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Contents **Page**

Commentary on the economic situation	1
Research paper: Crash vs. droop in the UK housing market	3

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Full scale boom in mid-2004

Interest rate increases must not be delayed

Runaway consumer spending

In the year to March the volume of retail spending on non-food items jumped by over 8%; in the three months January to March the volume of retail sales was 1.9% higher than in the previous three months (i.e., with an implied annualised growth rate of 7.8%). These numbers are strongly reminiscent of the excesses of previous boom-bust cycles and have to be described as much too high. Moreover, the buoyancy of consumer spending is hardly a puzzle. In 2002 house prices rose by 25% and in 2003 by 15%, while the opening months of 2004 have seen an annualised rate of gain in house prices of about 20%. People are feeling rich and want to convert excess housing equity into goods and services. (The difficult question here is whether the propensity to spend depends on the *level* or the *rate of change* in housing wealth. If the level of wealth is crucial, the housing market adjustment over the next few years will be more troublesome. The dangers of a crash are discussed in the accompanying research paper.)

and - despite misleading official data - even manufacturing is doing well

The Bank of England has deferred interest rate increases, apparently because of concern that ½ % or 1% on interest rates would cause the pound to appreciate and hurt manufacturers. As usual in these circumstances, official data suggest that industrial production is sluggish, while the Bank's agents are worried about the impact of higher interest rate on producer groups in their regions. Also as usual in these circumstances, official data understate the strength of the economy, including its industrial component, and the Bank's agents need to see the wider picture. Experience over the last 25 years has shown that the monthly survey from the Confederation of British Industry is much more reliable than the industrial production figures from National Statistics. The latest CBI survey reported balances of minus 13% on new orders and plus 10% on output expectations, which - although down a touch from the previous survey - compare with minus 29% on orders and minus 12% on output in April 2003. In many sectors companies are finding that they are short of raw materials and have begun to increase capital expenditure. With the world economy certainly enjoying its best year since 2000 (and possibly its best year since the late 1980s), this is not the time to let a sense of benevolence towards British manufacturers get the better of sensible anti-inflationary monetary policy.

Higher interest rates are needed

Admittedly, the case for higher interest rates is not helped by the latest inflation figures. In the year to March the consumer price index was up by 1.1%, only a smidgeon above the level (0.9%) at which the Governor of the Bank would have to write an Open Letter to Mr. Brown. The April CPI will probably be affected by recent increases in oil and gas prices, but it may dip beneath 1%. But the Monetary Policy Committee needs to look ahead at least two years. Less embarrassment would be caused by a tiny under-shoot on the inflation target in the next few months than a big over-shoot in late 2006. Higher interest rates are needed.

Professor Tim Congdon **30th April, 2004**

Summary of paper on

'Crash vs. droop in the UK housing market'

Purpose of the paper

With house prices higher relative to incomes than ever before, the future direction of house prices is important to the economic outlook and a matter of much controversy. The paper considers whether a house price crash, like that between 1989 and 1993, is inevitable.

Main points

- Housing wealth is fundamental to consumption, particularly to big-ticket durable items such as cars and expensive electrical goods. (See chart on p. 5 which shows the link between property transactions and spending on "household goods".)

- The house-price-to-earnings ratio ("the HP/E ratio") currently stands at over 5 1/4, compared with a long-run average of just above 3 1/2. (See p. 6. The values of "house prices" and "earnings" in this calculation depend on the series chosen, but - however the sum is done - the HP/E ratio is about 50% above normal.)

- The HP/E ratio appears to be mean-reverting. With pay growth remaining moderate (i.e., at 4% - 5% a year, consistent with the official price inflation target of 2%), either a long period of stable house prices or a sharp house price fall in the next few years would take the HP/E ratio back to the long-run average. (See p. 7.)

- Several pundits have forecast a house price crash, like that between 1989 and 1993. The matrix on p. 8 presents a Crash-ometer. It shows the house price change between now and 2008 for varying combinations of the HP/E ratio in 2008 and the rate of earnings growth.

- The views of three pundits - Hometrack, Roger Bootle of Capital Economics and Tony Dye ("Dr. Doom") - can be appraised with the benefit of the Crash-ometer. If the HP/E ratio is indeed mean-reverting (i.e., the equilibrium ratio is still 3.6), Mr. Bootle's view is plausible. (See p. 9.)

- But the equilibrium HP/E ratio may have increased, because of reductions in the tax burden on the average household, the emergence of buy-to-let investment (see p. 10) and growing numbers of two-earner households (see p. 11).

- If the equilibrium HP/E ratio has increased (as seems likely), several years of stable house prices or small falls lie ahead. The housing market will droop, not crash. The immediate outlook is fine. (See p. 12.)

This paper was written by Professor Tim Congdon.

Crash vs. droop in the UK housing market

Introducing the Crash-ometer - and forecasting a droop

House price boom and buoyant consumption are undoubtedly related

Early 2004 has seen unsustainably strong increases in consumer spending, partly motivated by the financial confidence arising from surging housing wealth. In the year to March the volume of non-food retail sales climbed by over 8%, similar to the sort of increases seen in past boom-bust cycles. (See the chart on p. 5.) Everyone knows that house prices are high compared with incomes and everyone accepts that the big house price gains of recent years cannot continue. But huge disagreements have opened up between commentators about whether a crash is inevitable. On 19th April the London *Evening Standard* carried a story which compared the pessimism of Mr. Tony Dye ("Dr. Doom") and Mr. Roger Bootle of Capital Economics with the optimism of Hometrack. Dye and Bootle projected house price falls of 30% by 2009 and 20% by 2007 respectively, whereas Hometrack expected London house prices to advance 30% by 2008. (In Bootle's case the comment related to house prices in the South-East.) What will happen?

The house price-to-earnings ratio seems to revert to a long-run mean value of about 3½

The message of the chart on p. 6 is compelling. It shows that the house-price-to-earnings ratio ("the HP/E ratio") stands at about 5 ¼ and is a shade above the level at the two earlier peaks, in 1973 and 1989. On both these previous occasions the ratio returned to "normal", represented by a long-run average of just above 3.6, and even fell beneath it. After the 1973 peak the return to normal occurred because of rapid inflation and a big rise in earnings; after the 1989 peak it was due to a crash in house prices. If the long-run average HP/E ratio were now to be restored quickly (i.e., within one or two years) and the Bank of England were to keep inflation on target (i.e., with earnings growth staying moderate at under 5% a year), another house price crash would be implied.

But is a house price crash inevitable?

But these are debatable "if-s". Whatever the power of the long-run link between pay and house prices, the pessimists have hedged their bets about the timing of the crash. They put it a few years away, not in 2004 or even 2005. This is sensible as the boom in housing finance rolls on, with mortgage approvals at present well up on early 2003 and a multiple of their level in 2000 or 2001. (See the chart on p. 12.) Amazing though it may seem, the HP/E ratio could well increase further in the spring and summer this year to all-time peaks.

The Crash-ometer

So an assessment of the different forecasts needs to relate to a period some years away. The Crash-ometer on pp. 8 – 9 relates to 2008. It shows the change in house prices implied by various combinations of,

1. the HP/E ratio prevailing in 2008, and
2. the annual rate of change in earnings between now and then.

Readers can make their own judgement about which combination is most plausi-

Fitting the pundits into the Crash-ometer

ble. All three of our commentators can be of course fitted into the Crash-ometer. The most relevant line of the matrix is that with a 4 ½%-a-year increase in earnings, because it corresponds roughly to the official inflation target. (If productivity is growing by 2 ½% a year and pay by 4 ½% a year, labour costs per unit of output increase by 2% a year, while – in the long run – labour costs per unit of output and inflation are closely correlated.) If a HP/E ratio of 3.6 were reached in 2008, the house price fall from now would be 18.2%, very close to the Bootle view. The Tony Dye view requires a HP/E ratio down to 2.78 and/or rather low pay growth and inflation; the Hometrack view would work if the HP/E ratio were to remain at its current level and pay growth accelerated.

Note that general macro-economic situation more balanced than in 1973 and 1989, before previous crashes

A fair comment is that – on the basis of history – the Bootle and Tony Dye positions look more sensible than Hometrack's. However, it is important to emphasize that the slumps in the HP/E ratio from 1973 and 1989 were partly a by-product of severe macroeconomic disequilibrium, with national output well above its trend level and strong upward pressures on inflation. The situation at present is much more benign. UK interest rates will have to rise to dampen the growth rates of mortgage credit, bank credit in general and the quantity of money, but the double-digit interest rates seen in 1974 and 1990 will not be necessary.

Indeed, a case could be argued that the equilibrium HP/E ratio has risen because of structural changes in the economy, notably,

1. a reduction in the tax burden on the average household which has meant that the use of pre-tax earnings in the HP/E ratio is unreliable,
2. an increase in the number of two-earner households, with the rise in female participation in the workforce (see the chart on p. 11), and
3. the emergence of the buy-to-let investor, which implies a net increase in the demand for housing. (See the chart on p. 10.)

Equilibrium HP/E ratio may have risen

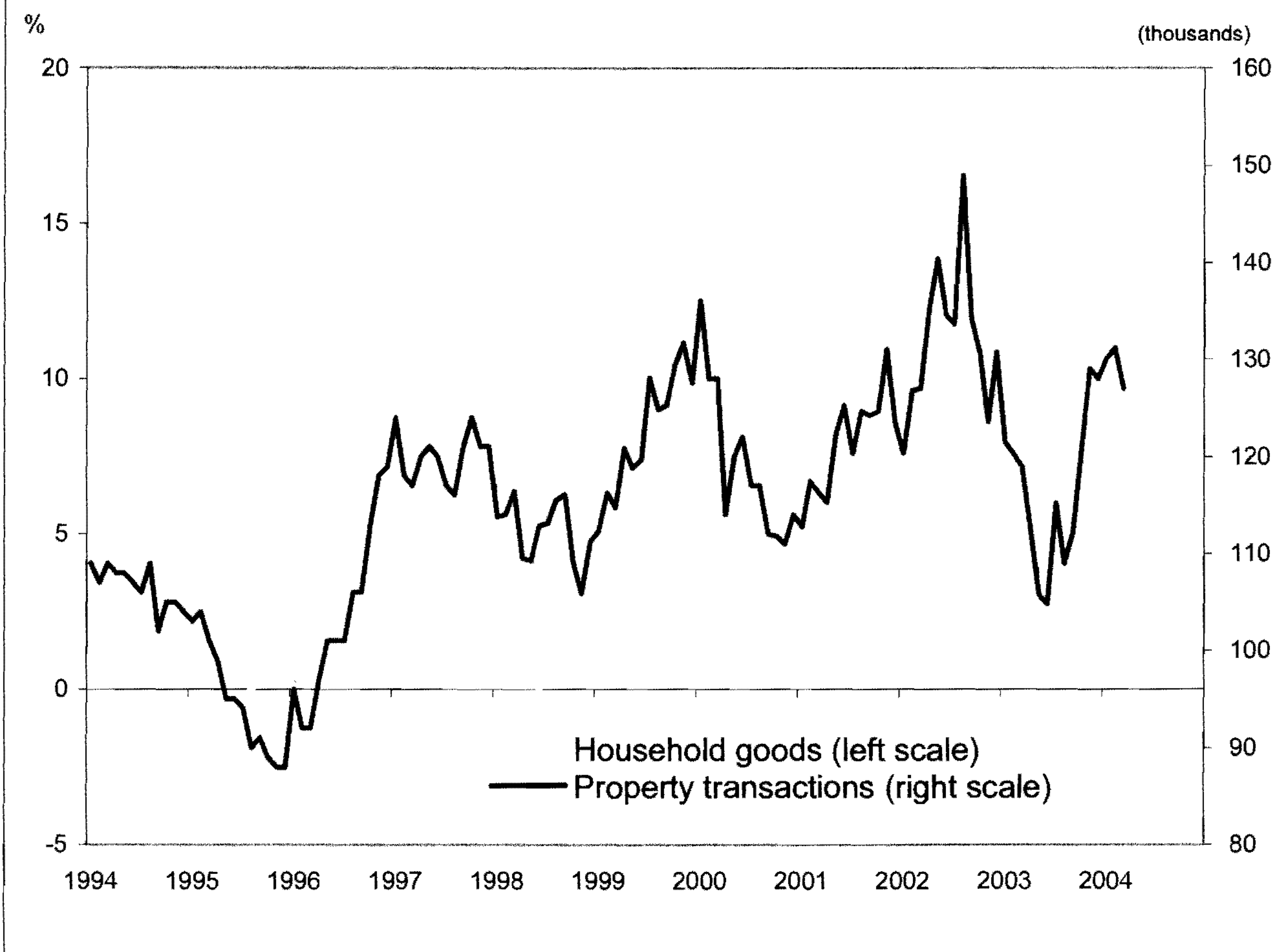
If the equilibrium HP/E ratio has risen from, say, 3.6 to 4 (which is a reasonable position to take), the problem of housing market adjustment ought not to be too severe. In fact, with some increase in pay growth and inflation likely in 2005 after the boom of 2004, three to five years of stable house prices would take the HP/E ratio back to a level that ought to be sustainable in the long run. House prices may droop rather than crash. (See the matrix on p. 7.) However, this sanguine assessment does depend on the Bank of England bringing the current boom under control in the near future. As so often in these situations, commentators debate whether there is a boom that needs controlling and whether the Bank has to take significant action to moderate growth. The longer that corrective measures are postponed, the higher will be the eventual interest rate rise and the more difficult the adjustment problem in the housing market.

Droop more likely than a crash

Housing and consumption

Transactions and big-ticket spending clearly correlated

Chart compares annual % change in household goods sales, against left-hand axis, with number of property transactions, against right-hand axis. The number of property transactions in recent months has been distorted by apparent errors in data collection and our series here has been smoothed.

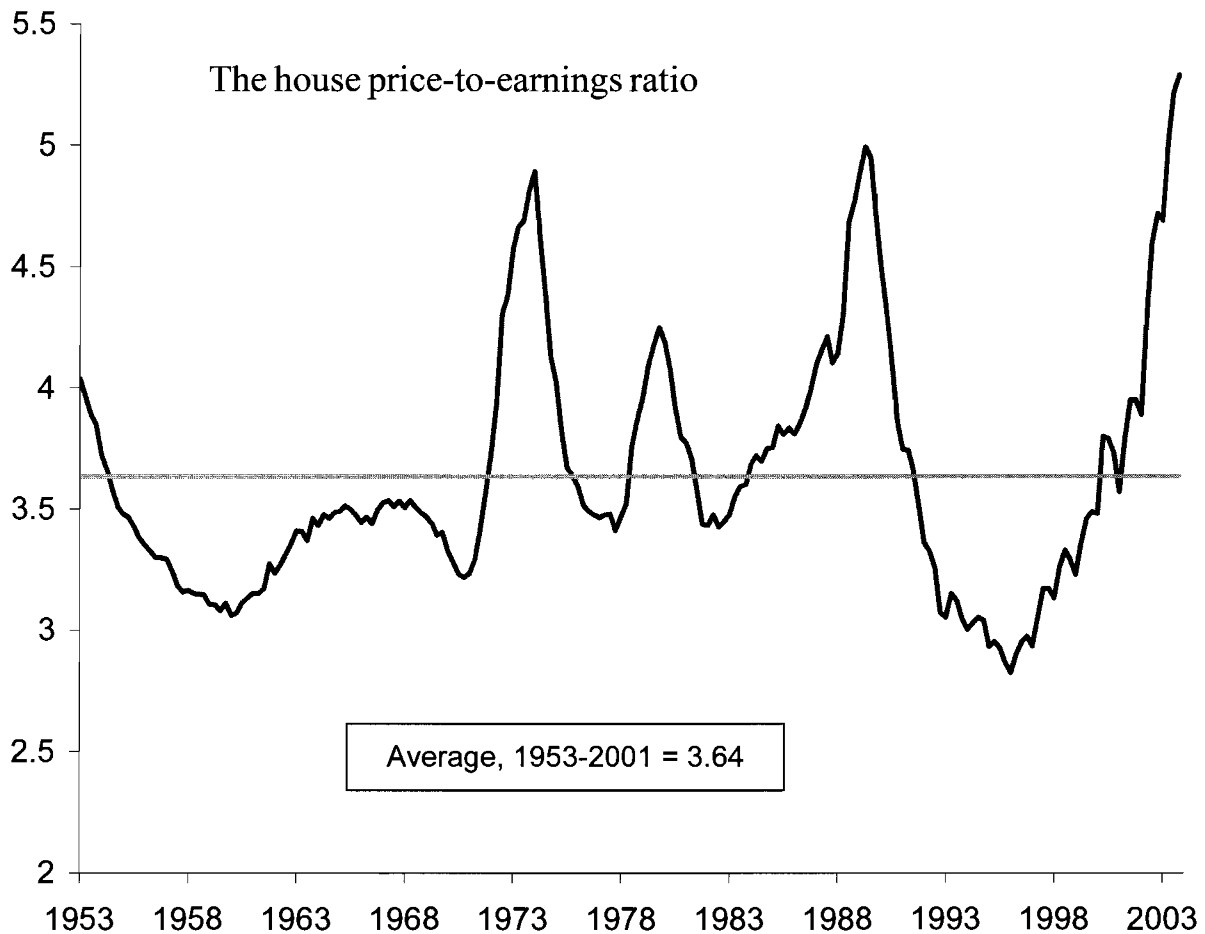


The link between wealth and consumption has been much researched in the last 20 years. There is little doubt that wealth does affect consumption, although the broad conclusion has to be qualified by uncertainty about the relative importance of different types of wealth, and about the length of the lags between changes in wealth and consumption. In its September 2000 model the Bank of England included an equation in which a 1% change in real gross housing wealth added 0.12% to consumption one quarter ahead, 0.09% a year ahead and 0.07% two years ahead. The 25% and 15% increase in house prices in 2002 and 2003 respectively ought therefore to be adding almost 3% to consumption in 2004, and this makes no allowance for the effect of rising house prices in 2004 itself! Given the housing background and the current buoyancy of retail sales, forecasts of a 4% - 5% growth rate in consumption this year are not silly. The chart shows a clear link between property transactions and the growth rate of spending on "household goods" (i.e., big-ticket durable goods, mostly).

House prices and incomes

Is this a mean-reverting series?

Chart shows ratio of average UK house prices, according to Nationwide Building Society, to average earnings (i.e. pay), according to National Statistics.



At first glance the house-price-to-earnings ratio is volatile, varying from lows of about three in the late 1950s and early 1960s, and of 2 3/4 in the mid-1990s, to highs of over five in 1973, 1989 and again today. However, the chart does suggest a tendency to return to a long-run average value of just above 3 1/2. The power of this mean-reversion may be better appreciated by noting that average house price in 1953 was about £1,700, whereas today it is almost £140,000. In early 2002 the HP/E ratio was virtually the same as in 1953 (with a value of about four), but house prices and incomes had both climbed over 50 times! This sort of behaviour is reminiscent of many other long-run series, such as that of money to national income, the dividend yield on equities and the real yield on government bonds. However, the equilibrium HP/E ratio may shift because of changes in its structural determinants, such as demographic influences, the proportion of their incomes that people have to pay on tax and the intensity of landlord demand. (See pp. 10 - 11.)

How many years are needed are needed to restore the long-run average?

The number in the matrix shows how many years are needed to restore a house-price to earnings ration of 3.6 for the combinations of house price change and earnings increase indicated. For example, with house prices constant (i.e., a 0% rate of house price change) and 4.5%-a-year increases in average earnings, it takes 8.6 years for the HP/E ratio to return to 3.6.

	House price change, % per annum				
Annual rate of change in earnings, %	4	0	-4	-8	-12
7.5	11.4	5.2	3.3	2.4	1.9
6.0	19.8	6.5	3.8	2.7	2.0
4.5	78.6	8.6	4.4	3.0	2.2
3.0	never	12.8	5.4	3.3	2.4

The purpose of this matrix is to give a sense of perspective on future house price movements, accepting the message of the chart on p. 6 (i.e., that the HP/E ratio does mean-revert). Commentators on the housing market sometimes talk as if the only way that the HP/E ratio can return to "normal" (i.e., the long-run average of about 3 1/2) is by a fall in house prices. With the HP/E ratio 50% above normal, talk of a house price crash of a third is unsurprising. But this overlooks that the HP/E ratio can return to normal because of higher incomes. The longer the period of time under consideration given a particular rate of income growth, or the higher the rate of growth of incomes given a fixed interval of time, the easier it becomes to avoid a fall in house prices. The crucial line in the matrix is that where the growth of earnings (i.e., incomes) runs at 4 1/2% a year, as that is regarded as consistent with the official inflation target. But there is some leeway for a slightly higher figure, as the inflation target allows (temporarily) an annual increase in consumer prices of just under 3%.

The Crash-ometer: defining risks

What happens to house prices over four years?

The number in the matrix shows the total % change in house prices from 2004 to 2008 for different assumptions about
i) the house-price-to-earnings ratio in 2008, and
ii) the annual rate of change in earnings from 2004 to 2008

	House-price-to-earnings ratio in 2008			
Annual rate of change in earnings, %	5.25	4.43	3.6	2.78
7.5	33.5	12.7	-8.4	-29.3
6	26.2	6.5	-13.4	-33.2
4.5	19.3	0.6	-18.2	-36.9
3	12.6	-5.0	-22.8	-40.4

For example, if the HP/E ratio in 2008 were 3.6 (i.e., it had returned to the long-run average) and the annual rate of change in average earnings between now and then were 4.5%, house prices would have fallen by 18.2%. The chart of the past history of the HP/E ratio is given on page 6.

Given the sorry sequel to the house price surge in the final year of Mr. Nigel (now Lord) Lawson's Chancellorship, pundits are justified in making conjectures about a house price crash in the next few years. But it may help to recall what actually happened in the downturn phase of the last big cycle. According to the Nationwide quarterly house prices series, the peak average house price was in the third quarter of 1989 at £62,872 and the trough came three-and-a-half years later in the first quarter of 1993 at £50,128. The implied fall was 20.2%. According to the Halifax monthly house price series, the period of declining house prices was slightly longer, with the peak of £70,246 in May 1989 and the trough of £61,132 in January 1993, and the fall (13.0%) was less severe. Nevertheless, the broad similarity of the movements is striking and argues that both exercises were on the right lines. The difficulty with very pessimistic views about house prices from now is that the economy as a whole is in much better balance today than it was in 1989.

The Crash-ometer and the pundits

Analysing the basis for different views

The highlighted areas of the matrix locate different pundits' views in the range of possibilities and show the assumptions required to validate them.

Annual rate of change in earnings, %	House-price-to-earnings ratio in 2008			
	5.25	4.43	3.6	2.78
7.5	*33.5*	12.7	-8.4	***-29.2***
6	*26.2*	6.5	-13.4	***-33.1***
4.5	19.3	0.6	**-18.2**	-36.8
3	12.6	-5.0	**-22.8**	-40.4

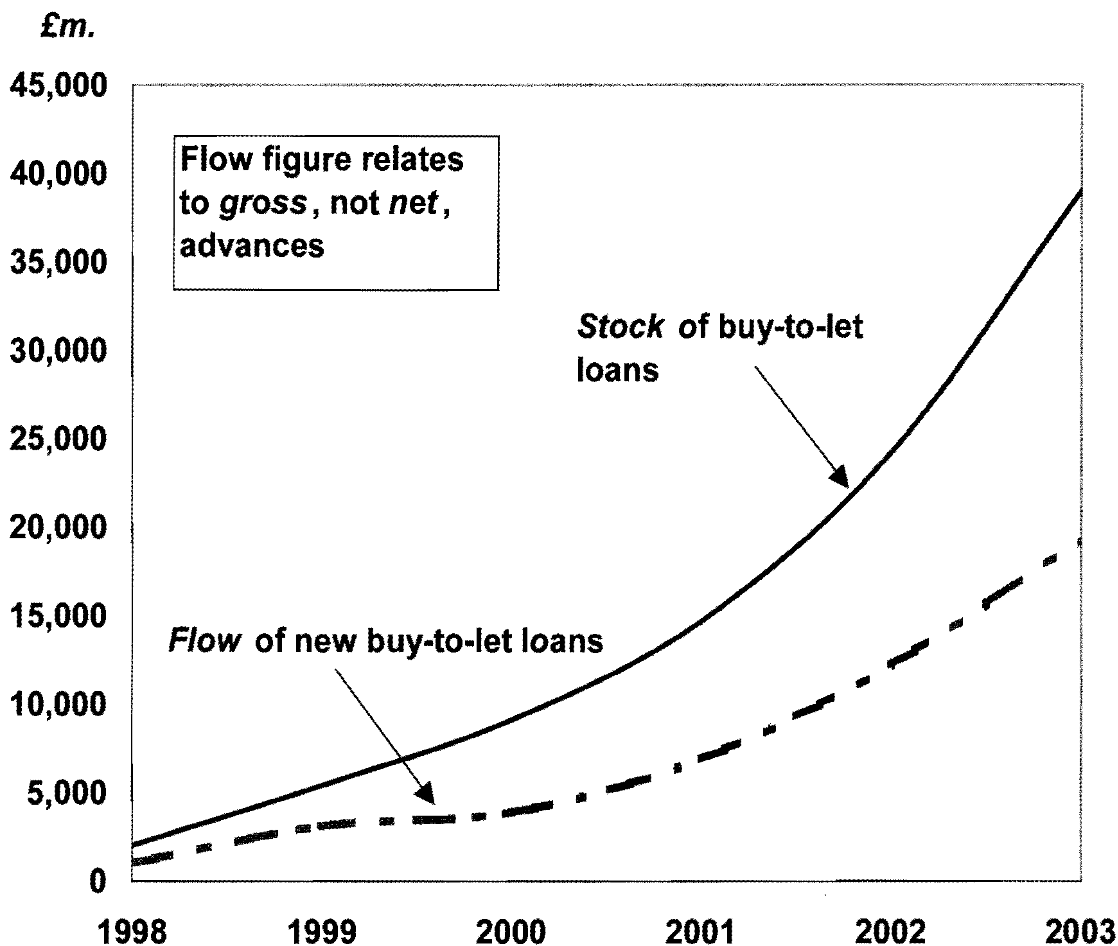
Hometrack
Bootle - Capital Economics
Tony Dye - Dr Doom

The charts on the last three pages generate insights into the likely development of the housing market from here. While it is true that the HP/E ratio is about 50% above "normal" and that it is a mean-reverting series (see p. 6), it could return to its long-run average as a result of several years of rising incomes rather than because of a house price crash (see p. 7). Moreover, the UK's general macroeconomic position at present is far more balanced than in 1989, with output probably close to its trend level and money supply growth at a more acceptable rate. (Money supply growth is admittedly rather high at about 8% over the last year, but it is not ridiculous at over 15%, as it was in 1989.) As house prices fell between 12% and 20% in the last big cycle (see p. 8), the views of Roger Bootle (20%) and Tony Dye (30%) look too pessimistic. On the other hand, the bullish Hometrack view is most implausible, as history argues that the HP/E ratio must fall. House prices falls of 30% or more did occur in certain regions between 1989 and 1993 and could happen again.

Britain's changing housing market

The boom in buy-to-let

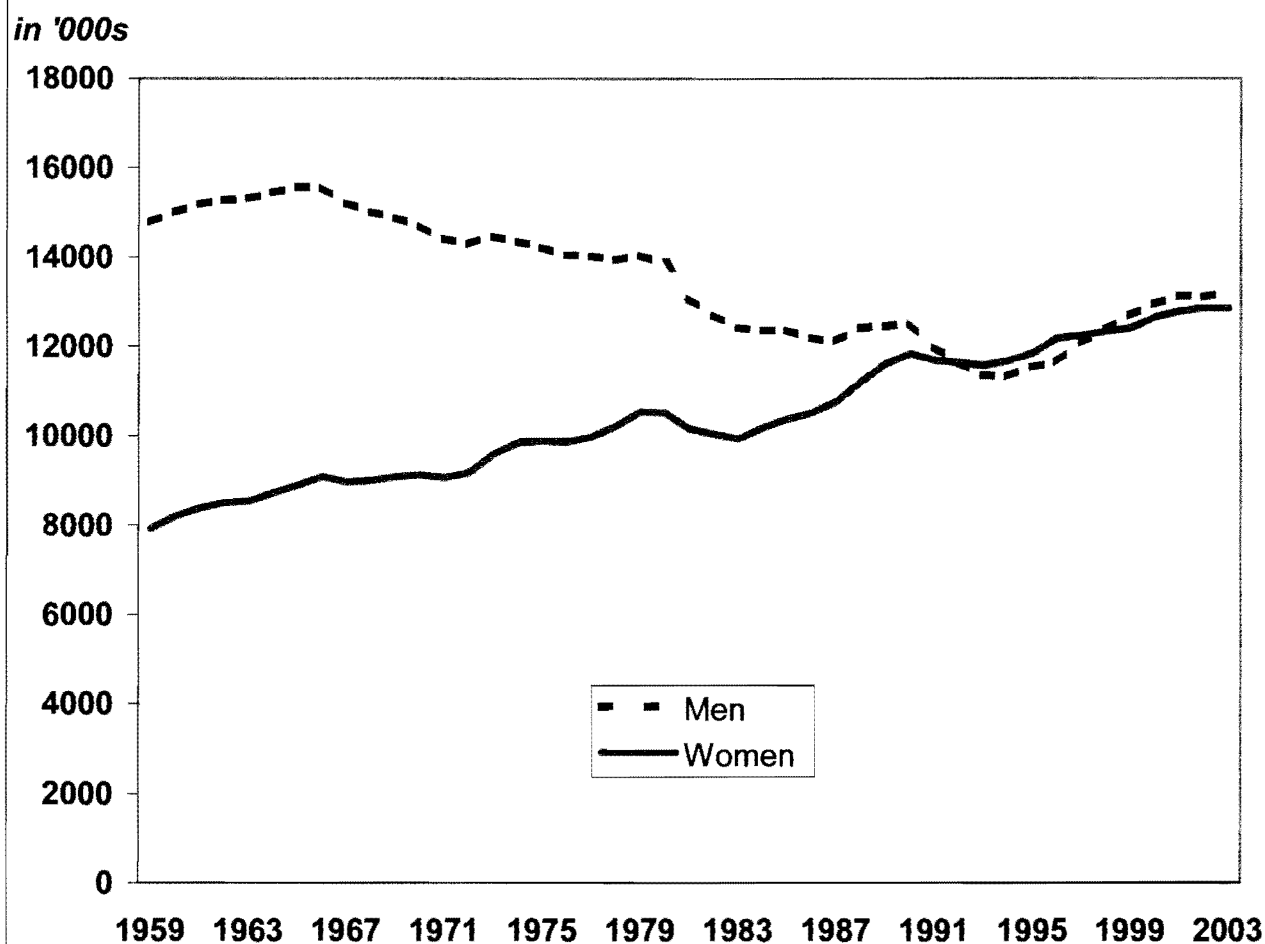
Chart shows stock of outstanding buy-to-let loans and flow of new buy-to-let loans, according to the Council of Mortgage Lenders. The flow of new loans is gross, i.e. it is not reduced by repayments.



An important feature of the housing boom of 1996 to 2004 has been the surge in buy-to-let investment. The Council of Mortgage Lenders has collected data on this development and presented them in its website. They show the number of buy-to-let mortgages climbing from only 28,700 at the end of 1998 (with the stock of mortgages at only £2b.) to 408,300 (and a mortgage stock of £39b.) a mere five years later at the end of 2003. But doubts might be expressed about the accuracy of the 28,700 and £2b. figures for end-1998, as landlords have been borrowing to buy houses for decades. The ratio of private-renting households to all households has increased from 10% in 1998 to 11% now. It is therefore hardly credible that the private landlords of 1998 had hardly any borrowings whatsoever and that all of the outstanding stock of buy-to-met mortgages today is owed on the 370,000 of properties newly-bought for renting since 1998. However, the return of the private landlord since the 1980s - when legislation on renting changed radically - does imply a net increase in the demand for housing.

The rise of the two-earner household

Chart shows the number of male and female "employees in employment" at mid-year, according to National Statistics, in thousands



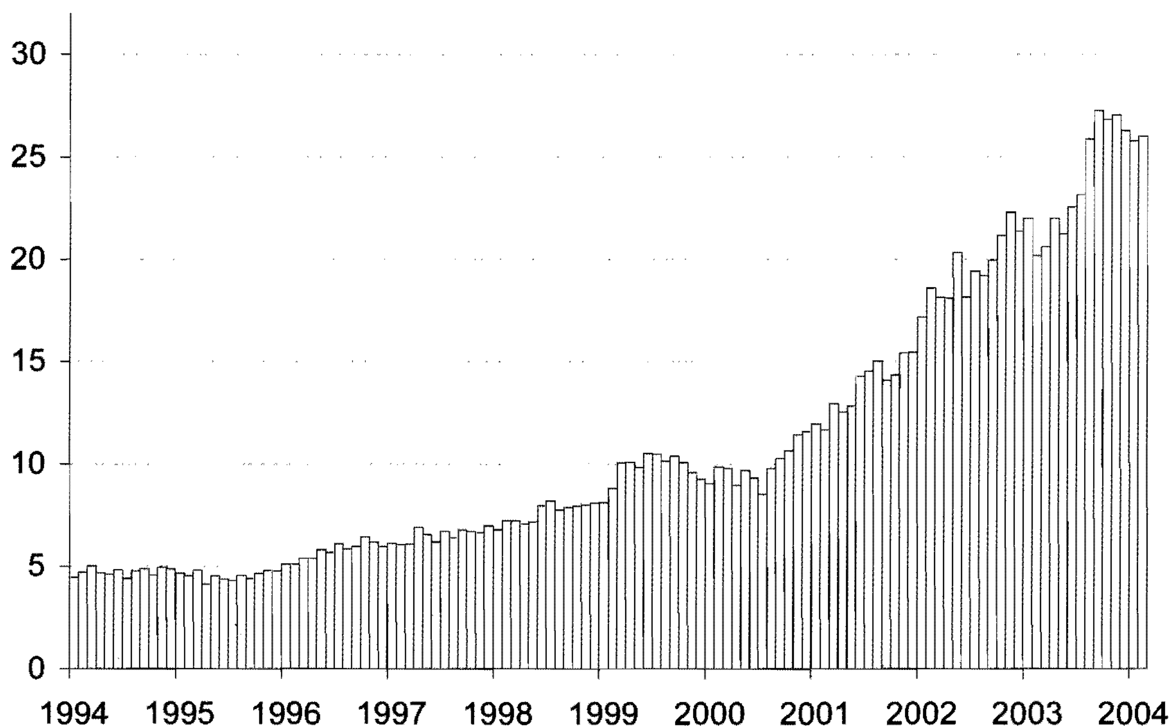
Obviously, a household with two earners finds it easier to service a mortgage than a household of only one earner, assuming the same income per earner. One of the pre-eminent social trends of the last 50 years has been an increase in the proportion of women in employment, including both married women and women cohabiting with a partner. It follows that the mortgage-servicing ability of households has risen much more than that of the main breadwinner. It follows - further - that the equilibrium ratio of house price to earnings may have increased, because the earnings of two individuals, not one, are now relevant to the calculation. This argument would go a long way to rationalising the present level of the HP/E ratio, but notice that it ought also to have been valid in the early 1990s and did not prevent the house price crash of those years. Another cautionary point is that - although the increased number of two-person households would appear to justify a rise in the HP/E ratio - it is very difficult to relate this variable to the fluctuations in the HP/E ratio that have actually been seen in the last 30 years.

A busy mid-2004 ahead

Mortgage approvals remain close to all-time peaks

Chart shows mortgage approvals, i.e. agreements by banks and building societies to lend for the purchase of houses, monthly data. The series is gross, i.e., it does not allow for the repayments that often accompany lending. Source is the Bank of England and the series is seasonally adjusted.

£ billion



In this *Monthly Economic Review* Lombard Street Research has carried out two analyses of house price prospects in recent years, one in May 2002 and another in December 2003. Both of them voiced concern about the medium-term sustainability of rapid house price inflation, but - fortunately - they acknowledged that the immediate outlook was fine. One reason for the positive assessment was that mortgage approvals were rising strongly, which implied that housing demand would remain buoyant at least for the next six months. The demand for housing enjoyed further help in late 2003 from a drop in interest rates, as base rates fell from 4% at the start of the year to 3 1/2% in July. The chart shows that mortgage approvals responded to the very low level of interest rates, reaching the £26b. - £27b. a month level towards the end of last year. This was roughly 50% up on late 2002 and ought to have dispelled gloomy forecasts about house prices in early 2004. Mortgage approvals have subsequently levelled-off, perhaps partly because of the rise in base rates to 4%, but they remain far above the figures in 2001 and 2002.