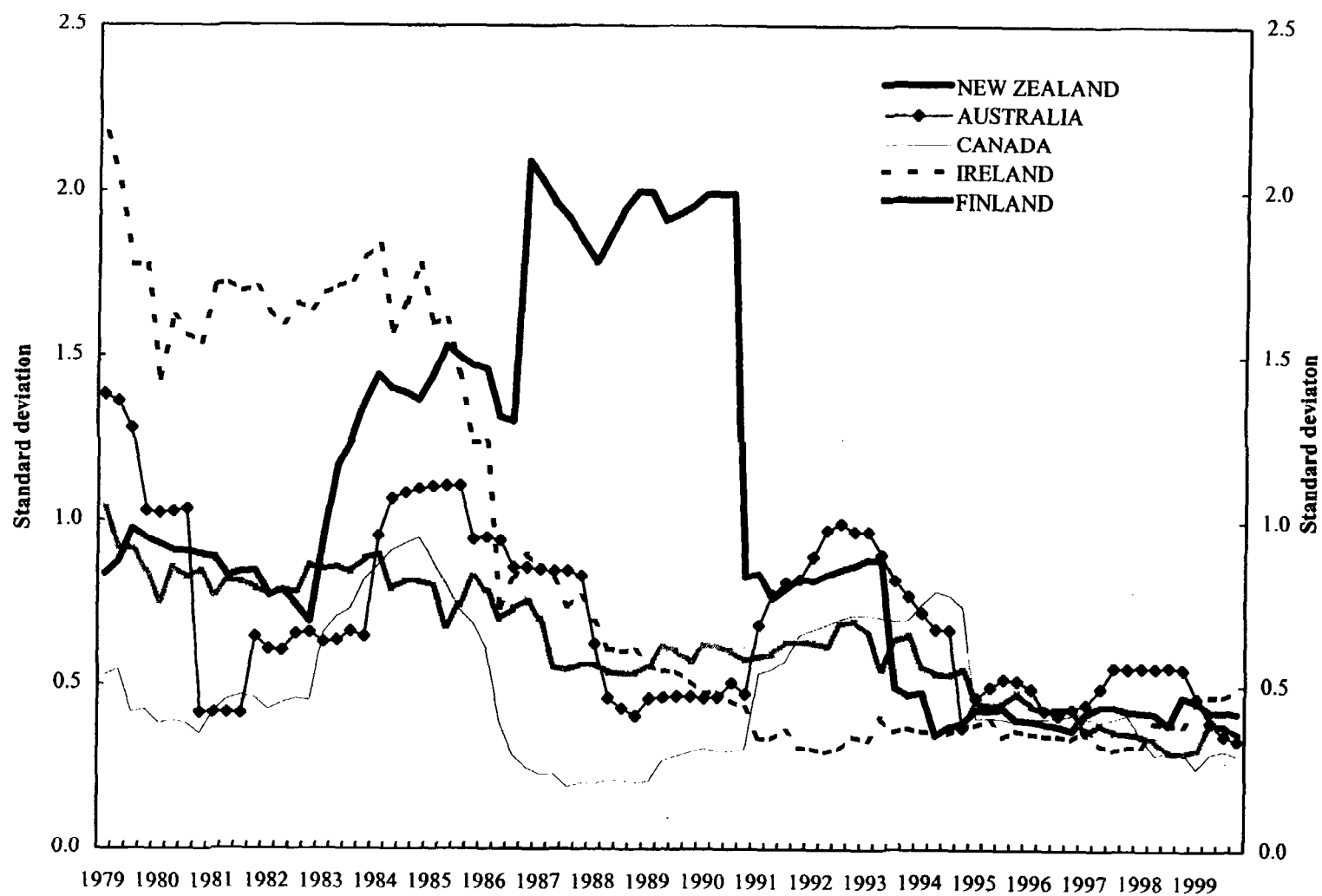
¹⁴ See Scott (1996) for a detailed discussion of government reforms in New Zealand and their economic impact.

Figure II. 4. New Zealand: Inflation Rates, 1970-99
(Period average)



Source: IMF, *International Financial Statistics*.

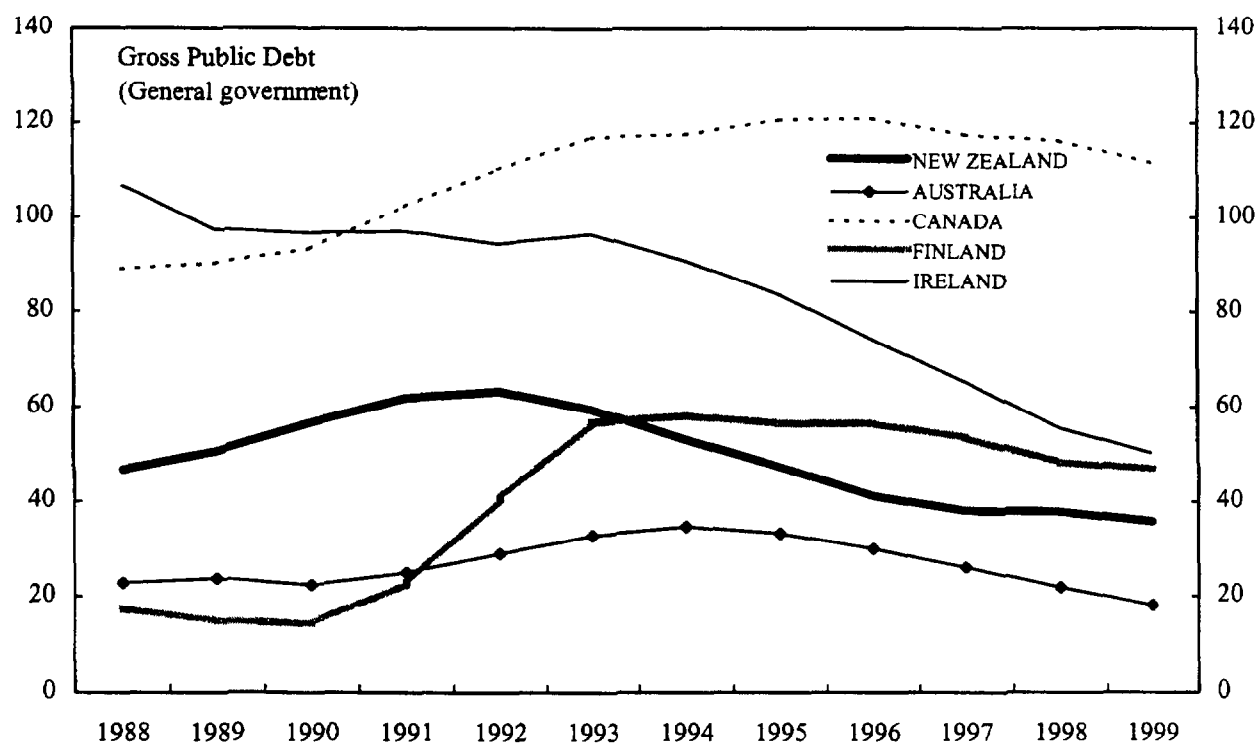
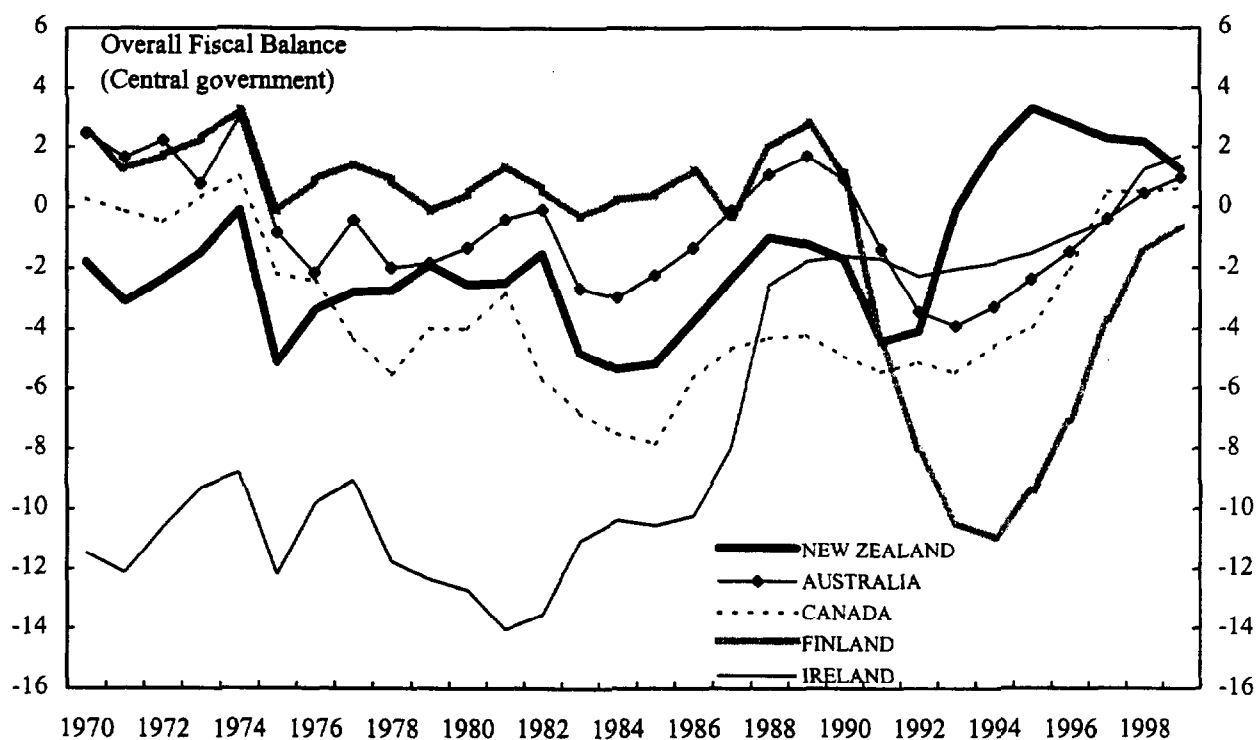
Figure II. 5. New Zealand: Variability in Inflation, 1979-99 1/



Source: IMF, International Financial Statistics; and Fund staff estimates.

1/ Defined as rolling 16-quarter standard deviation.

Figure II. 6. New Zealand: Fiscal Indicators, 1970-99
(In percent of GDP)



Source: IMF, *World Economic Outlook* database.

Terms of Reference for the Review of the Operation of Monetary Policy

The review will consider:

1. The way in which monetary policy is managed in pursuit of the inflation target. The review will examine the way the Reserve Bank interprets and applies the inflation target set out in the Policy Targets Agreement, with a view to ensuring that this approach to achieving medium-term price stability is consistent with avoiding undesirable instability in output, interest rates and the exchange rate.
2. The instruments of monetary policy. The review will assess whether the Reserve Bank has an adequate range of instruments and is using its current instruments effectively in altering monetary conditions in the desired direction.
3. The information used by the Reserve Bank in its decision making. The review will consider the range of sources, availability, type and timeliness of data, and the impact of these variables on forecasting and decision making.
4. The monetary policy decision making process. The review will consider whether the decision making process and accountability structures promote the best outcomes possible.
5. The co-ordination of monetary policy with other elements of the economic policy framework, including an evaluation of the relationship between monetary policy operations and other Reserve Bank functions such as prudential oversight of financial institutions.
6. The communication of monetary policy. The Reserve Bank's communication of monetary policy decisions will be reviewed to ensure that these decisions are explained to the public and financial markets in the simplest, clearest and most effective way possible.

97. This paper has three objectives. The first is to assess whether there is a problem of excessive economic volatility in New Zealand and, if so, how the RBNZ's operational approach to inflation targeting deals with economic volatility. The second is to examine the recent change in the PTA and analyze its implications for the conduct of monetary policy and for the accountability and transparency of the current institutional monetary policy setup. The third is to focus on an element of the forthcoming review of monetary policy conditions, namely the decision making process and the accountability structure underlying monetary policy decisions. In particular, the paper looks at the following issue: should the responsibility for monetary policy in New Zealand be shared by a committee, as in most other countries?

98. The structure of the paper is as follows: the next section briefly discusses the current institutional monetary policy framework in New Zealand and presents some data on the

volatility of output, inflation, real interest rates and the real exchange rate, before and after the adoption of inflation targeting. Section C analyzes the evolution of the inflation targeting in New Zealand toward a more flexible regime. Section D discusses a number of issues associated with the recent change in the PTA. Section E focuses on the choice between collective and individual responsibility for monetary policy. Section F contains concluding remarks.

B. Inflation Targeting in New Zealand: The Institutional Setup and an Assessment of Recent Experience

99. Although several other countries have followed New Zealand in adopting an inflation targeting framework for the conduct of monetary policy, the RBNZ differs from other central banks in two key respects:

- the exclusive objective of the RBNZ is to maintain price stability. Of all the other inflation targeters, Sweden (from 1999) is the only other case where the legislation setting out the constitutional and legal basis for the central bank make no mention of secondary objectives such as employment, growth or output (Table IV.1).³¹
- while several other countries share the same type of instrument-independence (e.g., England, Canada, and the US), in no other country does the formal responsibility of monetary policy rest solely in the hands of the governor, who can be dismissed for inadequate performance, including if the target is missed or for other breaches of the PTA.

100. Both of these aspects reflect the “managerialist” approach that inspired the comprehensive reform of the public sector that has taken place in New Zealand since the mid-1980s. They establish an employment contract between a principal (the government) and an agent (the governor of the RBNZ), with the inflation rate as the single performance measure and where incentives are shaped by the threat of dismissal of the agent if the inflation target is missed.³²

³¹ In Brazil (where an inflation targeting regime was adopted in 1999), the legislation charges the Central Bank with the main task of promoting the stability of the purchasing power of the currency but also refer to secondary objectives, such as providing the economy with adequate liquidity, maintaining the international reserves of the country at adequate levels and promoting savings mobilization at adequate levels to finance domestic investment.

³² As noted above, the contract is embodied in the PTA, which both the governor and Minister have to sign. It should be stressed that the institutional framework established by the Reserve Bank Act commit the Minister as much as the Governor to the target fixed by the PTA. Should the governor regard the proposed PTA as inconsistent with price stability he or
(continued...)

of 6–8 quarters (Drew and Orr, 1999), a much larger time span than the one initially applied (around 4 quarters).⁴⁴

119. The extension of the forecast horizon (j in the previous policy reaction function) reflected a shift in emphasis from the direct to the indirect inflationary effects of movements in the exchange rate.⁴⁵ Together with the widening of the target band in 1996 the longer forecast horizon imply that, compared to the initial approach, the RBNZ is likely to react less vigorously once the edges of the band are threatened, and to tolerate some additional short-term inflation variability while focusing on the persistent element of inflation.⁴⁶

120. The move (in 1999) from a quantity-based (official settlement balances) to an interest rate-based (the Official Cash Rate) implementation regime also goes in the direction of delivering more instrument stability. Under the old regime the main monetary policy instrument was represented by periodic statements from the RBNZ trying to maintain the exchange rate and interest rates consistent with the desired monetary stance (from 1997 this stance was identified with a desired level of the Monetary Condition Index). This created a tendency for interest rates to respond immediately to exchange rate developments, and resulted in high short-term interest rate instability. Under the new regime, the RBNZ no longer attempts to respond to day-to-day fluctuations in the exchange rate and these fluctuations have a smaller impact on short-term interest rate variability (Brookes and Hampton, 2000).

121. To sum up the discussion thus far, there is no convincing empirical evidence that the adoption of price stability as the sole objective of monetary policy and of an inflation targeting regime have exacerbated economic instability in New Zealand. To a certain extent,

⁴⁴It should be noted that the forecast horizon of 6–8 quarters is optimal not because it is the result of a loss function minimization problem, but rather because it efficiently exploits the convexity of the trade-off (*“it is evident that as the policy horizon is extended much beyond the 6–8 quarters not much is to be gained in terms of reduced output and instrument volatility, while inflation volatility increases quite markedly,”* Drew and Orr, 1999). This is the same result obtained by Batini and Haldane in the context of the UK (1999).

⁴⁵ The higher emphasis on the indirect inflationary impact (via the aggregate demand) of movements in the exchange rate partly reveals the intention of smoothing interest rates responses to these movements, and partly reflects recent evidence that the direct impact of changes of the exchange rates on tradable prices has become more muted (Orr, Scott and White, 1998).

⁴⁶ To quote the Deputy governor Sherwin again, *“the upshot has been a shift in emphasis away from avoiding a breach of the target at all costs and toward a firmer focus on having inflation always reverting to somewhere near the mid point of the target range in the medium term”* (Sherwin, 1999).

economic volatility is the unavoidable consequence of the small, open nature of New Zealand's economy. Moreover, consistent with the view that inflation targeting does not preclude significant attention to conventional stabilization objectives, the RBNZ has progressively changed its approach to inflation targeting in a way that should imply less output and instrument instability.

D. The New PTA

122. As noted above, the new PTA directs the RBNZ to seek to avoid unnecessary instability in output, interest rate and the exchange rate in the pursuit of its price stability objective. This section asks a series of questions in relation to this change, such as: does the new PTA really help in improving the conduct of monetary policy? The answer to this question depends on the existence of a trade-off between the short run variability of interest rates and of output. In case such a trade-off exists, is there an inherent inconsistency in the PTA? Does the new PTA have any implications for accountability and transparency of monetary policy?

Is short term interest rate smoothing consistent with low economic variability?

123. One way of looking at the new PTA is that it merely formalizes what the RBNZ is already doing in terms of the choice of the parameters of the policy reaction function [1] that is, the feedback and policy horizons (the parameters θ and j , respectively) and the degree of interest rate smoothing (γ).⁴⁷

124. However, even if they allow a better understanding of central banks behavior, policy reaction functions are unlikely to drive day-to-day monetary policy making. The identification of the optimal values of the parameters is too sensitive to the model of the economy and to the nature of shocks to ease the task of policy makers. In other words, the uncertainty surrounding monetary policy is such that it is often difficult to exploit the volatility frontier, as it is unclear where the economy is located at the time of decision and how it will evolve in the future.

⁴⁷ The reference to "*unnecessary instability*" may not appear that unusual, *prima facie*. For example, the letter of intent between the Chancellor and the Bank of England (footnote 41) mentions the possibility of "*undesirable volatility in output*" in the context of shocks and disturbances. In this sense, it plays the same role of the caveats identified in the "Unusual Events" subsection of the PTA. The latest PTA, however, includes the clause concerning the unnecessary instability in output, interest rates and the exchange rate in the subsection entitled "Implementation and Accountability". The need to make explicit the concern for such volatility not only in the context of the caveats suggests that the new clause goes somewhat further than what may already have been implicit in the conduct of monetary policy.

132. The system of “checks and balances” set up by the Reserve Bank Act and, especially, the high degree of transparency that must be given to any conflict between the RBNZ and the political principal, strongly mitigates the risk that the new clause will be used to unduly politicize the implementation of monetary policy. At the same time, even if the costs (in terms of loss of monetary policy credibility, higher inflation, larger risk premium on foreign debt etc.) implied by such a conflict are so high to make it unlikely to occur, any perceived attempt to affect the instrument–independence of the RBNZ may damage the credibility of its policy and, therefore, its ability to influence inflation expectations.

133. All in all, while the new clause in the PTA is not expected to alter the current RBNZ *modus operandi*, it is difficult to consider it as a completely neutral and irrelevant addition. As discussed above, it is not impossible to envisage scenarios in which the introduction of the new clause might end up exposing monetary policy to tensions from which it was previously immune. In order to contain these risks the RBNZ needs, first, an additional investment in clarity of the communication of monetary policy decisions and, second, to make sure that the system of “checks and balances” is internally consistent and effective.

134. As for the transparency of monetary policy, the RBNZ is known to be one of the most transparent central banks of the world (Table IV.1). However, as shown by the debate over the degree of economic stabilization that is implicit in its approach to inflation targeting, the main communication challenge for the RBNZ is to make monetary policy “clear” in the sense specified by Winkler (2000). This amounts to establish a coherent frame of reasoning through which every individual can interpret the subset of relevant information in the same way as everybody else, an objective that is not automatically achieved by making the maximum amount of information available (Issing, 1999).⁴⁹

135. As for the system of “checks and balances” a possible step in the direction of efficiency and internal consistency would be to remove the governor from the membership to the Board of Directors (the body which assesses his performance). Indeed, the governor himself has signaled in the past that there is some “awkwardness” because he is both the chief executive and the chairman of the board that reviews his performance.⁵⁰

⁴⁹ It should be stressed here that the objective difficulty in making monetary policy “clear” should not be used as an alibi to maintain a larger degree of secrecy. As pointed out by Winkler (2000), recognizing the “limits” of transparency makes the task of being transparent not less desirable, only much harder.

⁵⁰ In practice, although the governor chairs the Board’s meetings, the Board has delegated the responsibility for the formal monitoring and evaluation of the governor’s performance to the non executive directors committee of the Board. Thus, the proposed change would bring the *de jure* framework to assess the governor in line with the *de facto* institutional setup.

E. Accountability: Collective or Individual?

136. This section turns to what is likely to be a key element in the forthcoming review of monetary policy operations, namely the issue of decision making process and the accountability structure. In particular, the following question is addressed: if consideration has to be given to moving to a collective decision-making structure, what are the issues at stake in the formal delegation of monetary policy to a committee?⁵¹

137. Under the “managerialist” approach, the main arguments for centering monetary policy accountability on the sole figure of the governor are:

- the operational complexity associated with any attempt to maintain such individual accountability within a committee. If one admits that individual accountability cannot be reduced to the mere act of voting, distinguishing individual responsibilities would require very detailed minutes and, in principle, individual forecasts (Issing, 1999).⁵²
- the risk that providing individual incentives within a committee may jeopardize the effectiveness of collective decision-making, because free-riding and, in general, strategic behaviors can dilute individual incentives within a committee.⁵³

⁵¹ According to the JPMorgan’s “*Guide to Central Bank Watching*,” out of the 39 countries considered, only in New Zealand and Norway is monetary policy decision-making formally in the sole hands of the governor. In the case of Norway, however, the central bank is not even instrument-independent as it has to consult with the government on interest rate changes (the Reserve Bank follows an implicit inflation targeting), so the governor is responsible for the day-to-day management of monetary policy. His performance in this task is monitored by an independent body, the Supervisory Council, whose 15 members are elected by the Parliament.

⁵² This point is also raised by a member of the Bank of England Monetary Policy Committee (MPC), John Vickers, who entertains the possibility of a tension between individual accountability of MPC members and the apparently collective nature of the published forecasts by asking “*how is individual freedom in voting consistent with collective ownership of the means of projections?*” (Vickers, 1999).

⁵³ As RBNZ governor Don Brash puts it: “*I think you may get people who are very aware of their reputation, either currently or historically, who start playing to the gallery*”. However, comparing monetary policy made by a committee and by a single individual within a reputation-building model, Sibert (1999) shows that the strategic interaction among the members of a committee could ultimately work both ways and the inflation outcome ultimately depends on the degree of patience of policy-makers.