Exchange rates, export prices, and the Reserve Bank's Monetary Conditions Index

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An address to the Counties Kiwifruit Growers Association, Pukekohe, 22 August 1997

Mr Chairman, I am delighted to be back in Pukekohe, though I must admit I'd rather be next door on my orchard instead of in here, explaining the impact of monetary policy on the fruit-growing industry!

Two months ago, when you asked me to speak this afternoon, you asked me to focus on exchange rates. In particular, you suggested I speak about 'fluctuations and long-term trends in exchange rates and their effects on export commodity pricing'. I am happy to do that, but I also want to make a few comments on the Reserve Bank's Monetary Conditions Index, both because it is relevant to the subject you have asked me to address and because the MCI has become the subject of a good deal of public discussion and debate over the last month or two. Indeed, some claim it is only the Reserve Bank's obsession with the MCI that has seen exchange rate and interest rates pushed around in a rather volatile manner over the last couple of months.

The exchange rate

First let me talk a little about the exchange rate. Here the concerns seem to be partly about *fluctuations* in the exchange rate and partly about the *long-term trends*, as your suggested subject for my speech indicates.

I have to say that I do not have a great deal of sympathy for those who complain about the *fluctuations* in the exchange rate, and that for two quite different reasons. First, and most obviously, there is now a very well-developed market in forward foreign exchange contracts, so that it is readily possible for exporters to fix the exchange rate at which they sell their products long before they actually want to repatriate the proceeds to New Zealand. Exporters may, of course, choose not to use that market and instead gamble that they might get a more favourable exchange rate at some stage in the future. They should be free to make that choice. But it is important to recognise that they are deliberately taking on foreign exchange risk in the hope of getting something better in the future. They are not obliged to gamble in this way.

This point is perhaps particularly relevant at the moment, when a number of farmers are lamenting the fact that, while the exchange rate is now much more attractive, that doesn't help farmers because few have stock to sell at the moment. But there is nothing at all stopping farmers who have no stock to sell, or meat companies on their behalf, from buying foreign exchange forward at the currently prevailing rates, and locking in current exchange rates. By doing that, they eliminate the risk that the exchange rate may rise before their stock is ready for sale, but of course they also pass up the additional benefit they might get if the exchange rate were to fall further.

Secondly, although the New Zealand dollar has been subject to quite marked fluctuations over the last few months, by and large the New Zealand dollar is not a volatile currency by the standards of other floating rate currencies. Certainly measured on a trade-weighted basis, the New Zealand dollar has in recent years been less volatile on a week-to-week basis than, say, the Australian dollar, the US dollar, the pound sterling, or the Japanese yen.

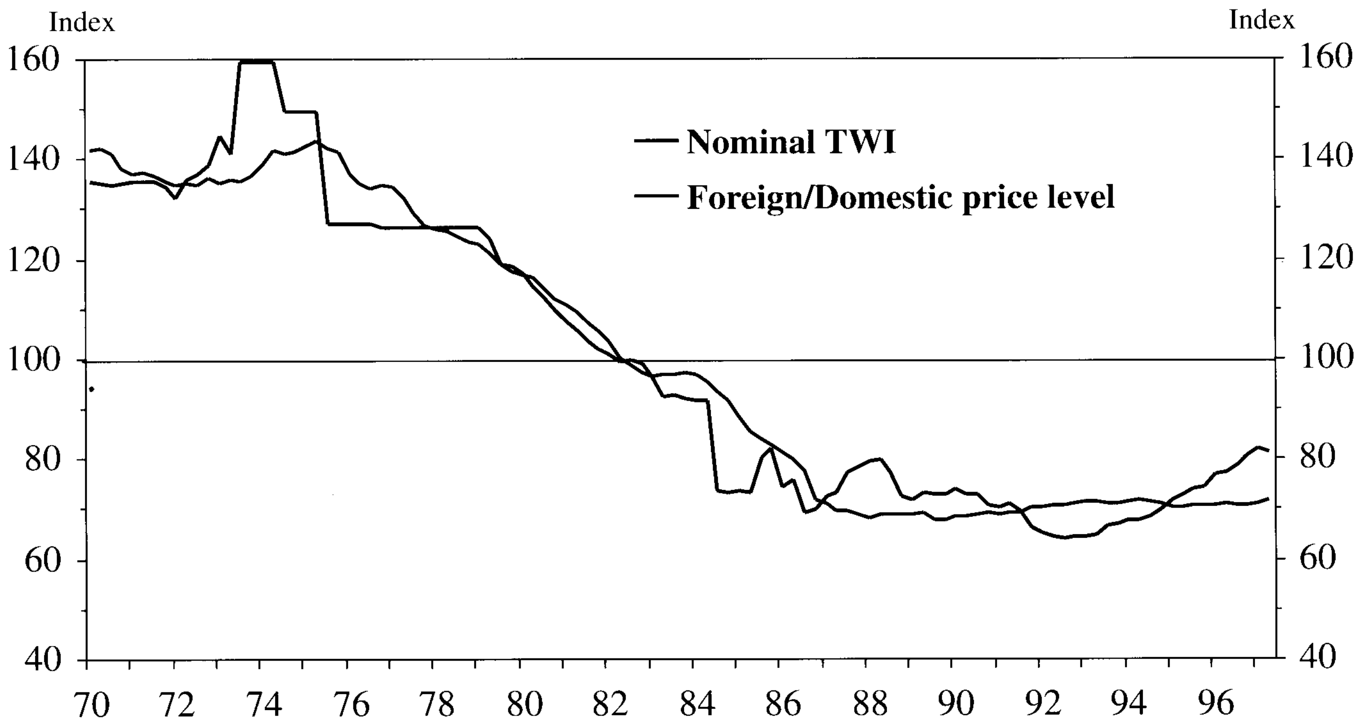
What about the longer term trends? Since at least the beginning of the seventies, the trade-weighted measure of the New Zealand dollar has tended to move to reflect differences between inflation in New Zealand and inflation in our trading partners (graph 1).

In other words, when inflation was higher than in our trading partners, the New Zealand dollar had a tendency to depreciate. When inflation was lower than in our trading partners, the New Zealand dollar had a tendency to appreciate. Occasionally, the exchange rate would depreciate a little faster than seemed warranted by a relatively poor inflation performance in New Zealand, and exporters enjoyed the experience. Occasionally, as in the period from early 1993 to early 1997, the exchange rate appreciated faster than seemed warranted by a relatively good inflation performance, and exporters found the experience anything but enjoyable (graph 2).

If historical relationships hold, one would expect the New Zealand dollar to move broadly in line with inflation differentials over the longer term, and a few months ago this led a number of commentators to suggest that, at that time, the New Zealand dollar was clearly over-valued. Last December I also expressed the view that, at that time, the New Zealand dollar did indeed seem somewhat over-valued on that basis, though it should be noted that, to the extent that productivity growth is higher in New Zealand

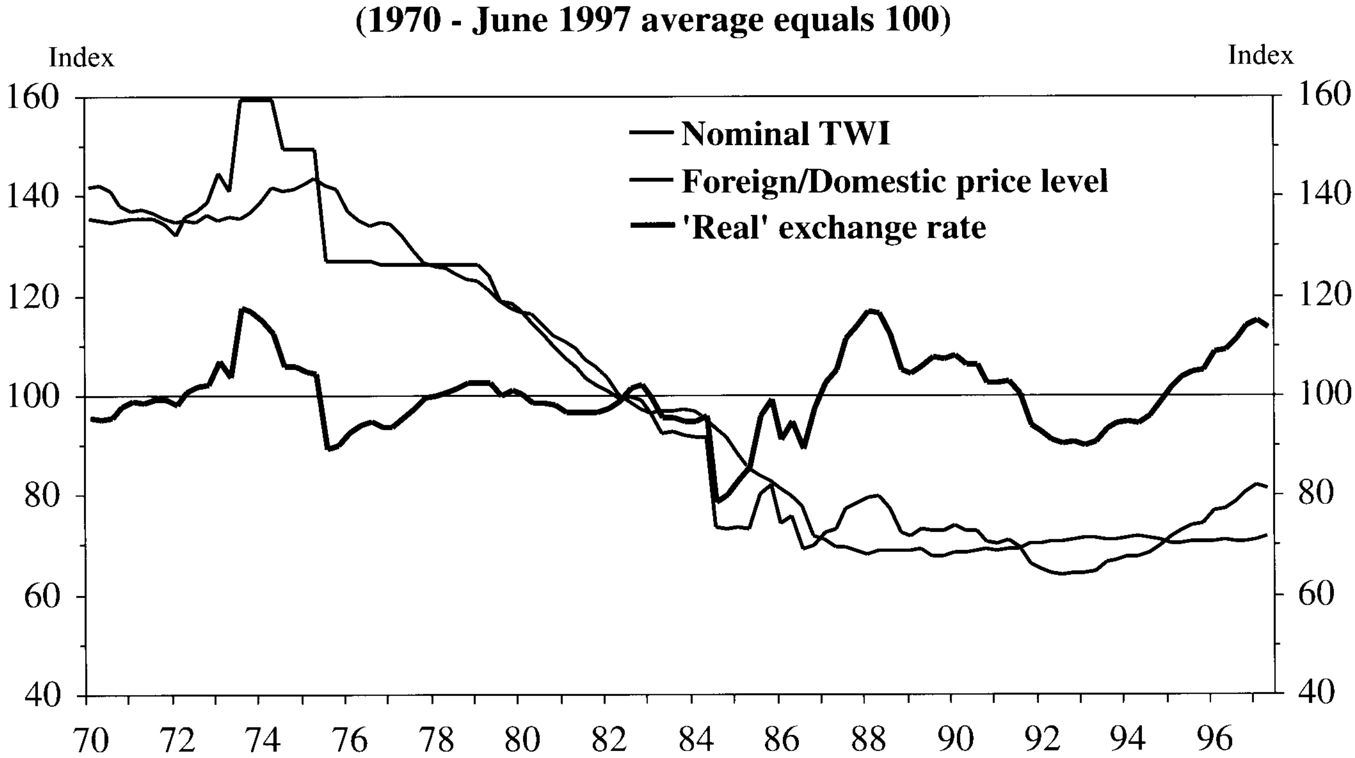
Graph 1: Relative Consumer Prices and Nominal TWI

(1970 - June 1997 average equals 100)



Graph 2: Nominal and 'Real' Trade-Weighted Index

(1970 - June 1997 average equals 100)



than in our trading partners, one would expect to see the exchange rate rise somewhat faster than inflation differentials alone would suggest.

I have no difficulty at all in acknowledging the fact that the appreciation in the New Zealand dollar from its floor of around 53 (on a trade-weighted basis) in January 1993 to 69.3 in March 1997, an increase of some 30 percent over just four years, put significant pressure on a great many exporters. But four points need to be made in qualification.

First, it is very likely that an exchange rate of 53 on a trade-weighted basis was as unsustainable as an exchange rate of 69.3. Neither represents an 'equilibrium' level of the exchange rate, so to measure exchange rate appreciation from that artificially low level risks creating quite a false impression.

Secondly, while acknowledging the pressure which the rising exchange rate from 1993 to early 1997 placed on exporters, I am bound to express a degree of cynicism about the way in which some producer boards have described this impact. To hear some tell it, the impact of the rising exchange rate on the *gross* incomes of farmers and orchardists is the same as the impact of the exchange rate on their *net* incomes, and, of course, that is not correct. Granted, our land-based export industries are not heavy users of imports, but they do use diesel, they do use tractors, they do use fertilisers, and they are heavily affected by the costs of transport to and from the farm gate. And from their net incomes they still spend money on petrol for the family car, they still buy clothes, they still buy other goods which are imported. The New Zealand dollar price of all these items would have been significantly higher over the last few years had it not been for the appreciation of the currency. Indeed, it is very likely that wage increases would also have been significantly higher if there had been no currency appreciation. So while the increase in the New Zealand dollar in recent years has undoubtedly had a severe impact on gross farm incomes, the impact on farmers' living standards was rather less severe.

Thirdly, while the exchange rate appreciation has clearly made matters worse, the basic problem facing our land-based exporters is that the inflation-adjusted, or real, price of many of the items which they produce has been declining, and that for a long period. The New Zealand Meat and Wool Boards' Economic Service tells me that between 1948 (*prior* to the Korean War boom) and 1996, the inflation-adjusted price of lamb fell by 45 percent in the US market; the price of dairy products fell by 55 percent; the price of beef fell by 69 percent; and the price of wool fell by 79 percent. I don't know that anybody was noticing the price of kiwifruit in the US market in 1948, but I can still recall that in 1982, just 15 years ago, the orchard-gate price of New Zealand kiwifruit was $11 per tray. Nobody yet knows what we will realise in 1997, but if the orchard-gate price for this year's crop is, say, $4.30 per tray, that will be an inflation-adjusted fall in the orchard-gate price of some 85 percent in just 15 years - and that over a period during which the New Zealand dollar has fallen quite substantially against the currencies of virtually all our trading partners, and especially against the Japanese yen and the German mark, the two currencies of most direct relevance to kiwifruit exports. The basic reality is that the *market* price of kiwifruit has fallen substantially over that time.

And in case New Zealand exporters feel hard done by by this reality, remember that very substantial falls in inflation-adjusted prices are common for most commodities, and indeed for a great many other goods and services as well. Productivity improves, and international competition often ensures that the benefit of that improvement is passed on to consumers, rather than retained by producers. Reflect on the huge fall in the real price of computers - a fall which dwarfs the falls suffered by New Zealand land-based exporters - or the price of television sets, or of motor vehicles, or of international air travel, or of long-distance telephone calls. Large price falls are by no means unique to the products which New Zealand exports. To remain viable, all producers must be constantly seeking new ways to improve productivity or add value, and if they do that successfully, they can maintain profitability despite a trend decline in prices.

Finally, apart altogether from the tendency for the prices of many commodities to decline in the long term, commodity prices tend to be volatile, and in recent years this volatility has tended to swamp the impact of exchange rate trends. The best illustration is the experience of beef farmers in the three years to the middle of 1996: of the fall in the farm-gate price of bull beef over that period, more than three-quarters was caused by a fall in overseas market prices, and less than one-quarter by the rise in the exchange rate. In other words, the fall in the market price of bull beef was substantially greater in its impact on farmers than the effect of the increase in the exchange rate. Our land-based exporters operate in inherently volatile markets, and would face major swings in prices even if, in some way, the New Zealand dollar could be held absolutely stable. This should influence what can sensibly be paid for farming and orcharding assets.

So yes, monetary policy does have an impact on the exchange rate, but that in turn has much less impact on exporters' net incomes than on gross incomes, and has been of very much less significance to land-based exporters than the fluctuations in international commodity prices and the long-term decline in the real prices of many of the commodities which New Zealand exports.

The Monetary Conditions Index

But what of the Reserve Bank's Monetary Conditions Index? Is the MCI, as some have suggested, really to blame for much of the current economic slowdown, or at the very least for the sharp increase in interest rates recently?

Before answering those questions, it is worth recalling briefly that, once every three months, the Reserve Bank does a comprehensive projection of the New Zealand economy and of inflation for a period of two or three years. That projection takes into account all the information available to the Bank at that time - the official statistics covering GDP, prices, wages, employment, imports, exports, and all the rest; the data collected by the Bank itself on the money and credit aggregates, and the path of interest and exchange rates; the survey data covering business and consumer confidence; the views expressed to us, formally and informally, about individual businesses and the economy; and much more. At the end of that process, we reach a view on how firm monetary conditions need to be to keep inflation moving towards the middle part of the 0 to 3 percent inflation target we have agreed with Government.

But of course neither we nor any other central bank can control the *mix* of monetary conditions. In other words, we can tighten monetary conditions, but we can not determine whether that tightening takes the form of an increase in interest rates with little or no increase in the exchange rate; or an increase in the exchange rate with little or no increase in interest rates; or an increase in the exchange rate with a decrease in interest rates; or an increase in interest rates and a fall in the exchange rate. The mix depends on the perceptions and reactions of a great many people, here and abroad, and indeed on what other central banks are doing or are expected to do.

What to do? In a small open economy like New Zealand, it is impossible to ignore the fact that monetary policy affects inflation through *both* interest rates and the exchange rate, and for a number of years we have factored that into our policy setting. What the Monetary Conditions Index seeks to do is to give the public and financial markets a *broad* indication of how we see the relative impact of interest rates and the exchange rate on medium-term inflation with a 'rule of thumb' combining both. Nobody can be dogmatic about the precise nature of this relative impact - it clearly differs between economies depending on the importance of international trade, and almost certainly varies depending on the stage of the economic cycle. On the basis of research to date we believe it is reasonable to suggest that a 1 percent increase in 90 day interest rates has roughly the same effect on inflation, in the medium-term, as a 2 percent increase in the (trade-weighted) exchange rate. This ratio is particularly helpful in helping us to assess how the overall degree of monetary restraint is evolving when interest rates and the exchange rate are moving in opposite directions, as has often been the case over the last year.

In June this year, we expressed this relationship in numerical form, called it the Monetary Conditions Index, and indicated that our projected inflation track was based on monetary conditions being at 825 on that Index through the September quarter.

Has this increased openness been constructive or destructive? On balance, I have no doubt that it has been constructive. Financial markets now know explicitly what in the past they could only guess at, namely how we 'translated' movements in exchange rates into movements in interest rates in assessing their effect on inflation. In the last few months, we have experienced the sharpest decline in the New Zealand dollar since late 1991 without any kind of drama or crisis. Interest rates have adjusted upwards to offset the effect of that depreciation on the medium-term inflation rate, and that with only a couple of brief comments from the Reserve Bank. Of course, a sharp fall in the exchange rate is almost inevitably going to be associated with rising interest rates, since the fall is likely to prompt many investors to want to withdraw funds from New Zealand investments, and this inevitably leads to higher interest rates. But the fact that interest rates moved to keep the MCI broadly unchanged - certainly over the sharpest movements in the exchange rate - suggests that the system has worked well. For the record, I think the MCI is working at least as well as other approaches - better in some respects - and I am in no hurry to change it.

Let me put this another way. I'm sure that if the Reserve Bank had not published an MCI actual monetary conditions would have evolved in a broadly similar way, but probably with more anguish. Without the early interest rate reaction, the exchange rate fall would have left monetary conditions very much looser than we wanted. We would then have had to move to recover the lost ground by tightening policy, probably requiring specific policy actions. In other words, the MCI is only an indicator. It isn't driving events in a substantive way, so people blaming the MCI are misdirecting their complaints. Give me stick, if you want, for misreading inflationary pressures out there, but 'don't shoot the messenger', for that's all the MCI is.

What of criticism that the Bank has been operating the MCI mechanistically, or robotically, and thus causing excessive volatility in financial markets? Should the Bank have been more willing than it has been to allow actual monetary conditions to diverge from its announced 'desired' conditions of 825, or, alternatively, should we have adjusted policy instruments to ensure that actual conditions kept within the plus or minus 50 points of 825 announced as 'desired' on 27 June?

It is perhaps worth recalling what I said on 27 June, in releasing our latest *Monetary Policy Statement*:

> 'It is clear that deviations from desired monetary conditions can be very large indeed without threatening either edge of our inflation target if those deviations are of relatively short duration. This suggests that the Bank should be relatively tolerant of quite large deviations from desired. On the other hand, large deviations, even for relatively short periods, may raise doubts - either about the Bank's determination to achieve the inflation goals we have been set or about the possibility that the Bank, in accepting those large deviations, may have changed its view of desired conditions. These doubts can create uncertainty, and that uncertainty has real costs, both short-term and long-term. We already allow monetary conditions to move within a range, without reaction from the Bank, which is at least as wide as that allowed in other developed countries.
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> 'I am reluctant to be too precise about how much deviation we are willing to accept and for how long. Much will depend on the circumstances in which the deviation occurs. We may, for example, be more tolerant of deviations which appear to arise out of sharp movements in overseas exchange rates, where local interest rates or exchange rates may take a brief period to adjust. We may be more tolerant of deviations during the weeks immediately preceding our next quarterly inflation projection, since it is at that time when our last comprehensive review of desired conditions is, by definition, getting most dated. We are likely to be less tolerant if monetary conditions change very rapidly, and appear to be building some momentum, without any obvious explanation in terms of overseas exchange rates or changed prospects for inflation.
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> 'As a very approximate guideline, we would expect actual monetary conditions to be within a range of plus or minus 50 MCI points from desired in the weeks immediately following a comprehensive inflation projection. As more data comes to hand over the ensuing three months, and as our last comprehensive inflation projection recedes into history, we may be rather more tolerant. But this is not, repeat not, a binding rule which the market can expect us to follow under all circumstances, and those expecting us to do so are likely to be disappointed.'

That is what I said on 27 June, and looking back with the wisdom of hindsight I think the comments have stood the test of time rather well. Did we signal a tight band of plus or minus 50 points around 'desired'? Hardly. On the contrary, we made it clear that we would judge monetary conditions in the light of emerging data, and the factors we believed were driving conditions. Should we therefore leap to change the target for settlement cash as soon as conditions stray by more than 50 points from the designated level? Absolutely not, and nobody should expect us to do so.

My only regret is that I did not mention, as one reason for being tolerant of deviation of actual monetary conditions from desired monetary conditions, the complication created by a *sharp* change in the mix of conditions. Clearly, the Index is based on the assumption that a 1 percent movement in interest rates is equivalent, in medium-term effect, to a 2 percent change in the exchange rate, and that is our best estimate at this stage. But it is only an estimate, and we recognise that the relationship may well change over time and in response to very sharp movements in either interest or exchange rates. In the jargon, the relationship may not be linear. It is partly for this reason that we have been willing to accept quite a marked divergence between actual and desired conditions in recent weeks.

It is important also to recall that, as indicated a moment ago, we can not control the mix of monetary conditions. This was very clearly indicated between September 1996 and March 1997. Over that period, 90 day interest rates fell from around 10 percent to around 7.5 percent, while the exchange rate rose from around 66 on the Trade-Weighted Index to over 69. On the face of it, this period of rising exchange rate and falling interest rates was the very reverse of what might have been desirable - given that there was already little or no inflation in the export and import-competing sectors of the economy, and plenty of inflation in the domestic sectors - and I expressed my unhappiness about this mix on several occasions, all to no avail. For a whole host of reasons - perceptions of the likely trend of monetary policy in New Zealand and overseas, perhaps concerns about the balance of payments deficit, perhaps general concern about currencies in this part of the world - the mix has changed quite sharply in the last few months, with an increase in interest rates, which has taken them about half way back to where they were last September, and a sharp fall in the exchange rate. *Overall*, conditions have eased considerably, and I am sure that there won't be an exporter in the country who is not a good deal happier with the present mix than with the one we had three or four months ago.

But aren't monetary conditions still too tight, given the low level of business and consumer confidence, the general flatness of the economy, and the fact that, on the Reserve Bank's own figures, we will have inflation at or slightly below 1 percent by the end of this year and into 1998?

In less than a month, the Bank will be publishing its next comprehensive inflation projection, so I don't want to give a substantive answer to that at this stage. But let me just remind you of a couple of relevant points.

- It is hardly surprising, or a matter for regret, that our June *Monetary Policy Statement* projected that inflation would fall to 1 percent by the end of this year: through all of last year, until 10 December, we were targeting inflation at between 0 and 2 percent, with a mid-point of 1 percent, because that's what our Policy Targets Agreement with Government required at that time. We were battling to reduce inflation which had been somewhat above the top of that range throughout 1996. Given that it takes a minimum of 12 months for monetary policy to have its impact on inflation, it would be surprising if inflation were *not* projected to be moving towards 1 percent at the end of this year.

- The inflation projection which the Bank published at the end of June was not only based on monetary conditions being around 825 on the MCI during the September 1997 quarter, it was also based on a particular *combination* of interest rates and exchange rate. We assumed that, during the September quarter, the trade-weighted exchange rate would average around 67.3, and 90 day interest rates would average around 7 percent. We also explicitly recognised that if the mix of conditions changed, the *short-term* track of inflation could be different. With the exchange rate in fact significantly lower than assumed in the June *Monetary Policy Statement*, and interest rates significantly higher than assumed, it is possible that the immediate inflation track may be a little higher than projected in June because of the impact which the lower New Zealand dollar may have on the prices of goods like television sets, cars, and other imports. In other words, a lower dollar may increase inflation more quickly than higher interest rates will reduce it.

- Although there are many people who feel that monetary conditions are inappropriately tight, and some who just feel that the combined wisdom of financial markets is more likely to be right than is the Reserve Bank, it is worth recalling that for the first four months of 1997, until the very end of April, financial markets kept monetary conditions appreciably tighter than the Bank had indicated was necessary or appropriate, despite our saying that we would be happier if conditions were somewhat easier. In other words, financial markets are not infallible. It is interesting that in the latest *Consensus* survey of New Zealand forecasters, representing views in mid-July 1997, 39 percent felt that conditions were unduly firm, but 54 percent felt that they were about right - and conditions have eased somewhat since that survey was conducted.

- Monetary conditions have eased substantially over the last six or eight months - from an average of 1000 on the MCI in the December 1996 quarter to an average during the first half of August of 730. Put in more familiar terms, conditions have eased by the equivalent of a 2.7 percent fall in interest rates with unchanged exchange rate; or by the equivalent of a 5.4 percent fall in the exchange rate, with unchanged interest rates. This is a considerable easing in monetary conditions, which will not have its main effect on activity and inflation until well into 1998 - at about the time the economy is also experiencing a strong stimulus from reduced tax rates and increased government expenditure. In other words, the suggestion that the Reserve Bank has been braking the economy in recent months is factually wrong. In fact, over recent months the opposite is true.

We will, of course, be weighing all these factors and more in reaching our judgement for the appropriate level of monetary conditions in the December quarter. We will publish our considered judgement on 18 September. Unfortunately, given the long lags between actions taken by the Reserve Bank today and the impact of those actions on inflation, nobody will know until at least the second half of next year whether we should have eased rather more in June 1997, or indeed whether we should have kept things a little firmer.

Of one thing you can be certain. We will do everything in our power to keep inflation within the target which has been agreed with Government. That will not guarantee you a profit in fruit-growing, or in exporting more generally. It will, however, be the best contribution which the Reserve Bank can make to the creation of an environment where you and others can make rational investment decisions, to the ultimate benefit of all New Zealanders.