



BANK OF ENGLAND

# Speech

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## Household Indebtedness, the Exchange Rate and Risks to the UK Economy

Speech given by

Dr Sushil Wadhvani, Member of the Monetary Policy Committee, Bank of England and Visiting Professor at the City University Business School and the London School of Economics

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## **SUMMARY**

### **1 RISKS FROM GROWING HOUSEHOLD INDEBTEDNESS**

While the current rate of growth in household debt is clearly unsustainable, the vulnerability of the economy to rising debt can be overstated. Debt servicing ratios are below average, and the debt-assets ratio has actually fallen over the last decade. The inflation-adjusted savings ratio is above its long-term historical average, and the rise in the debt-income ratio might be a by-product of the move to a low inflation environment. While the rise in debt poses some clear risks, it is important that we do not exaggerate them.

### **2 THE EXCHANGE RATE AND FUTURE INSTABILITY – SOME LESSONS FROM DOWN UNDER**

There is a concern that growing household debt must ultimately undermine the exchange rate, which will then be associated with a sharp rise in inflation and interest rates, thereby precipitating a crash in house prices and consumption.

There are, though, other possibilities. Both Australia and New Zealand have experienced significant exchange rate depreciations at a time when household indebtedness was rising strongly. So far, the impact on consumer price inflation has been less than would have been suggested by past historical relationships, with inflation expectations, non-tradeables inflation and unit labour cost growth remaining benign. Changes in interest rates have been relatively modest, and, over the period, house prices have grown. Unemployment has continued to fall in New Zealand, and Australia registered 4% real GDP growth in 2001 despite the global slowdown. The exchange rate depreciations have aided an improvement in their underlying current account positions. So far, their experience suggests that we may similarly avoid a 'bust', though, of course, we shall need to remain vigilant.

### **3 HIGH DEBT, AN OVERVALUED EXCHANGE RATE AND APPROPRIATE MONETARY POLICY**

Another argument is that the risks posed by debt and the exchange rate should lead the MPC to hold interest rates higher than is necessary to hit the 2 year-ahead inflation target. I find this argument to be unconvincing, because such a policy might lead to an even higher exchange rate, which might exacerbate current imbalances and potentially increase future inflation volatility. Moreover, a high interest rate policy might sufficiently weaken the corporate sector such that some future adverse development could increase unemployment more than would otherwise have been the case.

## **INTRODUCTION**

Over the last 2 years, the world economy has been subjected to some significant disturbances. Global share prices fell, notably in the technology-related sectors. Then, we had the tragic events of September 11, with its associated impact on confidence.

In recent weeks, sentiment appears to have improved significantly, with a variety of business confidence surveys displaying a notable rise. The sharp reduction of inventories that followed the September tragedy obviously could not endure, and, in a variety of countries, consumption spending remained relatively resilient. Consensus forecasts for global economic growth have been revised up in recent weeks, and there are some tentative signs that corporate investment spending in the US may not be as weak in 2002 as many of us had feared. If the economy-wide capital stock overhang proves to be a little smaller than the consensus had feared, then it is not implausible to expect current forecasts for global economic activity to be revised upwards further. On the other hand, the downside risks to global activity remain. For example, the recent rise in the oil price is unhelpful, and events might take it rather higher. However, the resilience of the global economy to the shocks of the last two years has been awesome.

With the global economy looking better than one might have expected last Autumn, I intend to devote some time to discussing some of the other key risks confronting the UK economy – specifically, the growth in household debt and the vulnerability of the exchange rate.

### **1 THE GROWTH IN HOUSEHOLD INDEBTEDNESS**

A great deal of attention has focused recently on the issue of “imbalances” in the UK economy. Concerns have related to the rather high pace of growth of household indebtedness, which may be associated with a worsening of the current account deficit that could eventually trigger a sudden correction in the exchange rate. Any such move might imply higher future inflation and could lead to a rise in interest rates. Some believe that this could lead to a ‘bust’ with a housing market crash.

While the current rate of growth in household debt clearly cannot be sustained indefinitely, there may be reasons to believe that the concerns about the vulnerability of the macro-economy to rising household debt might, at this point, be overstated. There has been a pick-up in recent years in the debt-income ratio in the UK, but, as highlighted in Table 1A below, its level is not out of line with that in many other developed economies, and the recent rate of increase has been considerably higher in some economies (eg Australia and New Zealand).<sup>1</sup> Further, unlike in the US, household debt servicing ratios have been relatively stable over the last three years despite the rise in debt (Chart 1), and are still below their long-term average.

**TABLE 1 A**  
**HOUSEHOLD DEBT TO INCOME RATIOS**

Per cent	1990	1995	2000	1990-2000 change	1995-2000 change
US	87.3	94.3	106.0	18.7	11.7
Japan	130.7	137.6	132.2	1.5	-5.4
Germany	70.0	100.6	115.1	45.1	14.5
France	88.3	63.7	70.8	-17.5	7.1
UK	115.7	106.4	117.2	1.5	10.8
Australia	52.4	72.4	102.6	50.1	30.1
New Zealand	57.3	81.8	111.3	54.0	29.5

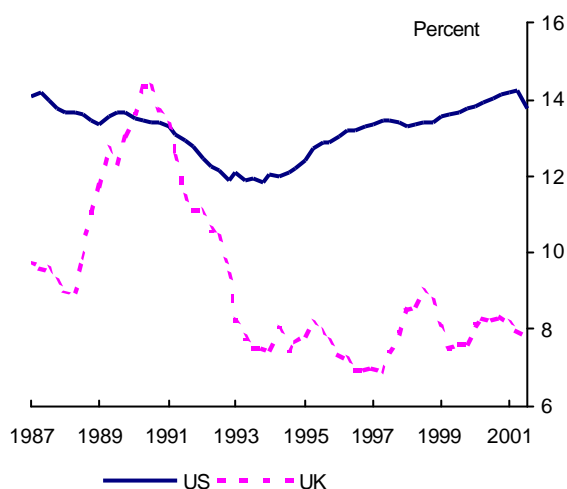
Source: OECD; National Sources for Australia and NZ.

In order for the household debt servicing ratio to return to the peak seen in the early-1990s, debt would have to almost double at current levels of interest rates or, at the current level of debt, interest rates would need to increase to almost 11%. Of course, it is possible to envisage circumstances where interest rates might need to rise considerably, but, in my personal view, the rise in the debt-income ratio should make us more cautious about doing so.

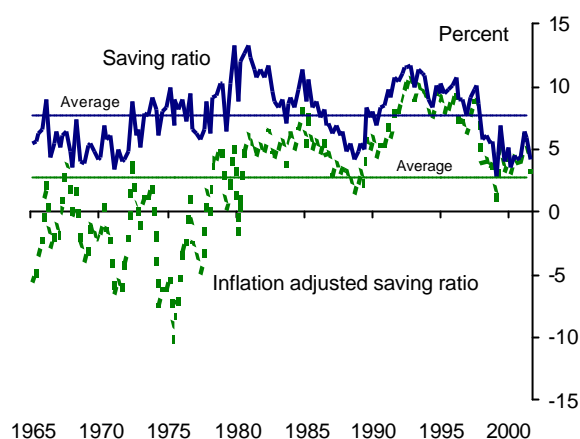
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<sup>1</sup> Of course, the fact that the rise in the debt-income ratio may have been greater in other countries is not necessarily reassuring – see, eg Brash (2002) for some of the risks it poses to the New Zealand economy.

**Chart 1: US and UK household debt servicing ratios**



**Chart 2: Household Savings Ratios**



**TABLE 1 B  
HOUSEHOLD DEBT TO FINANCIAL ASSETS RATIOS**

Per cent	1990	1995	2001	1990-2001 change	1995-2001 change
US	25.0	23.6	23.8	-1.2	0.2
Japan	33.4	32.7	27.1	-6.3	-5.6
Germany	34.9	42.5	41.1	6.2	-1.4
France	40.3	25.8	17.3	-23.0	-8.5
UK	35.6	24.9	24.4	-11.2	-0.5
Italy	12.9	12.9	12.9	0.0	0.4
G6	30.4	27.0	24.4	-5.9	-2.6
Australia	30.5	36.1	40.3	9.8	4.2
New Zealand	39.1	47.3	64.5	25.4	17.2

Source: Brash (2002), national sources.

It is also worth observing that the debt – financial assets ratio in the UK has fallen during the 1990s from just over a third in 1990 to around one-quarter in 2001. (See Table 1B) In this context, note that the debt-assets ratio in the UK is in line with the average ratio for the G6, and that, indeed, the debt-assets ratio rose during the 1990s in some other countries including Germany, Australia and New Zealand.

The fall in the household savings ratio to a level below its historical average has also led to some concern about future consumption prospects. But, the recent strength of consumption may, at least in part, be due to a low inflation environment. First, there is a measurement issue. The inflation adjusted savings ratio is above its historical average (Chart 2).<sup>2</sup> Second, there is a behavioural issue. It is plausible that the absence of index-linked mortgages implies that consumers react more significantly to fluctuations in nominal interest rates (with real interest rates held constant) than standard economic theory might imply. Certainly, back in the 1970s, economic forecasters were initially surprised by the weakness of consumption when inflation rose. The absence of index-linked mortgages implied that current mortgage servicing costs rose steeply as inflation increased, and many consumers were forced to cut back even though the real duration of the loan fell,<sup>3</sup> ie the so-called front-end loading problem. Now, the significant fall in inflation has led to the situation being reversed, whereby the fall in current mortgage servicing costs has enabled households who were previously liquidity constrained to consume more now. If this hypothesis is valid, one might expect lower inflation and nominal interest rates to be associated with a gradual rise in the debt-income ratio to a new, higher equilibrium level, at which point this process could come to a halt relatively autonomously.

However, one concern that some of us have is that not all consumers are able to distinguish between “real” and “nominal” interest rates. Consequently, it is possible that some individuals might, in the years to come, be surprised by the fact that debt repayments as a fraction of income do not fall as quickly as they did in a high inflation period. At that point, one would expect consumption to adjust, though it is unlikely to be abrupt.

Also, spending on durables and semi-durables has grown at a higher rate as compared to overall consumption over the last year. Thus, the share of consumption accounted for by durables has surged recently, perhaps because of a desire by households to invest in physical rather than financial assets or because of falls in the relative price of these goods. Durables and semi durables provide consumers with a flow of services

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<sup>2</sup> The very low inflation-adjusted savings ratios in the 1970s is partially attributable to unanticipated inflation. However, note that the inflation-adjusted savings ratio was also low in the 1960s.

<sup>3</sup> See, eg. Flemming (1976) for an excellent discussion of this issue.

over a number of future periods, unlike non-durables which are consumed immediately. Data on household consumption record the value of new purchases. A more appropriate measure of consumer spending might adjust for this by dividing spending on durables and semi durables by the life time of those goods. A saving ratio computed using such a measure of consumption shows a less marked fall than the conventional ratio.

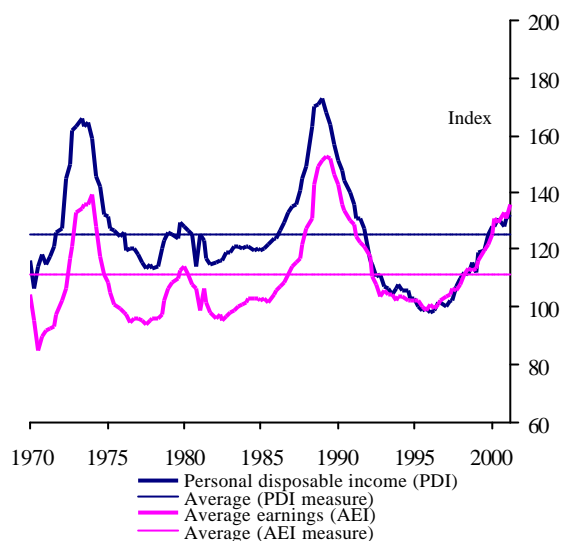
Turning to the housing market, the house price to average earnings ratio is considerably higher than its historical average (Chart 3) and this, at first sight, is worrisome. However, the ratio of house prices to total personal disposable income is only marginally higher than its post-1970s average and is considerably lower than during the late-1980s. This might be a better guide to market valuation as, for example, it does allow for dual-income households. It must be noted that even on this measure, London house prices look stretched. But some other measures of housing affordability – for example, the interest cost of servicing a mortgage relative to income – remain below their historical average (Chart 4), for the UK and London alike. This is obviously intimately related to our earlier discussion about the effects of low inflation. In the absence of index-linked mortgages, it is likely that lower inflation might boost the equilibrium house price-earnings ratio because it reduces the initial cashflow burden associated with a mortgage. Hence, at least some of the recent rise in house prices may well represent an adjustment to a new equilibrium. Having said that, of course, the current high rate of increase in house prices clearly cannot be sustained for very long, and we shall remain vigilant.

Although I have offered some reasons as to why some of those who fret over the level of household indebtedness might be overstating the risks to the economy, there is no getting away from the fact that the current rate of growth of consumer debt is obviously unsustainable. Moreover, if things were to go wrong for some other reason, and unemployment were to rise, the high levels of household debt could make the situation worse than it might otherwise have been.

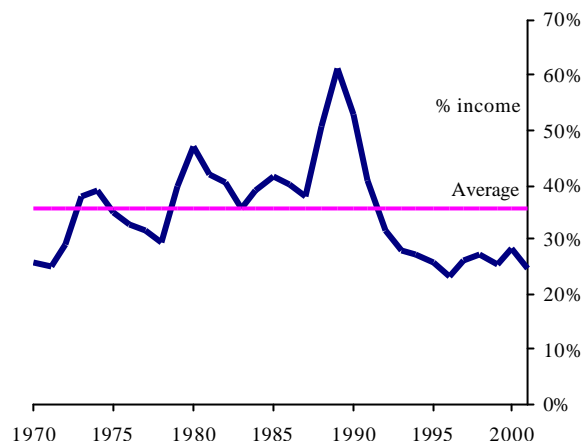
Of course, we shall need to continue to monitor the situation.



**Chart 3: House prices relative to income**



**Chart 4: Housing affordability <sup>(1)</sup>**



<sup>(1)</sup> Source: BOE estimate based on a 25 year repayment mortgage, average DLTR house prices and a 100% loan-to-value ratio.

## 2 THE EXCHANGE RATE AND FUTURE INSTABILITY

### A THE KEY ISSUES

A recurrent theme in popular discussion of the economy is that the higher current account deficit that is associated with rising household indebtedness will eventually undermine the exchange rate, which might then fall abruptly, leading the MPC to increase interest rates rapidly, thereby causing consumption and house prices to crash. Hence, some argue that it would be better for the MPC to set interest rates now at a level (ie higher) to reflect the risk of an exchange rate fall, that is they are implicitly recommending a strategy that implies an undershoot of the inflation target if sterling does not, in fact, fall. This is justified by asserting that the economy would be better placed to absorb the inflationary shock associated with an exchange rate depreciation if we were already starting below target.

The February 2002 *Inflation Report* published a forecast that allowed for the mean inflation forecast to be about 0.4% higher at a two-year horizon to reflect a risk that

the exchange rate might fall,<sup>4</sup> with some members also inclined to place weight on this forecast for policy purposes today.

As I have said before,<sup>5</sup> I am uneasy about the above arguments. First, the relationship between current account deficits and the exchange rate is far from straightforward. In recent years, commentators who have pointed to a rising US current account deficit as a reason to sell the dollar have been repeatedly confounded by a tendency for the US currency to rise further. Second, while I do not set much store by consensus forecasts of the exchange rate, it is notable that they have actually risen significantly over the last year (from a long-term forecast for the ERI of 93 a year ago, to a revised forecast of 102 now), and now point to only a modest depreciation from current levels (around 106). In any case, forecasts for the sterling exchange rate have, since late 1996, consistently predicted a depreciation – a period during which the exchange rate has actually appreciated by over 25%.

Given the difficulties of exchange rate prediction, a relevant consideration is whether one thinks that there is time to react to an exchange rate fall if and when it occurs.

Recall that our remit states that –

*“The framework is based on the recognition that the actual inflation rate will on occasions depart from its target as a result of shocks and disturbances. Attempts to keep inflation at the inflation target in these circumstances may cause undesirable volatility in output.”<sup>6</sup>*

This might permit the MPC to be less worried about a temporary overshoot of the target that might be caused by an exchange rate fall if and when it occurs.

In any case, the appropriate policy response to a fall in sterling will depend on why the exchange rate falls, therefore making it rather risky to be pre-emptive. An exchange rate depreciation could lead to a change in relative import prices without

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<sup>4</sup> Note that the calibration assumed a probability of 10% per quarter of a fall in the real exchange rate of 5%, which, in the model, is assumed to lead to a rise in inflation of as much as 1.6% if the exchange rate did fall. This is a rather higher rate of passthrough into inflation than was seen in Australia and New Zealand in recent years – a subject to which I return below.

<sup>5</sup> See, eg Wadhvani (2001).

<sup>6</sup> See “Remit for the Monetary Policy Committee”, letter from the Chancellor to the Governor, 25 May 2000.

necessarily increasing the overall inflation rate, though one would obviously need to monitor the situation carefully, looking especially for signs of indirect, second round effects.

These considerations are perhaps best illustrated by way of historical examples. Therefore, I turn to the recent experience of some other countries.

## **B THE EXCHANGE RATE AND INFLATION – SOME LESSONS FROM DOWN UNDER**

Both Australia and New Zealand have experienced significant exchange rate depreciations in recent years, with falls of 36% and 40% respectively versus the US dollar since their 1996 peaks (Chart 5).<sup>7</sup> Both countries have inflation-targeting central banks, and it is notable that while CPI inflation has risen in both countries, the extent of the rise has been relatively modest (Chart 6), especially if one allows for the other important factors having a transient impact on measured inflation.<sup>8</sup> For example, in New Zealand, although measured CPI inflation rose to 4% at the end of 2000, stripping out the effects of petrol (international oil prices rose rapidly in 2000) and excise duty on tobacco would lead to a rather lower inflation rate of 2.7%.<sup>9</sup>

Indeed, research carried out at the two central banks has suggested that the impact of the fall in the exchange rate on consumer price inflation has been rather less than would have been suggested by past historical relationships.<sup>10</sup> For example, Debelle and Wilkinson (2002) argue that -

*“the effect of exchange rate changes on inflation has become more muted ..... the Australian economy has become more resilient to temporary price level shocks”*  
(page 30).

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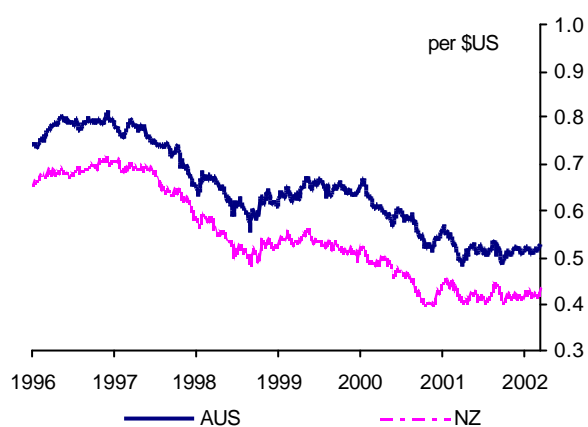
<sup>7</sup> The falls in the effective exchange rate indices from their 1997 peaks is somewhat smaller at around 23% and 28% respectively though, since their exchange rates have recovered in recent months, the peak-to-trough falls were larger.

<sup>8</sup> The measure of inflation for Australia in Chart 6 adjusts for the impact of the Goods and Service Tax in 2000.

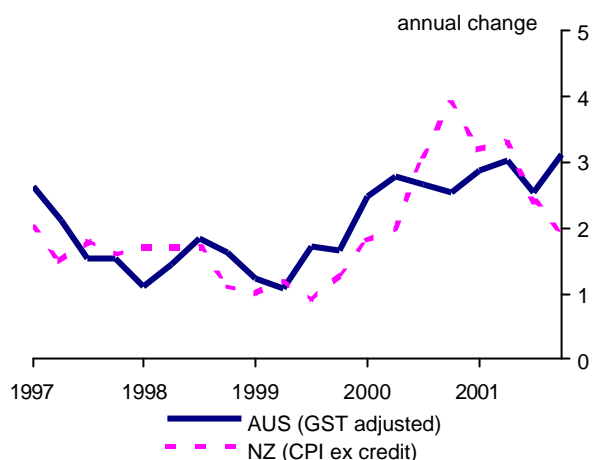
<sup>9</sup> See the RBNZ Monetary Policy Statement, March 2001.

<sup>10</sup> I have greatly benefited from very useful conversations with various officials at the RBA and the RBNZ, though, of course, the views expressed here are entirely my own and do not necessarily reflect those of either central bank.

**Chart 5: Australia and NZ  
Daily Exchange Rates**



**Chart 6: Australia and NZ CPI**



Similarly, Hampton (2001) asserts that -

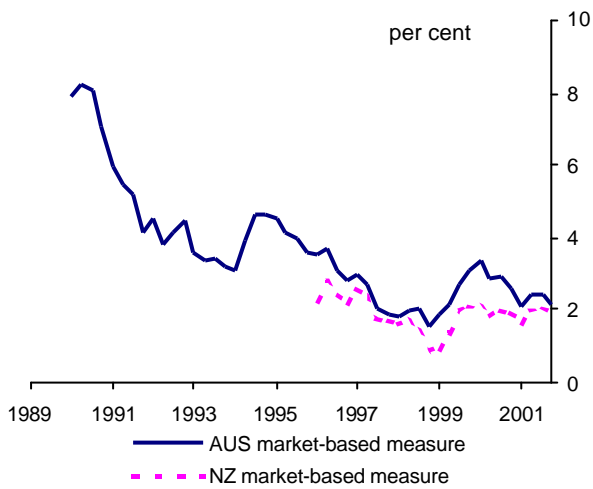
*“Earlier internal research done at the RBNZ ..... suggested that the long run import price pass-through coefficient was around 0.25 to 0.30. The much lower level of 0.15 estimated in this paper is consistent ..... (with the observation) that the recent depreciation in the exchange rate has not resulted in increases in consumer prices as large as we had expected.” (page 14)*

It is, of course, possible that the exchange rate pass-through has become more protracted than before – only time will tell.

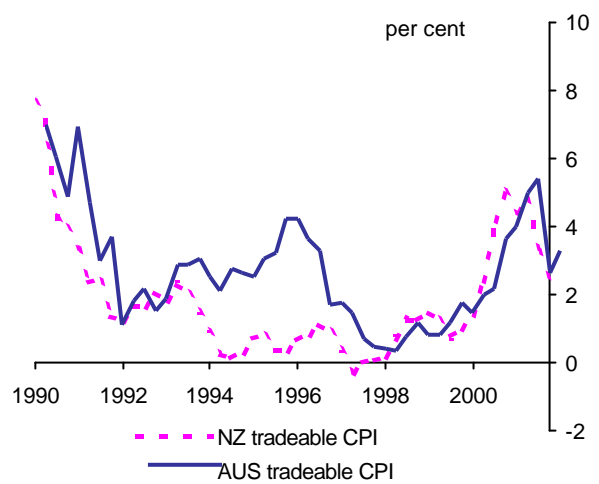
In both countries, measures of medium-term inflation expectations have been relatively well anchored (see Chart 7) despite the fall in the exchange rate (and, indeed, in 2000, a rise in oil prices and indirect taxes). In both countries, market expectations of medium-term inflation have remained close to the target band in recent years. Hence, although the measured inflation rate of tradeables goods rose after the exchange rate fell (Chart 8) the behaviour of non-tradeables inflation (Chart 9) and unit labour cost growth (Chart 10) has been relatively benign. Note that inflation has remained low after a significant exchange rate decline, although unemployment continued to fall in New Zealand, and only rose modestly in Australia

(Chart 11). Indeed, the exchange rate depreciations occurred at a time when unemployment rates were low by recent historical standards.

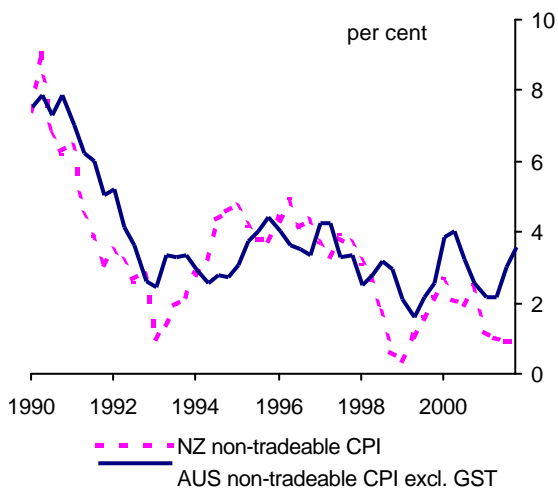
**Chart 7: Inflation Expectations**



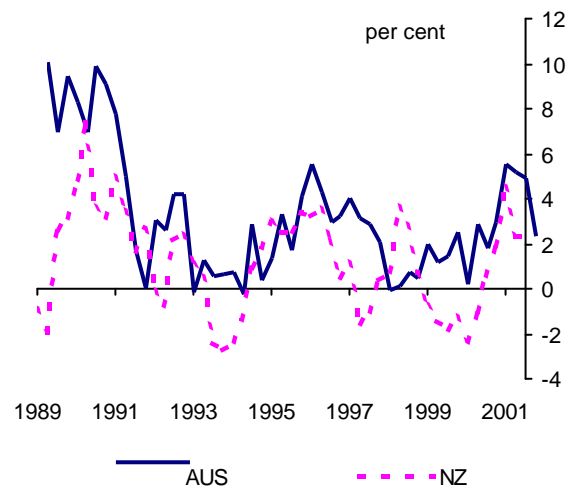
**Chart 8: Tradeables Inflation**



**Chart 9: Non-Tradeables Inflation**

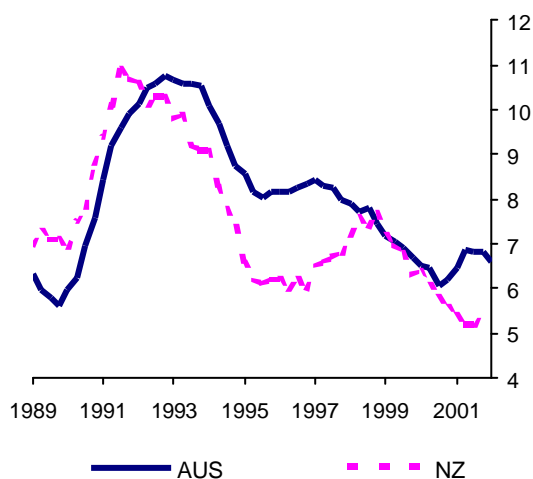


**Chart 10: Unit Labour Cost Inflation**

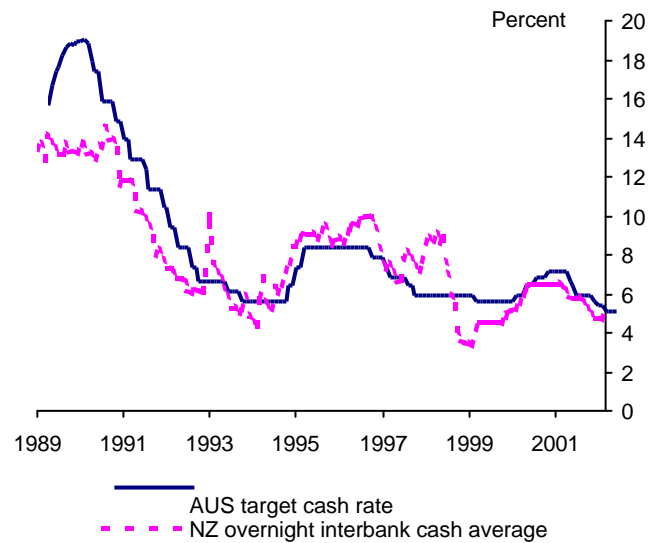


The RBA actually cut interest rates during the 1997-98 exchange rate depreciation. While interest rates went up somewhat in both countries in the wake of the 1999-2000 exchange rate depreciations, the rhetoric of the respective central banks suggests that they were not responding to the direct price level effects, but only to the indirect effects on demand, inflation expectations, wages, etc, so that the actual rise in interest rates was not out of line with the recent amplitude of interest rate changes (Chart 12). As we noted in Section 1 above, consumer debt-income ratios have actually continued to grow very significantly in both countries, and there has been no “hard landing” in their respective housing markets (Chart 13), though it must be recognised that debt-income ratios were starting from lower levels relative to what currently prevails in the UK. With domestic inflation having reacted only a little to the significant exchange rate depreciations, the international competitiveness of the two economies has improved, and this has been reflected in an improvement in their respective current account positions (Chart 14). The latter is especially significant given that both economies have grown rather faster than the G7 aggregate over the last year, with the Australian economy registering a growth rate of 4% despite the weak global economy.

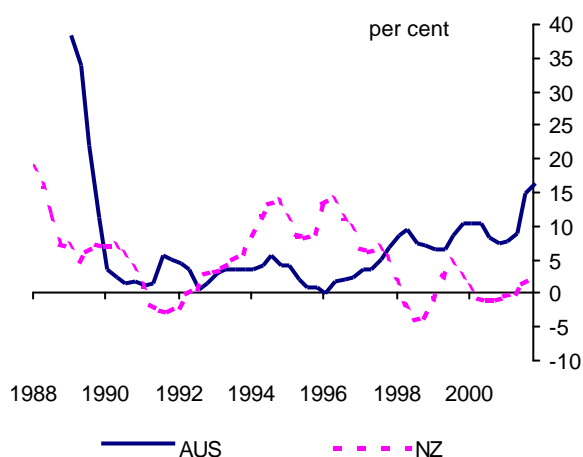
**Chart 11: Unemployment Rates**



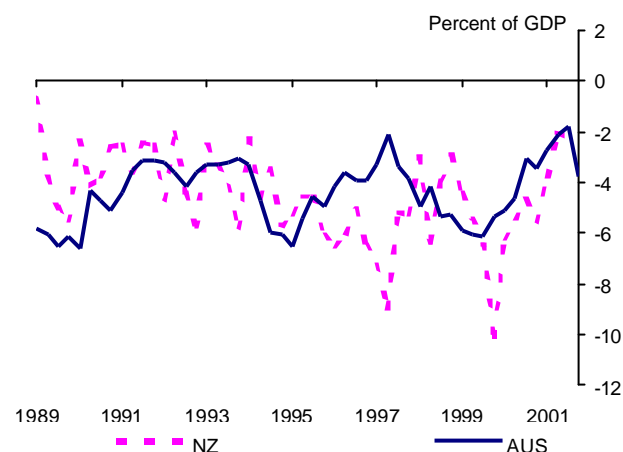
**Chart 12: Interest Rates**



**Chart 13: House Price Inflation**



**Chart 14: Current Account Ratios**



It is also worth noting that neither central bank raised interest rates because they expected an exchange rate fall and there was, therefore, no deliberate attempt to “prepare the economy” for such an eventuality. Instead, they waited for it to actually fall, and even then appear to have proceeded cautiously because of their uncertainty about the magnitude and timing of the impact on inflation.

On balance, I am much encouraged by the recent experience of the Australasian economies following their recent exchange rate depreciations. There are many who, in the British context, are pessimistic about the UK economy if a large fall in sterling’s effective exchange rate were to occur. Until now, the experience of Australia and New Zealand would suggest that these economies were able to cope with very large exchange rate changes without any significant problems.<sup>11</sup>

Of course, it remains possible that things might yet go wrong over there. If, say, headline inflation rates were to stay at or above the high end of the normal range, they

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<sup>11</sup> It may, of course, be that many of us have been using the wrong models to analyse the effect of an exchange rate on inflation. McCallum and Nelson (2001), in contrasting their model to others, argue that - “In general, our model provides little support for inflation-targeting central banks to be driven to

may yet have a significant impact on inflation expectations, so we shall have to ‘wait and see’ vis-à-vis the final verdict regarding their recent experiences.

Moreover, there may be good reasons as to why the UK’s experience with a significant exchange rate fall might be less benign. Note that the 1997-98 fall in the currencies of Australia and New Zealand coincided with the so-called ‘Asian crisis’, which implied that there was a significant deflationary impulse from abroad helping to keep inflation in check though recall that Australian interest rates were actually reduced during that episode. The reaction of inflation to an exchange rate fall during a period when the international economy was buoyant might have been different, though in this regard, the failure of inflation to rise much as a result of exchange rate effects during 2000 is quite encouraging.

A key common feature of their success in managing the adjustment to a large exchange rate fall was that inflation expectations remained low, perhaps in part because the respective central banks said that they would remain vigilant and respond forcefully to any signs that the exchange rate falls were beginning to spill over into higher medium-term inflation expectations.

Obviously, the appropriate response to an exchange rate fall depends on why it has occurred. If, for example, there were a domestic inflationary shock which happens to drive the exchange rate down, then, it would be important to respond aggressively to prevent it from being embedded into inflation expectations.

It would be both foolish and imprudent to ignore the very real risks confronting the UK economy because of rising household indebtedness, a deteriorating current account deficit and an ‘overvalued’ exchange rate. However, as I have argued above, all these features of our current problems also confronted Australia and New Zealand in recent years, and yet, at least until now, there has been no ‘bust’ there. Hence, while not wishing to sound complacent, their experience suggests that, notwithstanding the considerable risks confronting us, we may similarly avoid a ‘bust’, though, of course, we shall need to remain vigilant.

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large increases in interest rates in the face of even significant exchange rate depreciations, unless the



### 3 HIGH CONSUMER DEBT, AN OVERVALUED EXCHANGE RATE AND APPROPRIATE MONETARY POLICY

It has, as we noted above, been argued that the high levels of consumer indebtedness and an overvalued exchange rate should lead the MPC to be ‘prudent’, and to hold interest rates higher than is necessary to hit the 2 year-ahead inflation target. The argument is that by allowing inflation to modestly undershoot on a two-year horizon, one might avoid a much larger deviation from target at some future date.<sup>12</sup> I have discussed this argument at some length in the past,<sup>13</sup> so I shall be necessarily brief here.

If interest rates are held higher than otherwise, other things being equal, this leads to the sterling exchange rate being higher than it would otherwise be. This has the effect of potentially exacerbating the imbalances today, as a higher current value of the exchange rate leads to a higher trade deficit.

Relatedly, for many years, students of macroeconomics have, therefore, been taught<sup>14</sup> that a central bank which is interested in stable output and inflation should ‘lean against the wind’ of significant asset price movements if these disturbances do not reflect underlying economic fundamentals.

About two years ago, some academic work<sup>15</sup> that I was associated with showed that this basic insight was still valid in the context of a more general model of the economy currently used at the Bank of England, ie if one were interested in minimising the volatility of inflation around an inflation target, then, the correct policy response to a high, overvalued exchange rate is to keep interest rates a little lower than what might be necessary to achieve a 2 1/2% inflation rate at a two-year

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depreciations are associated with large increases in output above potential.” (p 26)

<sup>12</sup> ie, this can be interpreted as a desire to reduce future inflation volatility.

<sup>13</sup> See Wadhvani (2001).

<sup>14</sup> See Poole (1970).

<sup>15</sup> See Cecchetti, Genberg, Lipsky and Wadhvani (2000).

time-horizon. This is primarily because the alternative of a somewhat higher interest rate is likely to exacerbate and prolong the “overvaluation” of sterling, which would then increase the volatility of future inflation.

Holding interest rates higher than may be necessary to achieve the two year-ahead target might also hurt the corporate sector, through, both the direct interest rate channel and through the indirect exchange rate channel. A worsening of the financial position of the corporate sector could leave it rather more vulnerable to adverse events. One could envisage circumstances where if interest rates were higher than is necessary to achieve the two year-ahead inflation target, then this would weaken the corporate sector so much such that an unhelpful development increases unemployment by more than would otherwise have been the case, which, in turn, leads to a greater degree of retrenchment by the household sector than may otherwise have occurred.

Hence, in both examples, the desire to reduce inflation volatility by holding interest rates higher today could actually result in an increase in future inflation volatility. Of course, I do not exclude the possibility that there would be circumstances in which it might be appropriate to respond to imbalances in the household sector. One could, for example, envisage a situation where it might be appropriate to increase interest rates because it was felt that a house price “bubble” might destabilise the economy. I should re-emphasise that one would only be worrying about the bubble because of its implications for future inflation volatility, which is entirely consistent with our remit. In my judgement, taking the UK as a whole, we are not in that situation as yet, but one must remain vigilant. Even in that situation difficult judgements about whether we could easily communicate what we were doing would be a highly relevant consideration.

Finally, to conclude, I have tried to argue today that although the UK economy faces considerable risks, it is important that we do not exaggerate them. Nevertheless, I promise you that we shall attempt to remain vigilant to the evolving risks.

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