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Policy implications of the March 1997 *Economic Projections*

Despite firm monetary policy, inflation has proven resilient in New Zealand, and has been too high for too long. However, the accumulated pressure of monetary policy will ultimately have the desired effect. The Bank's previous projections suggested that inflation would shortly start to fall and then decline quite rapidly. While the Bank still expects inflation to decline, that decline is less sharp in the immediate future, and is no longer expected to be sustained throughout our projection period.

Over the coming year, the principal downward influence on inflation is the substantial appreciation of the exchange rate that has already occurred. However, the unexpectedly muted impact of that exchange rate appreciation on inflation in the recent past, and the continued buoyancy of inflation in the non-traded sectors (particularly housing and government and related charges), suggest a cautious approach to policy setting is appropriate at this stage. Accordingly, we propose to continue operating policy towards an overall level of monetary conditions which is unchanged from that announced on 17 December 1996. We expect to maintain this stance until we can be confident that, after an easing, inflation would still turn down towards the middle of the target range in a clear and sustained manner.

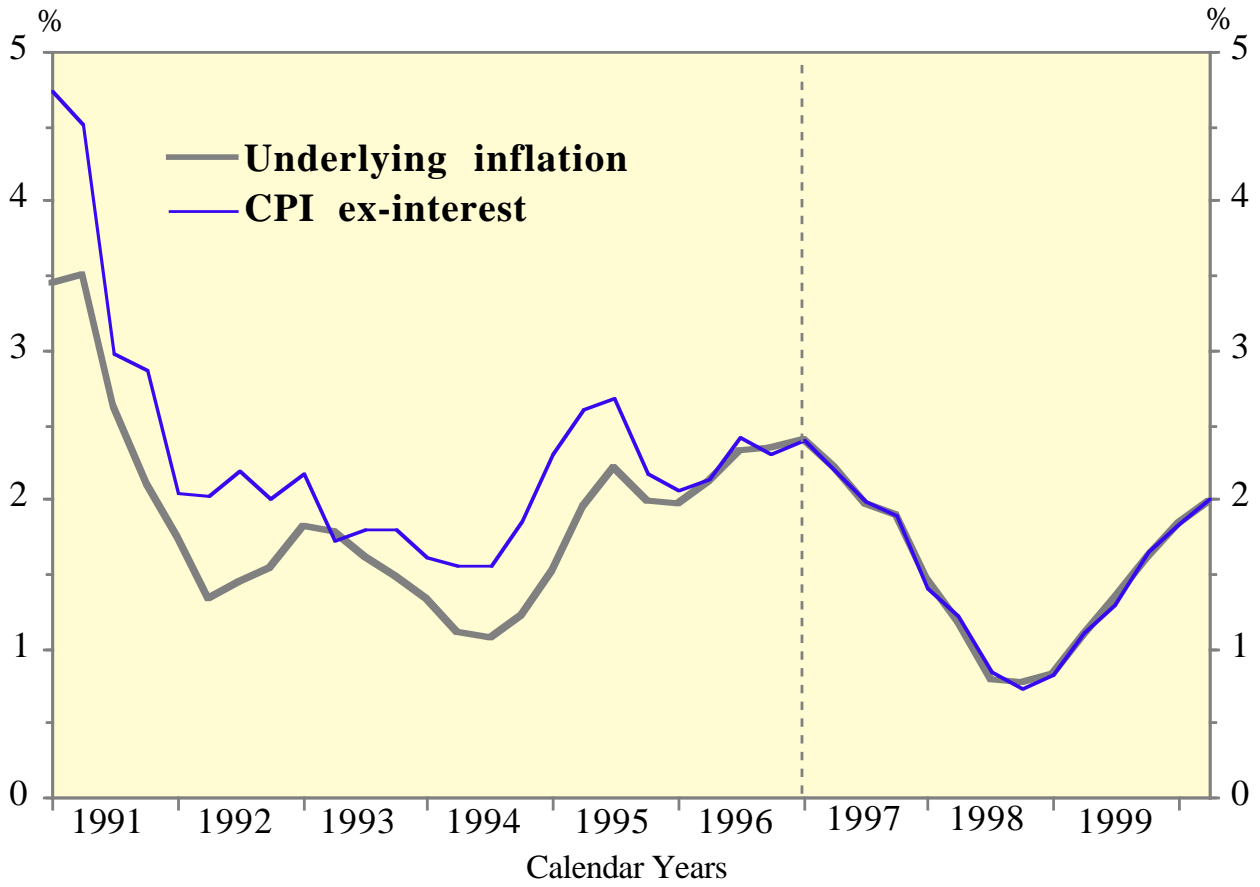
In arriving at this position, we are conscious that some parts of the economy are under very considerable pressure at present. That applies particularly to those parts of the rural sector which have also experienced a substantial fall in international prices. Nevertheless, despite those pressures, balance sheet positions generally are healthy. Moreover, consumer and business confidence surveys do not indicate that the economy is likely to fall away. In these circumstances, there appears to be little prospect of inflation falling below the bottom of the target range.

The tax cuts implemented last July are underpinning demand. The package of fiscal measures already announced by the Coalition Government and scheduled to take effect over the next few years will further sustain and add to economic activity. Since it is unlikely that any significant spare capacity will emerge over the next two years, the forthcoming fiscal expansion contributes importantly to the projected rise in inflation in late 1998 and 1999. The Government will need to be mindful of these inflationary consequences in setting its fiscal strategies. This becomes particularly important if, as assumed in these projections, there is no compulsory savings scheme to offset the fiscal stimulus currently planned for 1998/99.

The projections assume 90 day bill rates of 7.5 percent and a TWI of 68 throughout the period. These conditions are broadly unchanged from the desired monetary conditions announced on 17 December 1996. (For clarity, the desired monetary conditions announced on 17 December were based on the December 1996 *Monetary Policy Statement*, but updated to take account of subsequent information on the Coalition Agreement and import prices.) The Bank continues to apply a rough rule of thumb that equates the impact on future inflationary pressures of a 100 basis point movement in interest rates on 90 day bills with an offsetting 2 percentage point movement in the TWI. We will be comfortable with movements in the key monetary indicators that are broadly consistent with such a trade-off.

Donald T Brash
Governor

Figure 1
Consumer price inflation
(Annual percentage changes)



Summary of Economic Projections

(Percentage changes of annual totals or averages)

March Years	Actuals		Projections			
	1995	1996	1997	1998	1999	2000
Real Expenditures on GDP						
Final Consumption Expenditure						
- Private	5.7	4.1	3.5	2.4	3.8	2.9
(March qtr to March qtr)	(6.0)	(4.6)	(1.4)	(3.4)	(4.0)	(2.0)
- Public Authority	-1.5	1.5	5.7	1.2	7.0	-1.9
Total	4.2	3.6	3.9	2.1	4.5	1.9
Gross Fixed Capital Formation						
- Market Sector						
- Residential	12.1	-0.7	-1.2	2.7	1.8	0.8
- Business	17.1	11.5	3.9	4.6	8.6	5.7
(Business excluding Computers)	(14.0)	(9.7)	(2.7)	(3.6)	(7.3)	(3.9)
- Non-Market Government Sector	16.8	3.7	9.2	18.5	-2.1	1.9
Total	15.8	7.8	3.2	5.5	6.0	4.3
(Total excluding Computers)	(13.6)	(6.3)	(2.2)	(4.7)	(4.8)	(2.8)
Final Domestic Expenditure	6.4	4.4	3.8	2.8	4.8	2.4
Stockbuilding ¹	-0.4	-0.3	-0.6	0.5	0.2	-0.1
Gross National Expenditure	5.8	4.1	3.2	3.3	4.9	2.3
(GNE excluding Computers)	5.4	3.7	3.0	3.2	4.7	1.9
Exports of Goods and Services	8.5	1.5	4.7	2.8	3.3	4.3
Imports of Goods and Services	14.0	6.3	8.6	4.4	6.5	2.6
(Imports excluding Computers)	(12.6)	(5.2)	(8.3)	(3.9)	(5.8)	(1.5)
GDP (PRODUCTION BASED)	5.3	3.0	2.0	2.7	3.9	2.8
(GDP March qtr to March qtr)	(4.4)	(2.7)	(1.8)	(3.2)	(3.9)	(2.2)
Government Accounts²						
Operating Balance (\$m.)	2,695	3,314	1,870	1,840	1,680	2,380
- (% of Nominal GDP)	(3.1)	(3.6)	(2.0)	(1.9)	(1.6)	(2.2)
External Accounts						
BOP Current Account Balance (\$m.)	-3,310	-3,657	-5,467	-5,359	-6,167	-6,040
- (% of Nominal GDP)	(-3.9)	(-4.0)	(-5.8)	(-5.5)	(-5.9)	(-5.6)
Terms of Trade	-0.1	-1.1	-2.7	2.7	1.5	0.6
Incomes						
Real Household Disposable Incomes	3.0	4.2	2.8	3.3	5.4	2.7
Household Savings Rate (level) ³	1.1	1.4	0.8	1.8	3.3	3.1
Inflation⁴						
Consumer Price Inflation	4.0	2.2	2.2	1.1	1.0	1.8
Underlying Inflation	1.9	2.1	2.2	1.2	1.1	2.0
Labour Market						
Employment (000's)	1,608	1,671	1,697	1,721	1,766	1,775
Change in Employment ⁴	5.0	3.9	1.6	1.4	2.6	0.5
Official Unemployment (000's)	120	116	120	122	107	112
Official Unemployment Rate (%) ⁵	6.6	6.2	6.3	6.3	5.5	5.7

¹ Percentage point contribution to growth rate of GDP.

² June years.

³ Frequent significant revisions to historical savings rate figures indicate a high margin of error around the level of this series.

⁴ March quarter to March quarter percentage changes.

⁵ Seasonally adjusted March quarter rate.

Box 1: Key policy assumptions

The key macroeconomic policy assumptions underlying the Bank's projections are set out below. The implications of the risks surrounding these assumptions are discussed in Section 10 of this document.

Monetary policy

In these projections we make the technical assumption that the trade-weighted nominal exchange rate (TWI) will remain constant at 68.0 over the entire period covered by the projection (compared with the assumption of 66.5 made in the December 1996 *Monetary Policy Statement*).¹ Trading-partner inflation is assumed to average 2.6 percent per annum over the next three years. Given the comparatively lower profile for domestic inflation, our assumption implies a gradual depreciation of the real exchange rate over the period covered by the projections.²

Domestic long-term interest rates are generally assumed to move in line with international interest rates, with some allowance made for conditions specific to New Zealand. The 90 day bank bill rate is assumed to remain at around 7.5 percent over the entire period covered by the projections (compared with the assumption of 9.0 percent made in the *Statement*).

Our combined interest rate and exchange rate assumptions imply slightly easier monetary conditions over the period than the technical assumptions embodied in the *Statement*. However, the assumed level of monetary conditions is effectively unchanged to that described by the Bank as being appropriate in the news release that accompanied the *Statement*.

Fiscal policy

The Bank's projections assume that the fiscal policy stance will remain consistent with that outlined in the *December Economic and Fiscal Update*, adjusted to reflect the fiscal parameters outlined in Schedule B of the Coalition Agreement.³ The projections do not incorporate the new fiscal information contained in the *Budget Policy Statement*, published on 4 March 1997. As usual, the Bank's fiscal projections differ from those of the Government to the extent that the macroeconomic outlook projected by the Bank differs from that underlying the Government's projections.

¹ We take as our starting point the levels of the 90 day interest rate and TWI broadly prevailing at the time the projections process started and project them as being unchanged over the whole period.

² We continue to assume an exchange rate pass-through coefficient of approximately 0.3 (that is, a 1.0 percent appreciation in the exchange rate will result in approximately a 0.3 percent fall in consumer prices).

³ For the first time we have had to decide how to allow for the referendum on compulsory savings, scheduled for September 1997. We have assumed that the status quo prevails. Thus, the tax cut in the Coalition Agreement that is assumed to occur in 1999/2000 is not incorporated in these projections (this tax cut is linked to the successful introduction of a compulsory savings scheme).

Overview

This document updates and extends the projections discussed in the December 1996 Monetary Policy Statement. The projection of economic activity and inflation extends over the period to March 2000. The summary table details the key aggregates discussed in this document. The projections incorporate information available up to Thursday 27 February 1997. The text was finalised on Thursday 6 March 1997.

The projections are strictly conditional on a number of assumptions regarding, inter alia, the exchange rate, interest rates, the stance of fiscal policy, and world economic activity and inflation. To the extent that the actual paths of these and other variables differ from those that we have assumed, the outlook for the real economy and inflation is likely to be different from that presented here. The key policy assumptions are specified in Box 1.

The inflation outlook

Inflation is projected to decline in 1997 but pick up again later on.

Inflation is expected to decline rapidly during 1997 and 1998 as the effects of past rises in the exchange rate feed through into prices and as the pressures from excess demand subside. Thus, we project the annual inflation rate (both headline and underlying) to fall to just below 1 percent by the middle of 1998. However, this fall is likely to be short-lived if there is a substantial boost to demand from fiscal policy as planned in 1998/99 and there are no offsetting events. In these projections, inflation rises in 1999 as the assumed fiscal stimulus raises demand above the long-run sustainable path.

In view of the referendum on compulsory saving in September this year, the parameters of fiscal policy over the second half of the projection period may change quite significantly from those incorporated in this projection. The particular track shown does, however, illustrate the factors that will have to be borne in mind in formulating both fiscal and monetary policy over the period ahead.

The inflation profile is markedly different from our December projection.

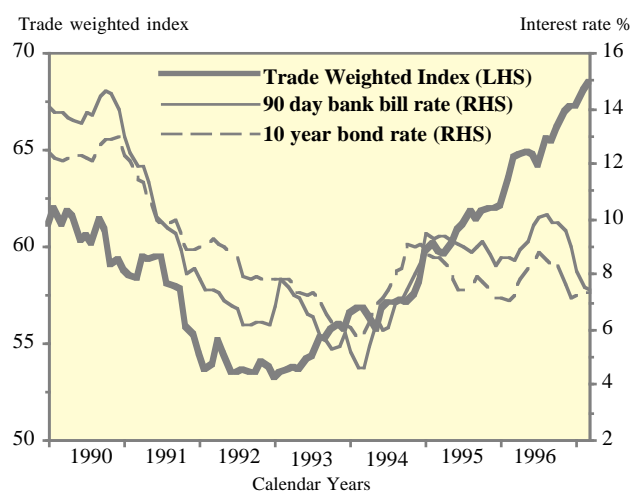
The profile for inflation is markedly different from that projected in the December 1996 *Monetary Policy Statement* in three respects.

First, the latter part of the projection period is affected by the more expansionary fiscal policy stance announced by the new Government after the December projections had been completed.

Second, in the more immediate future, the downward contribution to inflation from the expected fall in the domestic price of imported goods is now somewhat less than previously projected. This revision is due to the information contained in the September 1996 Overseas Trade Indices - both import and export prices were much stronger than expected. Consequently, we have lengthened the lags with which the appreciation of the nominal exchange rate is assumed to be passed through into consumer prices.

Finally, the mix of monetary conditions has changed markedly over the last three months. Conditions prevailing when the December *Statement* was compiled were, approximately, a 90 day interest rate of 9 percent and a TWI of 66.5. The values prevailing when these *Projections* were compiled - a 90 day rate of 7.5 percent and a TWI of 68 - are 150 basis points and just over 2 percent different, respectively. Given the lower interest rates assumed in these *Projections*, the contribution of house prices to the reduction in inflation is much more muted than we previously suggested. On the other hand the direct price effect of the pass-through from the change in TWI alone would be to lower the CPI by about 0.6 percent compared with the December *Statement*.

Figure 2
Nominal monetary conditions



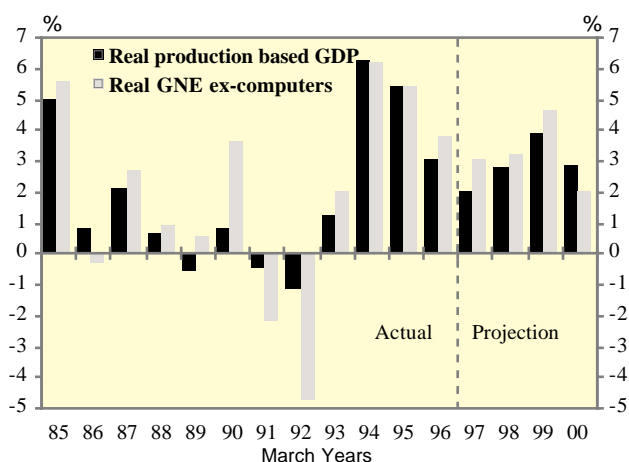
Partially offsetting the direct exchange rate effects, lower real interest rates put increased pressures on house prices, and hence the construction cost element in the CPI. Construction costs are expected to rise by 12 percent in the two years to March 1999, compared with the projected rise of 4 percent over the same period embodied in the December *Statement*. Even so, increases in construction costs at these rates are considerably lower than the increases experienced during 1994 to 1996. Therefore, inflationary pressures from housing are still expected to be lower than they have been in recent times.

The real economy outlook

Aggregate demand appears to have troughed during the second half of 1996.

Current indications are that the economy has passed the low point of the economic cycle and has achieved the 'soft landing' that the Bank and others had predicted. The growth rate has troughed at around 2 percent in annual terms. This is only a little below the sustainable long-run rate (estimated to be in the order of 2.75 percent per annum). We see growth increasing to 3 percent over the coming year and reaching nearly 4 percent by the beginning of 1999.

Figure 3
Gross National Expenditure & Gross Domestic Product
(Annual average percentage changes)



As the economy has been above its sustainable path over most of the last three years, the slowing in growth over the cycle is not likely to have generated any

significant margin of spare capacity in the economy. This has two consequences. First, there is relatively limited downward pressure on inflation from this source. Second, a relatively small pick-up in demand from this level could cause inflationary pressures to re-emerge.

The assumed more expansionary fiscal policy stance fuels aggregate demand as 1999 progresses.

The large scale of the Government's fiscal initiatives - amounting to around 5 percent of GDP over the projection horizon - means that they dominate the picture for the path of the economy. In the current year, real disposable household income has been directly increased by the tax cuts implemented in July 1996. Increased public spending, combined with a further tax cut in 1998, will further raise real household disposable incomes over the projection period.

Much of this will feed through into household consumption, which is projected to rise by around 2.5 percent in real terms in the year to March 1998 and by around 4 percent in the following year. However, we expect that households will also take this opportunity to increase their saving. The household savings rate is currently around 1 percent and we see this rising to 3 percent over the period. This outlook could change if a compulsory saving scheme was implemented following the September referendum.

Pressure on the tradeables sector is assumed not to increase.

Our technical assumption of a constant nominal trade-weighted exchange rate implies that pressures on exporters will continue for some time, as the real exchange rate declines only slowly. We expect export volumes to increase roughly in line with GDP, principally because of growth in our main markets. Nevertheless, we project the net influence of the tradeables sector on GDP growth to be negative, as imports continue to grow somewhat faster than exports. This contributes to a continuation of deficits on the current account of the balance of payments, in the order of 5.5 to 6 percent of GDP.

Investment will generate some cyclical pattern in the economy.

Cycles in capital formation, particularly stockbuilding, are often a major contributor to the aggregate cyclical behaviour observed in the economy. In the current cycle, which has been characterised by a 'soft landing', the cyclical profile has been more muted than in the past. Business investment has continued to rise in real

terms, even after allowing for the measurement problems associated with computers. Firms have tended to 'see through' the cycle, anticipating renewed profitability and taking the opportunity to invest in efficiency-enhancing, rather than capacity-enhancing, plant and equipment. As the recovery gathers pace, we expect that firms will respond and business investment will pick up noticeably in 1998. With regard to stockbuilding, improved stock management techniques, together with greater flexibility in determining production levels, means that firms have been able to respond more quickly to prevent stock levels rising excessively.

Risk assessment

While the balance of 'risks' for inflation in this *Projection* over the period as a whole is largely neutral, there are several substantial sources of uncertainty. The most significant uncertainties are discussed below.

Fiscal policy will influence the path of inflationary pressures and the stance of monetary policy.

A major risk further ahead, but currently outside the Bank's policy horizon, comes from the uncertainties surrounding the stance of fiscal policy. The Government has set limits to the size of its fiscal package over the coming three years but the effect on inflation will depend upon the composition and timing of the package. In the projections shown here, inflation is on a clear upward track by 1999/2000. If inflation were to continue to gather upward momentum, monetary policy would need to be somewhat firmer than assumed so as to keep inflation in the middle part of the Bank's target range. Clearly, if the size of the fiscal stimulus was to exceed that assumed here, the magnitude of the mon-

etary policy response required to maintain price stability would be correspondingly larger.

The extent of downward pressure from falling import prices is uncertain.

Over the short-term, the major source of downward pressure on inflation is projected to come from the accumulated increase in the nominal exchange rate. That increase should feed through into the CPI in the form of lower prices for imported goods and services. However, as this appreciation in the exchange rate has taken place, there has been a persistent tendency for some of the decline in costs to be captured and not passed through to consumer prices. Some of that capture occurs in the exporting countries by producers and distributors, but some also lies in the production and distribution chains in New Zealand. There is some risk that this behaviour may be sustained, particularly if excess demand pressures re-emerge.

The current account deficit represents a significant source of risk.

It is not clear what the equilibrium external balance is but it is unlikely that current account deficits of the magnitude projected will be sustained. If that is the case, at some stage there will be a downward adjustment in the real exchange rate so as to achieve a smaller current account deficit. If the adjustment occurs as a result of a fall in the nominal exchange rate, interest rates would be likely to rise, encouraging net saving and hence altering sectoral balances over the short- to medium-term. While a rebalancing of monetary conditions between the real exchange rate and real interest rate should, by definition, have no net impact on inflation two years ahead, the path of inflation could differ in the short run.

1. Consumption

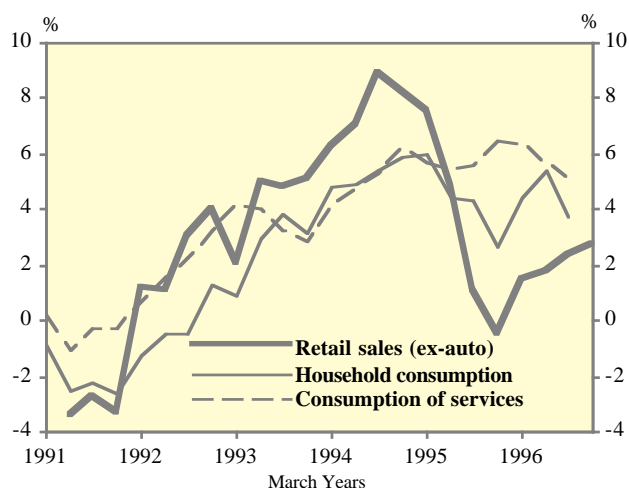
Growth in spending on goods has weakened ...

The published figures for retail trade in recent months confirm a marked slowdown in the growth of consumer spending on goods. Excluding motor vehicle sales and servicing, the volume of retail trade - which is heavily weighted towards goods rather than services - was unchanged in the December quarter, and grew by just 0.4 percent over the final three quarters of 1996.

... but spending on services remains quite buoyant.

Spending on services, however, appears to have remained quite buoyant. Indeed, consumer spending on services grew by 5.2 percent in the year to September 1996. By comparison, spending on durable and non-durable goods increased by just 2.9 percent over the same period.

Figure 4
Real retail sales and consumption
(Annual percentage changes)



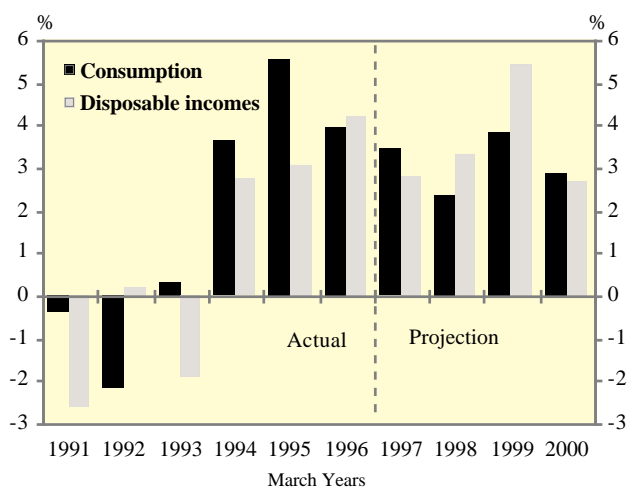
Growth in household disposable incomes will increase ...

Growth in household disposable incomes is projected to average around 4 percent per annum over the three years covered by these projections. Continued growth in both employment levels and wage and salary rates will lead to a rise in employee earnings. This growth will be boosted by the tax cut that is now scheduled for 1 July 1998. Both farm and entrepreneurial incomes are also projected to grow over the period.

... leading to stronger growth in consumption from the second half of 1997.

Strong growth in disposable incomes, and continued growth in wealth as a result of the growth in real house prices, are the key factors driving our projection for consumer spending. We project that growth in consumption will average around 3 percent per annum over the projection period.

Figure 5
Real household income and consumption
(Annual percentage changes)



Household debt levels have increased sharply.

Strong growth in spending on housing has resulted in a sharp increase in household debt levels as a proportion of disposable incomes. Indeed, the household debt ratio has almost doubled since the beginning of the decade. Although increasing house prices have also resulted in a large increase in households' asset levels, increasing debt ratios could, at some point, lead households or lenders to take a more cautious approach to consumer spending. This risk would be heightened if house prices were to fall.

The household savings rate is expected to rise.

As in our previous projections, we expect growth in disposable incomes to exceed growth in consumption over the projection period, leading to a moderate rise in the household savings rate. The main factors that have led us to this view include the impact of Government policies on savings incentives, demographic factors, less rapid growth in house prices than experienced in recent years, high real interest rates, and concerns

about job security as firms seek to improve profitability. However, given our revised economic outlook, the latter three reasons are now less compelling than previously. Thus, the household savings rate is not projected to rise to the level previously foreseen.

Figure 6
Household debt levels
(As a percent of disposable income)

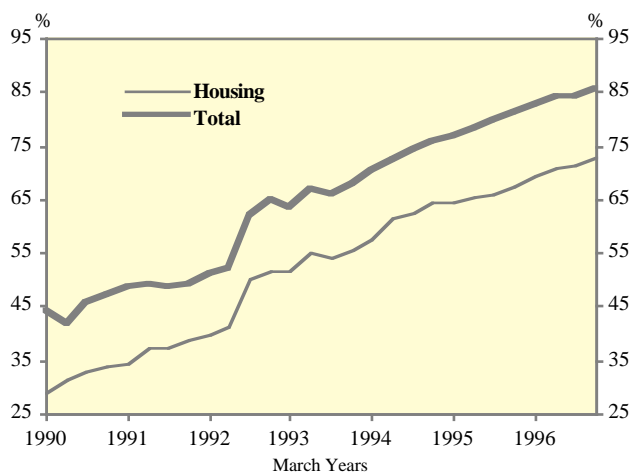


Table 1
Household incomes and consumption
(Percentage change in annual totals)

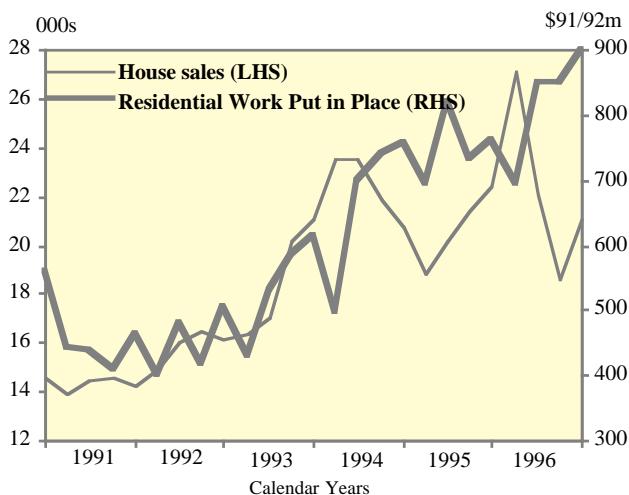
March years	Actuals		Projections			
	1995	1996	1997	1998	1999	2000
Compensation of employees	6.7	6.6	5.3	3.5	5.3	4.8
Other income	4.4	8.7	4.3	2.6	4.7	3.5
Total income	5.6	7.6	4.8	3.1	5.0	4.2
Nominal disposable income	4.9	6.9	5.4	5.0	6.3	4.3
Consumption deflator	1.7	2.6	2.5	1.6	0.9	1.5
Real disposable income	3.0	4.2	2.8	3.3	5.4	2.7
Real household consumption	5.5	3.9	3.4	2.3	3.8	2.9
Savings rate (level)	1.1	1.4	0.8	1.8	3.3	3.1

2. Residential investment

Activity in the housing market has begun to increase.

A wide variety of indicators suggest that activity in the housing market has begun to recover from a weak September quarter. Information on building consents, existing house sales, and house prices all point to a pick-up in housing market activity during the December quarter. However, our business contacts indicate that, at this stage at least, demand has not reached the fever pitch seen in the first quarter of 1996. The widespread expectation and subsequent realisation of falls in interest rates, the reduction in political uncertainty, and improved weather following a poor winter appear to be the main factors causing the rebound in residential investment.

Figure 7
House sales and residential Work Put in Place



Buoyant economic growth will spill over into the housing market ...

Both cyclical and structural factors contribute to our projection that residential investment activity will remain robust. The general pick-up in confidence and economic growth will result in an increase in residential investment. In addition, recent falls in mortgage

interest rates imply that housing affordability will improve slightly over the projection period, compared with that seen over the past year or so. A change in housing preferences - in particular, strong demand for inner-city housing - has also contributed to the building boom, effectively leading to accelerated depreciation in less popular locations.

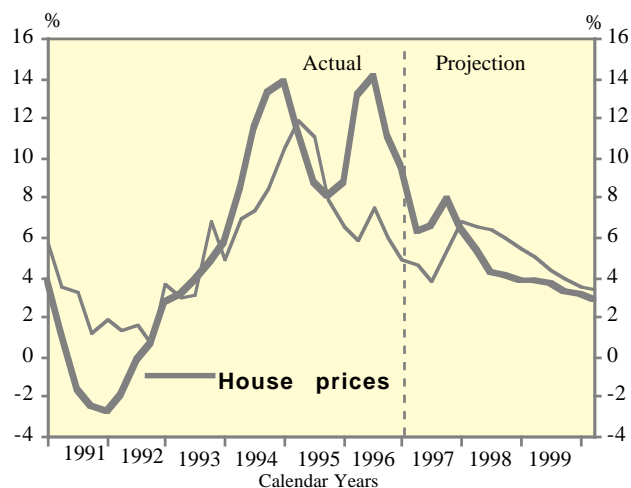
... but is offset to some extent by weaker population growth.

Against this trend, our projection of a sharp decline in net immigration will lead to a reduction in the rate of population growth. This is expected to have a moderating impact on growth in residential investment.

We project renewed upward pressure on house prices and construction costs.

With activity both in the housing market and the economy in general projected to remain strong, house prices, and thus construction costs, are now projected to grow significantly through the period. Strong growth in commercial construction activity (see Section 3) may place additional pressure on house prices and construction costs in 1998/99.

Figure 8
House prices and construction costs (Annual percentage change)



3. Business investment

Non-construction business investment

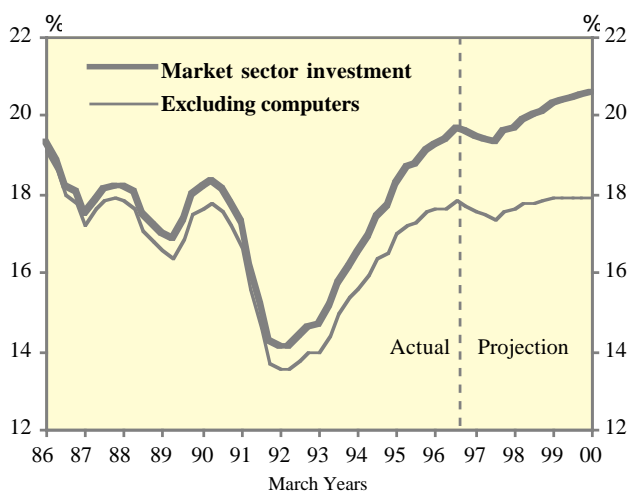
Plant and machinery investment is estimated to have declined in late 1996 ...

Business investment has thus far held up well despite the slowing in the rate of growth of GDP. Very recently, import data point to a decline in plant and machinery investment - both non-computer and computer equipment - in the December quarter. This fall may be related to increased economic and political uncertainty during the latter part of 1996, but changes of this magnitude are normal in these data and do not necessarily imply a change in trend.

... but growth is projected to resume in 1997 ...

With our projections now pointing to stronger economic growth over the projection period, we expect growth in plant and machinery investment to resume in 1997. Indeed, growth is projected to average around 6 percent per annum over the projection period.

Figure 9
Market sector business investment
(As a share of GDP)



... as firms seek to improve productivity and meet new demand.

Several factors lead us to hold this view. First, given the strength of the expected pick-up in consumer demand and the expected recovery in export growth rates, additional capacity will be required by firms to meet this demand. Second, given recent falls in prof-

itability but sound balance sheets and fundamentally good prospects, firms will continue to invest to achieve productivity gains and improve quality and design as a prerequisite to competing in the international marketplace. Finally, given the strong appreciation of the exchange rate and recent growth in wages and salaries, the relative price of capital (compared with labour) has fallen. This will continue to favour investment in labour-displacing technologies.

Commercial construction

Commercial construction activity is expected to decline during 1997.

With the substantial completion of several large projects in 1996, commercial construction activity is projected to decline somewhat over 1997. In addition, economic and political uncertainty during the second half of 1996 may have delayed some construction decisions, and this will also contribute to a drop in activity levels over 1997.

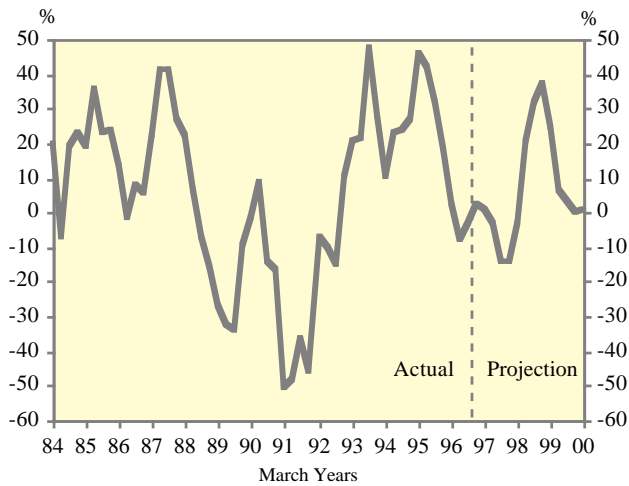
Strong growth in activity is projected in 1998 ...

However, looking further ahead, the outlook is quite buoyant. Numerous large projects - including hotels, apartment complexes, shopping centres, and transport infrastructure - have been proposed in the Auckland region. There also appears to be a good supply of proposals for small- to medium-sized projects in the remainder of the country. These projects are in addition to other, non-building related construction work, including the upgrading of the Manapouri power station, the Manukau water treatment plant, and other infrastructural spending.

... which may lead to pressures on capacity in the construction industry.

If all of the mooted projects were to start in 1998, this could lead to significant upward pressure on industry labour costs, notwithstanding recent increases in the number of trade apprenticeships. This pressure would be likely to spill over into the housing construction industry, leading to even greater pressure on house prices and construction costs.

Figure 10
Non-residential construction
 (Annual percent change)



Stocks

The stocks-to-sales ratio is projected to rise marginally.

Our estimates indicate that stockbuilding will again make a negative contribution to growth in 1996/97 - the third year in a row this has occurred. A slowdown in sales growth, high stockholding costs, and declining profitability have continued to encourage the adoption of improved stock management techniques.

For the 1997/98 and 1998/99 years, stockbuilding is expected to make a small positive contribution to GDP as firms respond to the pick-up in growth in aggregate demand. As a result, the stock-to-sales ratio is projected to rise marginally over the period.

Table 2
Investment

(Percentage change in real annual totals)

March years	Actuals		Projections			
	1995	1996	1997	1998	1999	2000
Market sector business investment						
Plant and machinery	19.4	10.3	2.2	8.8	10.1	8.1
(P&M excluding computers)	(13.9)	(6.7)	(-1.8)	(6.2)	(7.6)	(4.8)
Transport equipment	12.4	6.6	16.1	6.3	-10.2	1.9
Commercial buildings	29.9	22.9	-2.0	-9.1	28.5	2.8
Other	-5.3	7.3	5.0	1.6	3.8	2.1
Total	17.1	11.5	3.9	4.6	8.6	5.7
(Total excluding computers)	(14.0)	(9.7)	(2.7)	(3.6)	(7.3)	(3.9)
Market sector residential investment	12.1	-0.7	-1.2	2.7	1.8	0.8
Total market sector investment	15.7	8.2	2.7	4.1	7.0	4.6
Government (non-market) investment	16.8	3.7	9.2	18.5	-2.1	1.9
Total investment	15.8	7.8	3.2	5.5	6.0	4.3
(Total excluding computers)	(13.6)	(6.3)	(2.2)	(4.7)	(4.8)	(2.8)

4. Exports

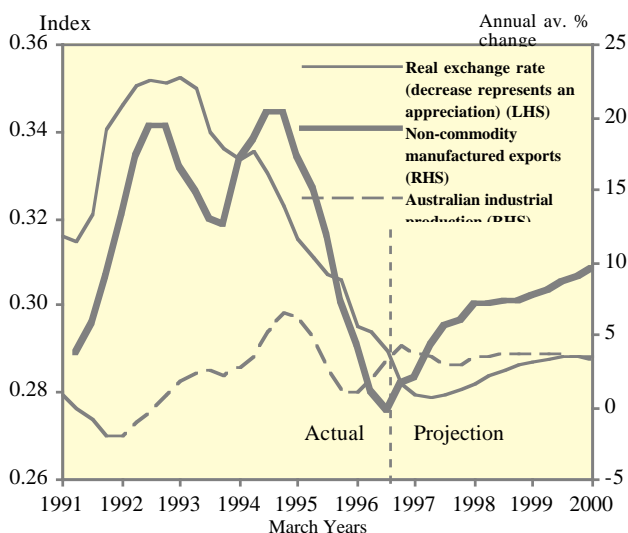
Export volumes

External factors and a rising real exchange rate have dampened growth in non-commodity manufactured exports.

We now estimate that growth in non-commodity export volumes will be slightly less than 2 percent in 1996/97. This represents a pronounced slowdown compared with the average growth of 15 percent per annum recorded over the earlier part of the decade.

Several factors have contributed to this slowdown. First, the strong appreciation of the real exchange rate has clearly reduced profitability. In some cases this has led to the loss of export orders. At the very least, declining profitability has led some firms to be more cautious in their approach to developing new export markets. Second, modest growth in consumer and housing demand in the key Australian market has also acted to depress growth.

Figure 11
Non-commodity manufactured exports and the real exchange rate

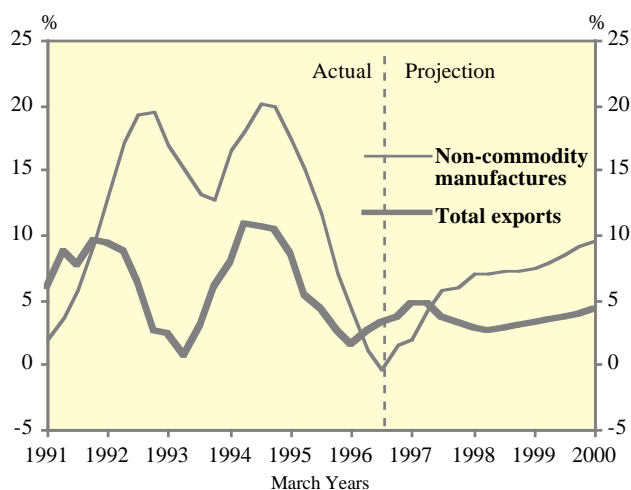


More favourable trading conditions are projected to see growth in manufactured export volumes recover during 1997.

Nevertheless, we project improved export performance in 1997 and beyond. This improved outlook partially reflects our assumption of no further appreciation in the real exchange rate - indeed, our assump-

tions imply a modest real depreciation over the period - and the *Consensus Forecast* of stronger growth in domestic demand in Australia over the projection period. In addition, our projection reflects our assessment that firms will begin to reap the benefit of actions taken over the past year or more to raise productivity levels. However, we project that growth rates will recover only to around half that of the rates achieved earlier in the decade.

Figure 12
Export volumes
(Annual percentage change)



Export prospects for primary products remain somewhat mixed.

As usual, the prospects for export growth in the primary goods sector are rather mixed. On the positive side, forestry exports are projected to grow by around 3.5 percent per annum. Exports of meat and dairy products are also projected to show modest growth later in the period after declining slightly during 1997/98 (these reduced growth rates are due to our assumption that climatic conditions return to normal following an exceptionally good 1996/97 season). However, exports of wool are projected to decline slightly over the period.

Exports of services will be boosted by growth in tourist arrivals.

Despite the recent rise in the real exchange rate, we continue to project strong growth in tourist arrivals.

Strong rates of economic growth in the major source countries, combined with falling travel costs and growing recognition of New Zealand as a tourist destination, are the most important factors influencing this view. However, as a result of compositional shifts in the nationality of the tourists that New Zealand is attracting, and the impact of the high real exchange rate, we project a decline in average spending per tourist.

Overall growth in export volumes is projected to increase modestly.

Combining our projections of primary and manufactured exports with our outlook for service exports, we project growth in total export volumes to average around 3.5 percent per annum.

World export prices

On balance, we expect the world prices of New Zealand's exports to remain broadly stable.

On balance, the world prices of New Zealand's exports are expected to remain broadly stable over the projection period. World prices for forestry products and, to a lesser extent, for dairy products and meat are expected to increase over the medium term. However, the prices of other exported commodities are expected to drift down. Little change in the world price of non-commodity manufactured goods is projected.

Table 3
Export volumes

(Percentage change in real annual totals)

March years	<u>Actuals</u>		1997	<u>Projections</u>		
	1995	1996		1998	1999	2000
Goods	7.2	0.7	6.4	2.7	3.3	4.0
Services	12.7	4.2	-0.5	3.1	3.3	5.5
Total exports	8.5	1.5	4.7	2.8	3.3	4.3
Selected categories:						
Manufactured goods	13.8	4.4	5.9	6.5	5.8	7.4
Meat	2.1	9.0	-2.4	-2.0	2.0	2.8
Dairy	15.8	-11.4	29.1	-3.4	-0.1	3.6
Forestry	7.0	0.7	3.3	4.6	3.0	2.4
Wool	12.8	-20.6	1.2	-1.8	-1.0	1.4
Other primary goods	0.9	10.2	3.8	-1.3	6.6	1.5

Box 2: Focus on the export sector

The rise of the New Zealand dollar over the last four years has affected the profitability of exporters, quite severely in some cases. Exporters, business and government leaders, market commentators, and the Bank are all concerned that New Zealand's export base may be eroded by the strong exchange rate.

Our overall assessment is that the current pressures on the export sector may be at, or close to, a cyclical peak, and are not outside the range of past experience in what is inherently a cyclical sector of the economy.

In terms of specific export sectors, we turn first to manufactured goods. In formulating its view, the Bank visits a wide range of exporting companies as part of its regular business visits prior to each projection round. We supplement this information with discussions with banks, financial services firms, and major business associations. Our information suggests that many (but not all) manufacturing exporters are experiencing tough business conditions but that overall there has been no major change in exporters' activity levels over recent months. In particular, banks report that there has been no change in credit policy towards exporters since many exporters still have strong balance sheet positions.

Overall, demand for New Zealand's exports appears to be holding up, despite the appreciation of the New Zealand dollar that has occurred over the last four years, and the sluggish growth experienced in Continental Europe and Japan. This reflects:

- The sustained growth that has occurred in other major markets, notably Australia and the United States where the prospects for continued growth appear reasonably good.
- The large strides made by the New Zealand export sector in terms of cost efficiencies and quality standards.
- The fact that the appreciation of the real exchange rate that has occurred during the last four years began from a point where the real exchange rate was well below its long-run trend.
- The strong balance sheets of many exporters, which is providing scope for them to invest to improve efficiency, marketing, and product development.

Direct statistics on the profitability of manufacturing exporters are less readily available than statistics on export values and volumes. Nevertheless, statistics for the September 1996 quarter in the *Analysis of Manufacturing Industries* (Trust Bank, December 1996) suggest that profitability for the manufacturing sector as a whole has remained fairly stable over the last few years. This view is supported by the NZIER's December 1996 *Quarterly Survey of Business Opinion*, which reports that manufacturers continue to expect increased export sales and static profit levels.

Turning to the primary sector, a number of specific factors are relevant:

- International sheep meat prices, particularly for lamb, rose sharply during 1996 and are now well above their last cyclical peak in 1993. While still depressed, the most recent movements in beef prices in the United States have been upwards. These developments provide grounds for adopting a more positive outlook for the meat sector than has been the case in the recent past. This view is supported by strong farmer demand for breeding ewes and younger fattening cattle at recent stock sales.
- The outlook for international wool prices is perhaps less clear. There are signs that, after falling over 1996, prices are now stabilising. Demand for wool is closely related to growth in OECD industrial production, which is projected to at least maintain current growth rates throughout 1997.

- International dairy prices have fallen from their cyclical peak in early 1996. We anticipate some further downside to dairy prices over 1997, albeit from a historically high level.
- World forestry prices have been falling recently because of a strong cyclical downturn in pulp and paper prices and weak demand for building timber in Japan. Looking ahead, however, the local industry should derive some benefit from a recovery in the Australian housing construction sector which now appears to be taking place.
- The outlook for horticultural products is mixed, with apple prices lower (but still above their 1993 to 1996 average) and uncertain trends in kiwifruit prices.
- Fish exporters have been heavily exposed to the impact of a substantial appreciation of the New Zealand dollar against the Yen.

In profitability terms, primary producers experienced substantially reduced incomes in 1995/96 but some recovery is expected for 1997 and beyond. The strong growing season and improving prices, particularly for sheep meat producers, should result in sheep and beef farm incomes increasing by about 20 percent this season. Farmers' balance sheets are underpinned by strong asset values. Indeed, since the bottom of the trough in farm prices in late 1988, farm prices have risen by approximately 13 percent per annum, while house prices have risen 6 percent per annum over the same period.

Finally, in the tourism sector, the number of short-term visitors to New Zealand grew by 9 percent in 1996, reaching over 1.5 million. We project that the number of short-term visitors (mainly tourists) will continue to rise over the projection period. Visitor numbers should receive a boost towards the end of our projection period as a result of the America's Cup defence and the Sydney 2000 Olympics. Earnings from tourism now comprise a significant portion of total export earnings.

Figure 13
Manufacturers' expectations (QSBO)
 (Net percentage expecting increase in sales and profits)

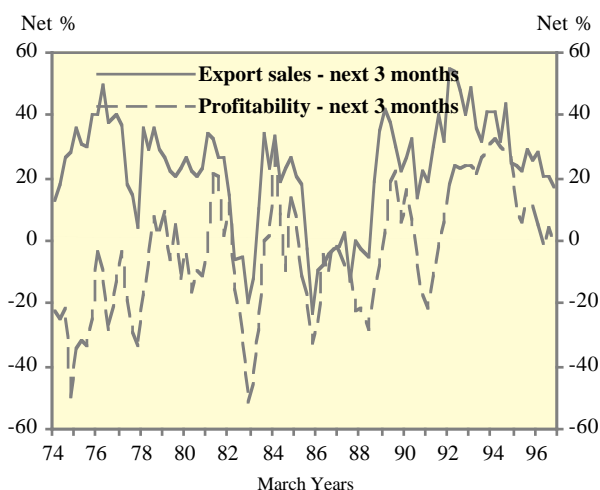
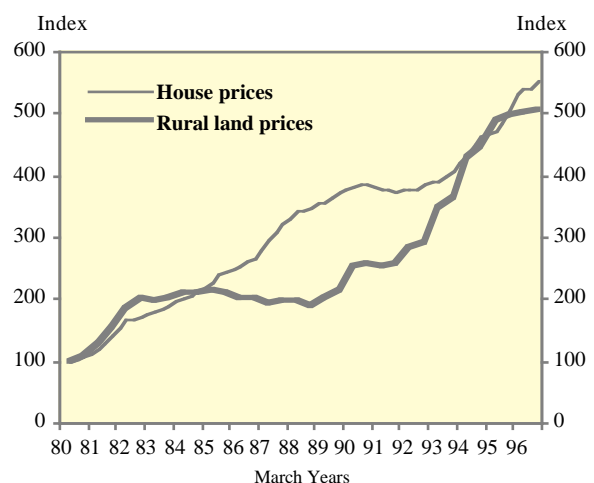


Figure 14
House and rural land prices
 (Valuation New Zealand indices)



5. Imports

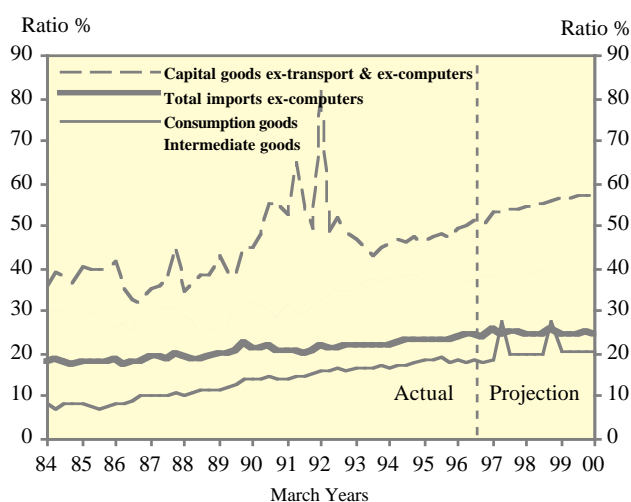
Import volumes

Import penetration is projected to continue rising.

Our projection for import volumes is based on an analysis of the factors influencing import penetration ratios and our outlook for aggregate demand.

We continue to project a gradual increase in import penetration ratios over the period ahead, albeit from a lower level. In the main, the increase reflects the lagged adjustment to the further upward step in the real exchange rate that has occurred since our last projections were produced in December. The higher real exchange rate means that foreign-produced goods and services become relatively more attractive (on a pure price basis) compared with locally produced substitutes. The upward trend - while showing signs of moderating in magnitude over the past year - also reflects an ongoing change in consumer and business preferences, reinforced by the process of trade liberalisation.

Figure 15
Import penetration ratios



Strong domestic demand will also lead to rising import volumes.

In addition to the impact of increasing import penetration, the projected strengthening of aggregate demand during the period also has a marked positive effect on the demand for imported goods and services. Higher disposable incomes are projected to lead to greater spending on most goods and services, including those that are imported.

Differing conventions affect how the ANZAC frigates will be recorded in import statistics.

New Zealand assumes ownership of the first frigate in March 1997. The System of National Accounts (SNA) and Balance of Payments (BOP) measures of imports will record this purchase in the same quarter (thus being included in the figures for the year ended March 1997). However, the frigate is not scheduled to arrive in New Zealand until May 1997. Thus, the Overseas Trade Index measure of imports, which is based on when the goods pass over the border as opposed to when they change ownership, will record the purchase in the June 1997 quarter (thus being recorded in the figures for the year to March 1998).

In terms of the second frigate, at this stage we have assumed that both the change in ownership and physical possession will occur in the December 1998 quarter.

World import prices

World commodity prices are expected to fall slightly during 1997.

The world price of New Zealand's non-oil commodity imports is projected to decline during 1997, reflecting the significant slowdown in the annual growth rate of OECD industrial production that occurred during 1995 and early 1996. Thereafter, *Consensus Forecasts* point to reasonably robust growth in industrial production over the remainder of our forecast horizon. Thus, we anticipate stronger commodity prices from early 1998 onwards.

Recent exchange rate movements dominate the short-term outlook for the prices of New Zealand's non-commodity manufactured imports.

Domestic prices of non-commodity manufactured goods are projected to fall over 1997/98, largely due to our assumption for the exchange rate. However, from 1998 onwards our exchange rate assumption implies that there is no offset to world inflationary pressure. Hence, we expect imported manufactured goods inflation to rise modestly, given that we expect higher international producer prices.

World oil prices are projected to stabilise at around current levels.

After rising significantly during the latter part of 1996, the price of Dubai crude has fallen from around \$US 22 per barrel at the start of 1997 to below \$18 per barrel in late February. We assume that oil prices will stabilise at around \$17.60 per barrel during the second half of 1997. Previously, we did not expect this price level to be attained until early 1998. This assumption is subject to a degree of upside-risk, mainly related to whether or not the Iraqi oil-for-food deal is extended beyond the agreed initial six month period.

Figure 16
Imported commodity prices and OECD industrial production growth

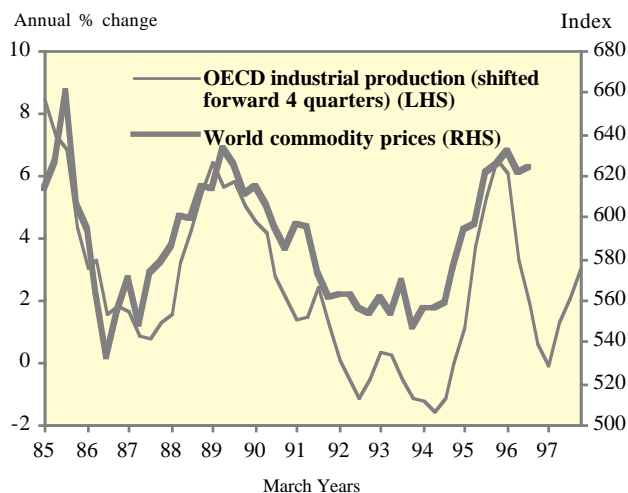


Table 4
Import volumes

(Percentage change in real annual totals)

March years	Actuals		Projections			
	1995	1996	1997	1998	1999	2000
Goods	15.5	6.5	8.5	4.4	7.3	2.6
(Goods excluding computers)	(13.7)	(5.2)	(8.0)	(3.7)	(6.5)	(1.3)
Services	8.5	5.3	9.2	4.4	3.0	2.2
Total imports	14.0	6.3	8.6	4.4	6.5	2.6
(Total excluding computers)	(12.6)	(5.2)	(8.3)	(3.9)	(5.8)	(1.5)
Selected categories:						
Consumption goods	12.9	6.9	1.3	19.5	4.9	-4.7
Capital goods (excluding transport and computers)	18.8	10.0	4.1	12.5	10.8	7.8
Intermediate goods	9.4	2.1	2.4	4.2	4.1	2.7

6. The current account

An improvement in the terms of trade offsets a deterioration in net export volumes.

All else equal, the outlook for net export volumes would imply a continued reduction in the trade balance through most of the period. However, abstracting from the impact of frigate purchases, the trade balance is projected to remain broadly unchanged over the period covered by the projections. This outcome reflects our projected improvement in New Zealand's terms-of-trade.

However, the deficit on invisibles is projected to continue widening.

A widening of the deficit on the invisibles balance is the main factor explaining our outlook for the current account balance. As in previous projections, a decline in net immigration (due to changes in immigration policy) is expected to lead to a fall in the surplus on the transfers balance. Similarly, the cost of funding continued current account deficits is projected to lead to an ongoing increase in the deficit on the investment income balance. However, the main revision compared with previous projections stems from the services balance. Given recent low outturns, and the further rise in the real exchange rate since our last projections, we have taken a more negative view of the outlook for the balance on services.

As a result, the current account deficit rises to around 6 percent of GDP ...

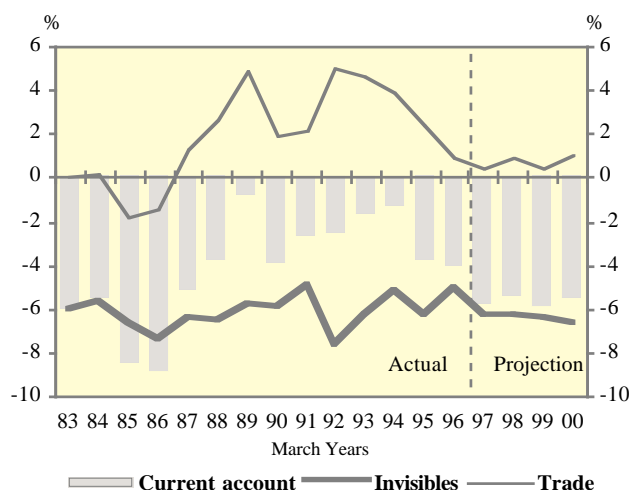
As a result of the deterioration in the invisibles balance, we now estimate that the current account deficit will reach 5.8 percent in the year to March 1997, the largest annual deficit recorded in more than a decade. Moreover, the current account deficit is projected to remain at around 5.5 to 6 percent of GDP over the remainder of the period.

... or around 7 percent of GDP if migrants' cash transfers are excluded.

Revised International Monetary Fund (IMF) guidelines recommend that migrants' cash transfers be removed from the current account and instead treated as a capital account item. Strong growth in net immigration (at least up until recently) has been a significant driver of the improving transfers balance. Thus, New Zealand's current account deficit will be revised up significantly if the IMF's recommendation is adopted by Statistics New Zealand. Excluding migrants trans-

fers, we estimate that the current account deficit will reach 7.5 percent of GDP in the year to March 1997, and will remain at around 7 percent of GDP over the remainder of the decade.

Figure 17
Current account balance
(As a share of GDP)



Risks associated with the balance of payments account for a considerable portion of the total risk surrounding this projection.

Current account deficits of this magnitude are unlikely to be sustained indefinitely. At some point, adjustment is likely to occur either voluntarily (in the form of an increase in household and firm savings) or through the external constraints provided by financial markets (in the form of a substantial capital outflow as investors seek to protect themselves from the inevitable depreciation of the real exchange rate). Clearly, although not captured in our central projection, there is the risk that such adjustment could occur during the period covered by these projections. If so, the likely outcome would be a substantial rebalancing of monetary conditions and, in the short-term, possibly weaker economic growth.

Table 5
Current account
(\$ million)

March Years	Actuals		Projections			
	1995	1996	1997	1998	1999	2000
Merchandise trade balance	2,092	881	417	850	487	1,097
Services balance	-566	-271	-727	-832	-916	-781
Investment income balance	-6,459	-6,530	-6,869	-6,788	-7,112	-7,684
Transfers balance	1,623	2,263	1,712	1,411	1,374	1,328
Current account	-3,310	-3,657	-5,467	-5,359	-6,167	-6,040
(% of nominal GDP)	(-3.9)	(-4.0)	(-5.8)	(-5.5)	(-5.9)	(-5.6)
(% of nominal GDP ex migrants' transfers)	(-5.6)	(-6.4)	(-7.5)	(-6.8)	(-7.2)	(-6.7)

7. The labour market

Employment

Employment growth appears to have weakened in line with our projections ...

As expected, employment growth began to weaken during the second half of 1996. This reflected both the continued sluggishness of growth in demand and efforts by some firms to restore productivity and profitability levels following a period of labour hoarding. Total employment grew by just over 2 percent during 1996, roughly half the rate of growth recorded in 1995. The decline in growth in the total number of hours worked - an alternative measure of labour input - was of a similar magnitude.

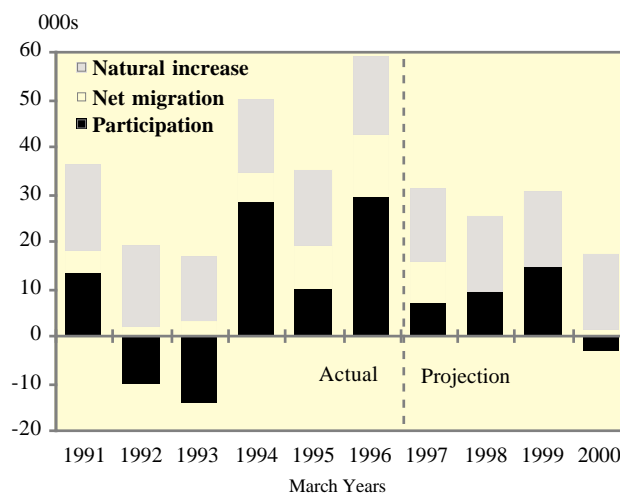
... but recent labour force data do not provide clear trends.

However, the Household Labour Force Survey (HLFS) - the most important source of employment and labour force data in New Zealand - has displayed quite volatile results during the second half of 1996. This means that additional caution is required when inferring trends in the most recent data. This volatility is particularly related to estimates of part-time employment and labour force participation, and may be related to changes in social welfare criteria introduced on 1 July 1996. As

a result of a sharp fall in labour force participation in the December quarter, the unemployment rate fell below 6 percent for the first time since the June 1988 quarter, reversing the previous increase.

Figure 18

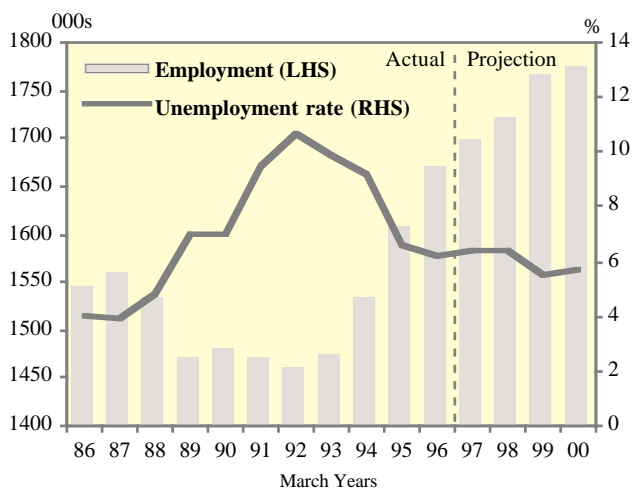
Approximate contributions to labour force growth (Annual changes)



Employment growth will increase with the projected strengthening of domestic demand ...

Because our projections of economic growth have been revised upwards, the rate of growth in employment is also now expected to be stronger than previously envisaged. However, as in our previous projections, we expect the pick up in growth in employment to lag behind the pick up in production. We believe that many firms have been reluctant to lay off staff as growth in aggregate demand slowed, resulting in an unusually deep and prolonged fall in productivity. This hoarding of labour reflects both the lack of available skilled staff in the market and the expectation that the slowdown in output growth would be relatively short-lived. Therefore, at least initially, firms are likely to seek to meet new growth in demand with their existing workforce, so as to raise both productivity and profitability levels. Nevertheless, our projections point to the creation of around 80,000 additional jobs over the next three years.

**Figure 19
Employment and the unemployment rate**

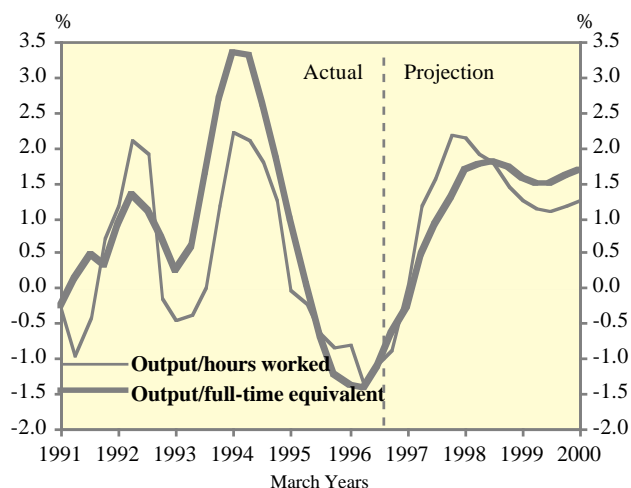


... leading to renewed pressures in the labour market.

Labour force growth over the period covered by these projections is expected to be much weaker than experienced over recent years. This reflects both a sharp reduction in New Zealand's net immigration (due to policy change) and our expectation of somewhat slower growth in labour force participation. As a result, when this is combined with continued growth in employment, the unemployment rate is projected to fall to around 5.5 percent during the second half of the projection period (after rising slightly over the coming year).

The fall is likely to lead to renewed skill shortages and thus put additional upward pressure on labour costs.

**Figure 20
Measures of labour productivity
(Annual average percentage changes)**



Labour costs

Labour costs have continued to evolve more or less in line with our projections.

Labour costs appear to have continued to evolve more or less in line with our expectations. Our measure of the trend private sector hourly wage rate - derived from the Quarterly Employment Survey - increased by 0.8 percent during the December quarter. This increase was only marginally higher than the 0.7 percent increase that we had expected. The trend increase has now slowed for two quarters in a row after peaking at around 1 percent in the June 1996 quarter.

The gradual slowing in wage growth reflects declining profitability, especially in the tradeable goods sector, and the declining significance of the 'catch-up' phase that followed several years of low wage settlements.

Stronger economic growth will lead to increased pressures on unit labour costs.

In the short-term, and abstracting from the one-off impact of the increase in the minimum wage (see Box 3), we anticipate a further slowing in the rate of increase in labour costs. However, as economic growth strengthens, pressures on productive capacity again become evident, and as inflation pressures build, we

project a gradual rise in wage and salary settlements. On average, wage and salary rates are projected to grow by around 2.5 to 3 percent per annum, implying that real wage growth will be broadly in line with growth in labour productivity over the period.

Figure 21
Private sector labour costs
(Annual percentage change)



Table 6
Labour market

March Years	Actuals		Projections			
	1995	1996	1997	1998	1999	2000
Labour force						
Natural increase (000's)	16.0	16.3	15.8	15.9	16.0	16.0
Net migration (000's)	9.2	13.0	8.6	0.0	0.0	1.3
Increase in participation (000's)	9.6	29.3	6.7	9.3	14.4	-3.5
Change in labour force (000's)	34.8	58.6	31.1	25.2	30.4	13.8
Employment (000's)						
Employment (000's)	1,608.1	1,670.5	1,697.2	1,720.9	1,766.0	1,775.3
Annual growth (%)	5.0	3.9	1.6	1.4	2.6	0.5
Unemployment (000's)						
Unemployment (000's)	119.9	116.1	120.5	122.1	107.4	111.9
Unemployment rate (seas. adj.)	6.6	6.2	6.3	6.3	5.5	5.7
Labour force participation rate (%)						
Labour force participation rate (%)	64.6	65.7	66.0	66.3	66.8	66.7

Box 3: Possible effects of the increase in the minimum wage

On 1 March 1997, the adult minimum hourly wage was increased from \$6.375 to \$7.00. The youth minimum hourly wage increased from \$3.825 to \$4.20, thus retaining the youth minimum wage at 60 percent of the adult minimum wage.

Increasing the minimum wage has a number of effects on the labour market and inflation. The first round effect should be to increase the wages of all those on wages below the new minimum. According to the March 1996 Household Economic Survey, approximately 5.6 percent of adults in employment were earning below the new adult minimum wage of \$7.00, while 5.2 percent of 16-19 year olds in employment were earning less than the youth minimum wage of \$4.20. Thus, the first round impact on the overall level of wage growth should be small, adding around 0.3 percent to growth in average hourly earnings. Consequently, there should be little direct impact on inflation.

The second round effects of the increase in the minimum wage are potentially more pervasive and harder to assess. Increasing the minimum wage may increase wage pressure across the economy as workers aim to maintain their margin above the minimum wage. However the decentralised nature of wage bargaining in New Zealand suggests that it is less likely that there will be significant wage pressure from this source than was previously the case.

Most economic research suggests that increasing the minimum wage may have a negative impact on employment, as increasing the minimum wage increases labour costs and so may reduce the demand for labour. The size of the impact depends on country-specific factors, such as the level of the minimum wage relative to the average hourly earnings and the elasticities of labour demand and supply. On the other hand, one recent study in the United States suggested that increasing the minimum wage may actually have a small positive effect on employment.¹

Research in New Zealand on the impact of the adult minimum wage on employment suggests that a 10 percent increase in the adult minimum wage reduces employment of young adults (20-24 years) by 1.4 to 1.8 percent, and for young adults without post-school qualifications by 3.4 to 3.8 percent.² This suggests that the increase in the minimum wage should result in a fall in the employment levels of young adults, particularly for those without qualifications, though the extent of the impact is difficult to determine.

For teenage workers the effects are less clear. Since the new youth minimum wage has remained at 60 percent of the adult minimum wage, no additional incentive has been created for employers to employ young adults in preference to youths. However, employers' demand for youth workers may well be more sensitive to labour costs, so that there could still be some decline in the overall level of employment for teenage workers.

¹ Card, D., and A. Krueger (1994), "Minimum Wages and Employment: A Case Study of the Fast Food Industry in New Jersey and Pennsylvania", *American Economic Review*.

² Maloney, T., (1994) "Does the Adult Minimum Wage Affect Employment and Unemployment in New Zealand", University of Auckland Working Papers in Economics No 137.

8. The fiscal outlook

Our projections are based on the fiscal parameters outlined in the Coalition Agreement.

Our projections for government expenditure and revenue were prepared before the release of the *Budget Policy Statement* and so are based on the fiscal parameters contained in Schedule B of the Coalition Agreement. Thus, compared with the *December Economic and Fiscal Update*, our projections incorporate additional government expenditure of \$1,200m in 1997/98, \$1,700m in 1998/99, and \$2,100m in 1999/2000. Consistent with the Coalition Agreement, we have taken into account the one year delay of the tax cut previously scheduled for 1 July 1997.

Our projections make no allowance for the introduction of the proposed compulsory retirement savings scheme as it is the subject of a referendum to be held in September 1997. Therefore, at this stage we have also assumed that the associated tax cut (proposed for 1999/2000) is not implemented. As usual, our projections of government expenditure and revenue will also differ from the Government's to the extent that our projections embody a different view about the macroeconomic outlook.

Increased government spending will fuel domestic demand.

Increased government spending on goods and services will provide a direct stimulus to aggregate demand over the period covered by the projections. However, the extent of the fiscal stimulus during 1997/98 is only slightly greater than that projected previously by the Bank. This is due to the largely offsetting impact stemming from the postponement of the previously-scheduled tax cut.

Tax cuts will further stimulate demand during 1998/99.

Compared with our previous projections, the most significant difference occurs in 1998/99. A further increase in government spending, combined with the implementation of the delayed tax cut, will result in a substantial stimulus to aggregate demand. To the extent that the impact of the fiscal stimulus is well anticipated by households and firms, aggregate demand and inflation pressures could begin to build in advance of the actual fiscal stimulus.

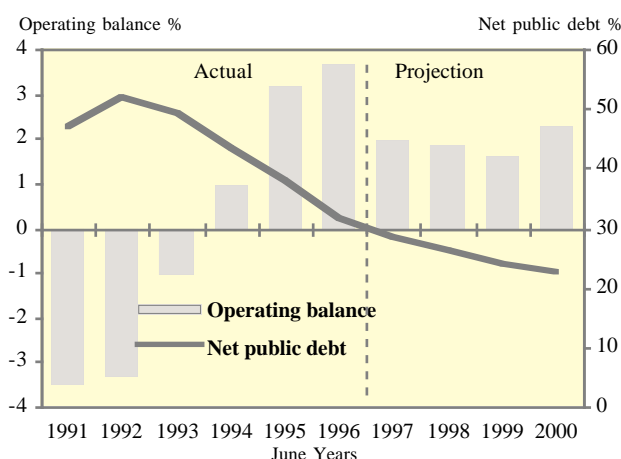
A compulsory savings scheme could moderate aggregate demand.

If implemented, a compulsory savings scheme would probably moderate aggregate demand pressures. The exact impact on household savings patterns would depend on the detailed structure of the scheme, including how the scheme is perceived by households. For example, it is possible that the scheme could be perceived as a near-perfect substitute for private savings. If so, some households would simply reduce their current non-compulsory savings levels, leaving aggregate savings levels unchanged. However, a net increase in savings is likely to be recorded in those mainly low-income households where savings are currently very low or non-existent.

Net public debt will continue to fall throughout the period.

The government's operating balance is projected to remain in surplus throughout the period. However, our projections suggest that the operating balance will fall during 1997/98 and 1998/99, before rising in 1999/2000. Continued operating surpluses and strong economic growth will lead to a further decline in net public debt as a proportion of GDP. We project that net public debt will fall below 23 percent of GDP during the 1999/2000 fiscal year.

Figure 22
Operating balance and net public debt
(As a share of GDP)



Note: uses adjusted financial balance until 1992 and operating balance from 1993

Table 7
Fiscal accounts
(\$ million)

June years	Actuals		Projections			
	1995	1996	1997	1998	1999	2000
Direct taxation	19,843	21,255	20,550	21,330	21,380	22,490
Indirect taxation	10,370	10,978	11,450	11,810	12,440	12,820
Non-tax revenue	3,435	2,826	2,850	2,240	2,270	2,330
Total revenue	33,648	35,059	34,850	35,380	36,090	37,640
Total expenses	30,400	31,743	33,230	34,110	35,060	35,950
Revenue less expenses	3,248	3,316	1,620	1,270	1,030	1,690
Net surplus attributable to SOEs & Crown entities	-553	-2	250	570	650	690
Operating balance (% of Nominal GDP)	2,695 (3.1)	3,314 (3.6)	1,870 (2.0)	1,840 (1.9)	1,680 (1.6)	2,380 (2.2)

9. Inflation

Recent trends

Underlying inflation in the December quarter was slightly higher than expected.

The underlying inflation rate was 0.6 percent in the December 1996 quarter, 0.1 percentage points higher than estimated in the December 1996 *Monetary Policy Statement*. The source of the discrepancy was not confined to a particular CPI group, but instead was spread over most of the regimen. Underlying inflation was 2.4 percent in the year to December 1996 and the weighted median measure of inflation was 1.7 percent over the same period.¹

Inflation in the non-tradeables sector continues to dominate.

Inflation in the non-tradeables sector of the economy continues to exceed inflation in the sectors of the economy that are exposed to international competi-

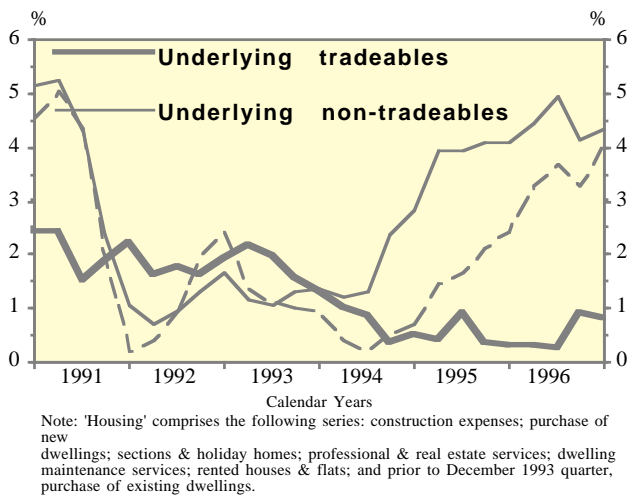
tion. In underlying terms, the price of non-tradeable goods and services increased by 1.0 percent in the December 1996 quarter and by 4.3 percent in the year to December 1996. By comparison, in underlying terms, the price of tradeable goods and services increased by just 0.3 percent in the December 1996 quarter and by 0.8 percent in the year to December 1996.

Headline inflation was slightly higher than underlying inflation in the quarter.

The headline inflation rate was 0.7 percent in the December quarter, 0.2 percentage points higher than estimated in the December 1996 *Monetary Policy Statement*. The difference reflected both the outcome for underlying inflation and an unexpected upward movement in hire purchase credit costs during the quarter.

¹ Sum of four quarterly weighted medians.

Figure 23
Tradeables vs non-tradeables inflation
(Annual percentage changes)



The short-term outlook

Our estimate of underlying inflation in the March quarter is only slightly higher ...

Our projections of underlying inflation in the March and June 1997 quarters are based on a component-by-component analysis of the goods and services contained in the CPI regimen. The analysis takes into account recent trends and seasonal patterns, and makes use of leading indicator relationships and other information drawn from a wide variety of sources.

Our projection for the March quarter has been revised up marginally (0.5 percent versus 0.4 percent previously). As a result of the pick-up in the housing market, house construction costs are now expected to make a disproportionately high contribution to inflation, as are tertiary tuition fees (estimated to increase by over 12 percent in the March quarter). These contributions are only partially offset by sharp falls in car and apparel prices.

... but our projection for underlying inflation in the June quarter has been revised up significantly.

For the first time, our projection for underlying inflation in the June 1997 quarter falls within the time horizon in which we use our components-based forecasting techniques. Our components-based approach points to much stronger underlying inflation in the June quarter than had been previously suggested by our time-series and structural models - we now expect underlying inflation to be around 0.5 percent in the

June quarter compared with the 0.2 percent projection contained in the December 1996 *Monetary Policy Statement*.

To the extent that it is possible to reconcile the two approaches, the upward revision reflects two factors. First, it reflects our projection of much stronger activity in the housing market as a result of the rebalancing of monetary conditions. Second, it reflects our more pessimistic assessment of the likelihood of seeing a full pass-through in the short term as a result of the appreciation of the exchange rate. This assessment stems from the disappointingly high outcomes for the Overseas Trade Indices during the September quarter. It is possible, however, that we have been unduly pessimistic given the recent weakness in consumer demand. Indeed, sharp falls in vehicle prices, albeit less substantial than we had expected given recent exchange rate movements, may be indicative of exchange rate pass-through finally occurring in other parts of the tradeable goods sector.

The medium-term outlook

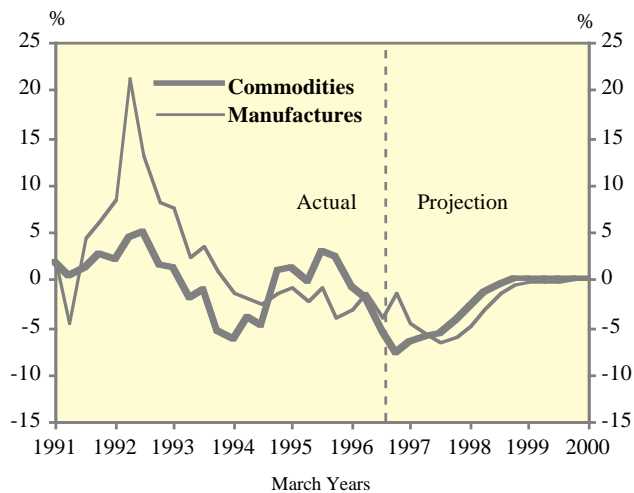
Underlying inflation is still expected to decline during 1997 and early 1998.

Our projections point to a rapid fall in underlying inflation during the second half of 1997. We project underlying inflation to fall to 1.5 percent in the year to December 1997 and to 0.8 in the year to June 1998.

Falls in the domestic price of imported goods make a significant contribution ...

As in our December *Monetary Policy Statement*, falling prices for imported goods are the most significant factor contributing to the decline in inflation. This reflects the lagged impact of the appreciation in the nominal exchange rate over the past two years. However, as noted earlier, given the ongoing lack of 'first-stage' pass-through in the Overseas Trade Index measure of landed import prices, we have further extended the period over which these price reductions are assumed to be passed through into consumer prices.

Figure 24
Domestic import prices - commodities and manufactures
 (Annual percentage change)



... as does slower growth in unit labour costs as productivity growth rebounds.

Our projection of a cyclical upswing in labour productivity removes a recent source of upward pressure on selling prices. And, in contrast to the previous projection, an upward revision to our projection for housing construction costs means that this factor is no longer such a significant contributor to the projected decline in inflation.

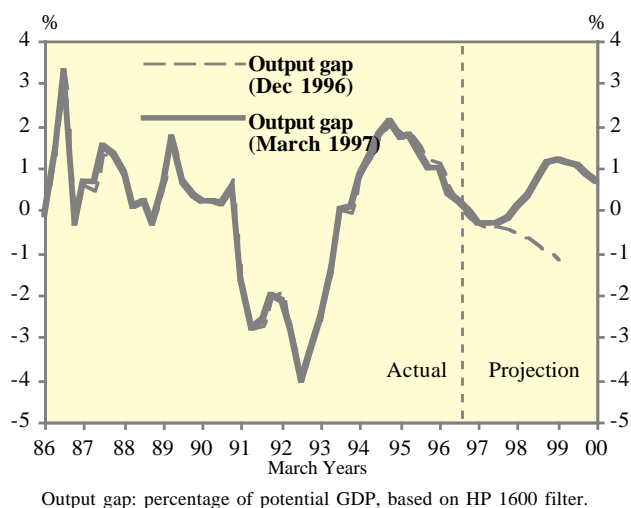
Our much stronger economic growth profile will lead to renewed pressures on capacity as 1998 progresses ...

Our December *Monetary Policy Statement* suggested that the economy would sustain a small, but increasing, negative output gap over most of the period covered by the projections. This led to a continuous and increasing degree of downward pressure on inflation. By contrast, the much stronger outlook for aggregate demand contained in these projections implies that pressures on spare capacity will again develop during 1998 as the level of economic activity is pushed beyond the economy's sustainable (or 'potential') level of output - the latter is assumed to be growing at the rate of 2.75 percent per annum in these projections.

... resulting in a rebound in inflation outcomes later in the projection period.

Given the above, we project that the economy will be subject to upward pressure on labour costs and profit margins. This leads us to project a rise in the underlying inflation rate during the latter part of the period. In annual terms, underlying inflation is projected to increase from a trough of 0.8 percent in the June 1998 quarter to around 2 percent by the March 2000 quarter.

Figure 25
The output gap
 (As a share of potential GDP)



Output gap: percentage of potential GDP, based on HP 1600 filter.

Lower headline inflation over the short-term solely reflects movements in credit costs.

We project that the quarterly rate of headline inflation will track below inflation in the CPI-ex credit services during early 1997. This solely reflects the impact of recent falls in mortgage interest rates.

The Bank does not expect any exclusions from headline inflation due to caveatable influences.

We have reviewed our method for calculating the total impact of world crude oil prices on headline inflation. We are satisfied that the existing method captures adequately the total influence of crude oil prices on headline inflation, including the impact on petrol prices, airfares (indirectly via jet fuel prices), and other items whose inputs (for example, plastics and chemicals) are substantially affected by crude oil prices. Therefore, given that our existing method indicates that world oil prices do not contribute 0.25 percentage points or more

to inflation over any 12 month period, no exclusions from headline inflation are projected over the period. Moreover, no other caveatable influence (for example, government charges) is projected to reach the 0.25 percentage point threshold.

Figure 26
Projections of underlying inflation
 (Annual percentage change)

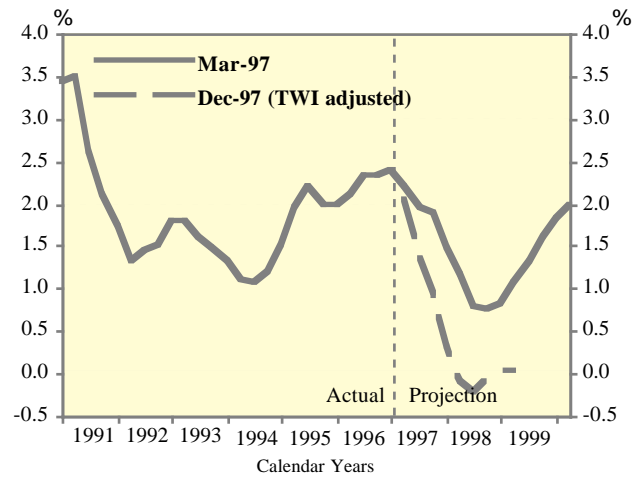


Table 8
CPI inflation projections
 (Percent changes)

		Underlying		CPI ex Credit Services		Headline	
		Quarterly	Annual	Quarterly	Annual	Quarterly	Annual
1995	Mar.	0.5	1.9	0.5	2.6	1.2	4.0
	June	0.6	2.2	0.6	2.7	1.0	4.6
	Sep.	0.3	2.0	0.4	2.2	0.2	3.5
	Dec.	0.6	2.0	0.6	2.1	0.6	2.9
1996	Mar.	0.6	2.1	0.6	2.1	0.5	2.2
	June	0.8	2.3	0.8	2.3	0.8	2.0
	Sep.	0.3	2.3	0.4	2.3	0.6	2.4
	Dec.	0.6	2.4	0.7	2.4	0.7	2.6
1997	Mar.	0.5	2.2	0.4	2.2	0.1	2.2
	June	0.5	2.0	0.6	2.0	0.5	1.9
	Sep.	0.3	1.9	0.3	1.9	0.3	1.6
	Dec.	0.2	1.5	0.2	1.4	0.2	1.0
1998	Mar.	0.2	1.2	0.2	1.2	0.2	1.1
	June	0.2	0.8	0.2	0.8	0.1	0.7
	Sep.	0.2	0.8	0.2	0.7	0.3	0.7
	Dec.	0.3	0.8	0.3	0.8	0.3	0.8
1999	Mar.	0.4	1.1	0.5	1.1	0.4	1.0
	June	0.4	1.3	0.4	1.3	0.4	1.3
	Sep.	0.5	1.6	0.5	1.7	0.4	1.5
	Dec.	0.5	1.8	0.5	1.8	0.4	1.6
2000	Mar	0.6	2.0	0.6	2.0	0.5	1.8

Box 4: The Bank's recent record in projecting underlying inflation

This box examines the Bank's record in projecting underlying inflation over horizons ranging from 1-step ahead through to 8-steps ahead. For example, given a projection published in March 1995, the 1-step horizon represents the difference between the projection of inflation for the year to the March quarter and the actual outturn (published approximately two months after the Bank's projection is finalised). Similarly, the 4-step horizon represents the difference between the projection of inflation for the year to the December 1995 quarter and the actual outturn. For each time horizon three forecast accuracy statistics have been calculated and these are presented in the table below.

Reserve Bank - forecast accuracy statistics, underlying inflation 1992-1996 (percentage points)

	1-step	2-step	3-step	4-step	5-step	6-step	7-step	8-step
No. of Obs.	21	20	19	18	17	16	15	14
ME	-0.03	-0.09	-0.19	-0.28	-0.38	-0.45	-0.50	-0.54
MAE	0.12	0.19	0.28	0.42	0.60	0.60	0.58	0.54
RMSE	0.16	0.25	0.35	0.53	0.73	0.77	0.67	0.62

The mean error statistic (ME) is a measure of bias. The larger the absolute value of this statistic, the more evidence there is of bias. Negative statistics - such as those in the table above - indicate that the Bank has had a tendency to underestimate inflation, particularly over longer time horizons. The mean absolute error statistic (MAE) and the root mean square error statistic (RMSE) are measures of the dispersion of projection discrepancies (the RMSE gives greater weight than the MAE to large discrepancies). The larger these statistics, the less accurate the projections. As would be expected, the MAE and RMSE statistics indicate that the absolute size of the discrepancies increases as the projection horizon increases. This reflects both the greater inherent uncertainty as the horizon increases and the conditionality of the Bank's projections. The latter arises from the Bank's use of technical assumptions, which means that the published *projections* may differ from a true *forecast* that allows for changes in policy.

10. Risk assessment

Our central estimate of the future path of the economy and inflation is subject to uncertainty.

As usual, the projections discussed in this document represent the Bank's best estimate of the most likely outlook for economic activity and inflation, given the assumptions made. The projections, however, are subject to a number of uncertainties. Some uncertainties relate to the policy and non-policy assumptions that underpin the projections. Other uncertainties stem from gaps in our understanding of the structure and parameters governing economic behaviour.

Policy assumptions

A different fiscal policy stance would affect inflation pressures.

Our assumption for fiscal policy is based on the information released by the new Government last December. Although this sets limits to the total package over the period of the Government, the detailed composition of the package and the timing of its incidence still leave considerable scope for variation. The *Budget Policy Statement*, published on 4 March 1997, has altered slightly the timing of the fiscal stimulus, but not its magnitude. As is clear from the profile of projected inflation, the path is very sensitive to the timing and the extent of further fiscal stimuli from mid-1998 onwards.

On the present assumptions, the fiscal expansion is sufficient to close any negative output gap that has opened up and will restart the upward pressures on inflation. As inflation is a non-linear process, increases in fiscal pressure beyond those assumed will have a more than proportionate impact on inflation, while a spreading of the fiscal expansion over a longer period of time could eliminate the positive output gap altogether and hence enable monetary policy to accommodate the change with current monetary conditions.

If instead of just tax cuts there is also to be a package of measures that is successful in raising the overall domestic saving rate, then inflationary pressures will be reduced compared to our projection. The success of a compulsory savings scheme in raising total savings will depend substantially on the design of the scheme. The less people feel that compulsory saving is a substitute for their own saving, the less they will seek to offset its impact. The more domestic saving rises, the

easier monetary conditions could then be relative to those otherwise assumed.

The current account deficit represents a significant source of risk.

Our assumption of a constant nominal exchange rate also ignores any pressure that the continued current account deficit of 5.5 percent (7 percent if the new IMF recommendation on migrants' transfers is implemented) might impose. It is not clear what the equilibrium external balance is but it is unlikely that current account deficits of the magnitude projected will be sustained. If that is the case then there will at some stage be a downward adjustment in the real exchange rate to achieve it. If the adjustment occurs as a result of a fall in the nominal exchange rate, interest rates would be likely to rise, encouraging net saving and hence changing sectoral balances.

A rebalancing of monetary conditions could lead to temporarily higher inflation outcomes.

While a rebalancing of monetary conditions between the real exchange rate and real interest rate should, by definition, have no net impact on inflation two years ahead, the path of inflation could differ in the short run.

The exchange rate has an additional, quicker, effect on the CPI through the impact on the price of imported goods and services. While interest rates may also have a similar rapid effect on asset prices, such as existing house prices - and indirectly on new house construction costs, which are included in the CPI - this effect tends to be more limited. Hence, other things being equal, a switch involving higher interest rates and a lower exchange rate would tend to result in higher inflation in the period six to eighteen months ahead.

Other assumptions

World economic growth could be weaker than we have assumed.

We have used the outlook contained in *Consensus Forecasts* to determine the assumptions for demand and inflation in our trading partners. Although these are a market average, they may well turn out to be astray. Insofar as the world economy picks up less rapidly, this will tend to decrease inflationary pressures.

The level and growth rate of potential output are uncertain.

Potential output is 'unobservable'. Hence, calculations of output gaps and the sustainable growth path depend on the assumptions made and the models of behaviour used. Inflationary pressure on the other hand responds rapidly, and with increasing force, to positive output gaps. With a 'soft landing' projected, there is no clear margin of downward pressure on inflation through a negative output gap to operate on. Thus, both the inherent uncertainties in the level and growth of sustainable non-inflationary output and the small margin for error contribute a clear risk to the projection.

Incomplete knowledge of economic behaviour

Inflation risks from the housing market have been carried into the central projection.

Inflation in the housing sector has been the most obvious outlet for inflationary pressure in the current cycle. With the soft landing, the housing market has not peaked with clear excess supply. Therefore, with significant falls in house prices not seen as being likely, the housing market is not expected to deliver significant downward pressure on inflation. Moreover, given the recent fall in interest

rates, significant house price inflation could readily reoccur. Given the unpleasant surprises of the past, we have deliberately taken a cautious view in forming these projections. Should a switch in the mix of monetary conditions lead to a noticeable rise in mortgage interest rates, then the contribution to inflation from the housing sector could, in turn, be noticeably lower than we have projected.

As always, uncertainties surround the exchange rate pass-through.

In view of the continuing incomplete pass-through from the exchange rate to the CPI, we have taken a more cautious approach on this occasion, and lengthened the lags with which exchange rate appreciation impacts on the CPI. Hence, if the exchange rate does indeed fall, the consequences for increased inflation will be rather more muted than we have normally assumed. Box 5 discusses the implications for inflation if our assumption is wrong and the long-run pass-through is less than we assume.

Balance of risks

The risks are balanced over the period.

The risks around the central projection are seen as being reasonably evenly balanced.

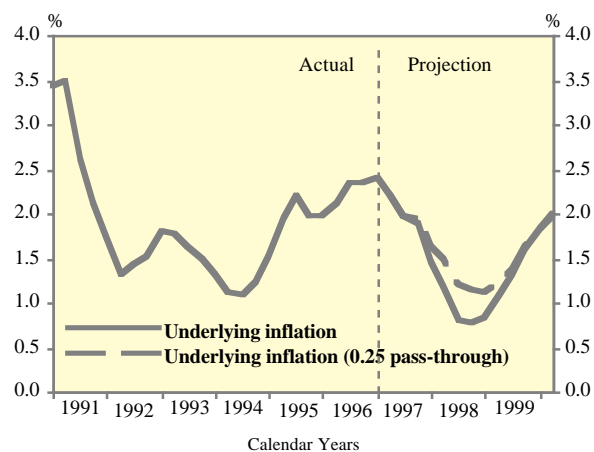
Box 5: Exchange rate pass-through and inflation

Over recent quarters the apparent pass-through from the appreciation of the TWI has been less than expected. This could mean that either (a) the long-run pass-through coefficient is less than expected, or (b) the lags with which the exchange rate effect is passed through into prices have lengthened due to the level of excess demand in the economy and expectations of a short-term reversal of at least part of the recent appreciation.¹ The latter explanation is the one assumed in these projections.

So as to illustrate the implications of our assumption, the figure below illustrates the inflation outlook if the correct explanation is that the long-run pass-through coefficient is actually lower than we have assumed (in this case, 0.25 instead of the 0.3 assumed in these projections). As can be seen, the lower pass-through coefficient would result in a stronger inflation profile over 1997 and 1998. This is because greater weight would be given to relatively fast-growing unit labour costs, while less weight would be given to the deflationary impact of falling import prices.

An important qualification to this analysis is that no account has been taken of second round effects, whereby higher inflation subsequently causes higher wage inflation and this further increases inflation. Thus, the profiles shown in Figure 27 probably under-estimate the full impact of a lower pass-through coefficient.

Figure 27
Underlying inflation scenario
(Annual percentage changes)



¹ A third explanation has been that the initial appreciation of the exchange rate represented a reversal of previous temporary under-valuation and therefore that 'lower-than-normal' pass-through occurred as previously squeezed profit margins were returned to 'normal' levels. Clearly, the more the exchange rate appreciates the less relevant this explanation becomes.

These projections are produced primarily for use within the Reserve Bank. The Bank accepts no responsibility for any use which is made of these projections.

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