TD Bank Financial Group

TD Economics

Topic Paper

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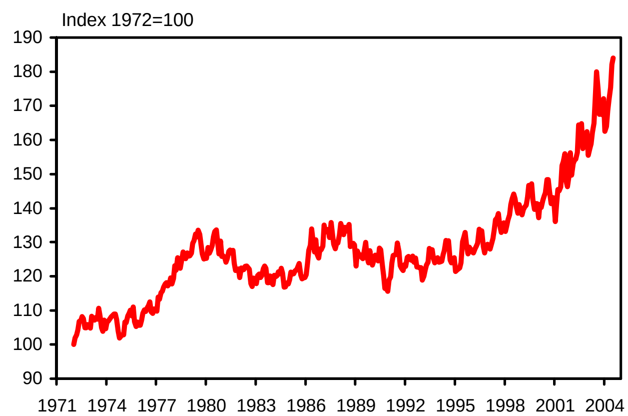
U.S. HOUSING MARKET: TIME TO PAY THE PIPER

Asset markets have been a key contributor to U.S. economic growth over the past decade, and while equity markets led the charge in the latter half of the 1990s, the housing market has recently provided a major kick to GDP and to personal wealth. Although residential investment generally encompasses about 5 per cent of real GDP in the United States, it has accounted for 13 per cent of the increase in economic activity since 2002. And that doesn't even begin to touch on the boost to consumer spending that stemmed from refinancing activity and capital gains on home equity. To understand the origin of the housing boom, one needs to look no further than the low interest rate environment created by the central bank, which pushed borrowing costs to the floor in an effort to shore up a fragile economy.

However, it is now prudent to ask whether the Federal Reserve is a victim of its own success. Following an extended period of low interest rates, there is an ever-present danger that an asset bubble has formed in the housing market – not unlike that of the equity bubble in early 2000. Existing home sales reached new highs this summer, while new home construction remains on a tear. Accordingly, home prices have climbed 26 per cent in just three years in a low inflation environment that has resulted in a near-equivalent *real* appreciation in home values. What's more, housing demand remains supported by highly stimulative interest rate settings, reflecting the fact that the Fed funds rate is a good 250 basis points below neutral estimates of 4 per cent.

With the Fed now determined to rebalance monetary policy towards less stimulative settings, the U.S. housing market is poised for a price correction in the order of 9-to-15 per cent. But, unlike previous housing bubble cycles in the 1970s and 1980s, the economic fallout is likely to prove more limited this time around, though the anticipated price correction will still carry an economic price tag.

U.S. REAL EXISTING HOUSE PRICES



Source: Bureau of Labour Statistics, National Association of Realtors, TD Economics

Housing going full tilt

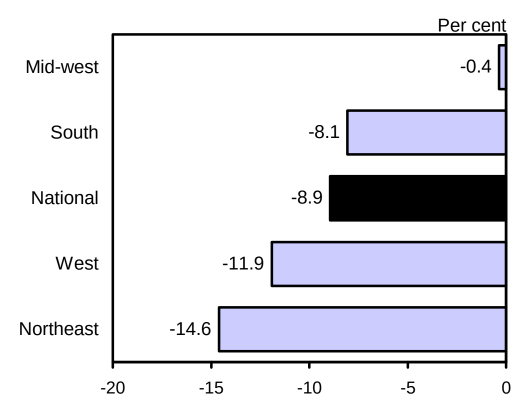
The Federal Reserve not only made quick work in lowering interest rates by 525 basis points from the start of 2001 to November 2002, but it also kept rates at a four decade low for the 16 months that followed. That's both lower and longer than any other industrialized nation. The Fed started to tighten monetary settings this summer, raising rates by 50 basis points to 1.50 per cent, but housing markets are still benefiting from a highly stimulative interest rate environment. Not to mention that mortgage rates are only now starting to reflect the recent Fed tightening moves, as bond prices actually rallied in the midst of Fed hikes this summer due to geopolitical concerns.

With a fire burning under housing demand, existing home sales climbed to a record 6.95 million annual units in June and only marginally backed off that level in July. Meanwhile housing starts have been hovering at a sky-high annual rate of 2 million units for almost a year – the likes, of which, has not been seen since the late 1970s. Accordingly, prices have followed suit. There is no escaping the fact that the rise in inflation-adjusted prices for existing home sales in the current cycle dwarfs the price increases seen in the last two bubble periods in the late 1980s and late 1970s – both, of which, subsequently resulted in *real* price declines in the order of 12-to-15 per cent over a three year period. Perhaps, the single biggest difference between then and now is that the recent run-up in prices is more a function of sound fundamentals rooted in high affordability, as opposed to speculative buying activity. Even so, a bubble by any other name, is still a bubble. And, the U.S. now faces the very real prospect that pent-up demand for homes is virtually exhausted – evident by homeownership and rental vacancy rates that are both straddling all-time highs. As the Fed gradually tightens monetary policy, this dwindling supply of available buyers will get increasingly squeezed out of the market.

Location, location, location

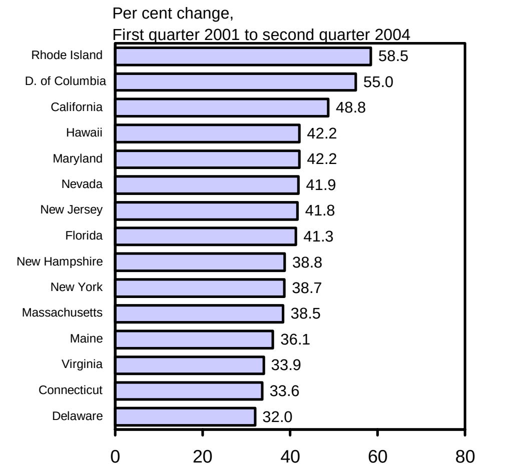
By our estimates, nationwide nominal house prices could decline by 9-to-15 per cent, but the pain will not be equally shared across regions and states. In order to calculate the potential economic impact of local price corrections, it is important to weight markets according to their relative nationwide market shares. For instance, an 11 per cent

POSSIBLE PRICE CORRECTION IN EXISTING HOME SALES



Source: National Association of Realtors
Forecast by TD Economics

EXISTING HOME PRICES



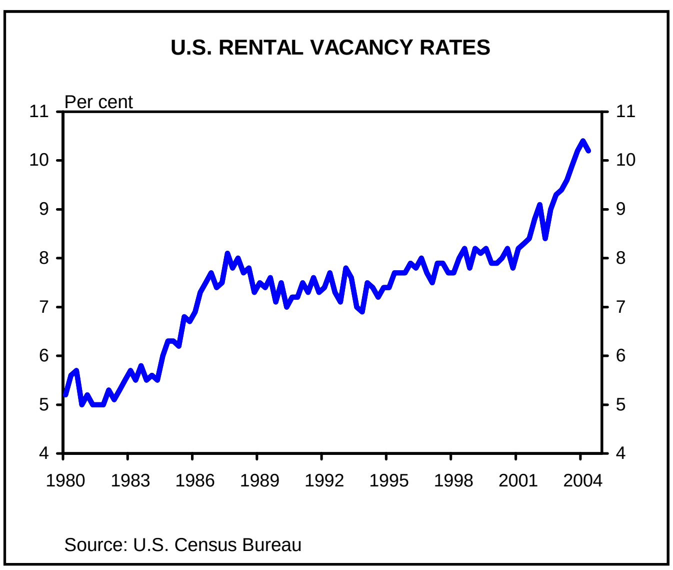
Source: Office of Federal Housing Enterprise Oversight

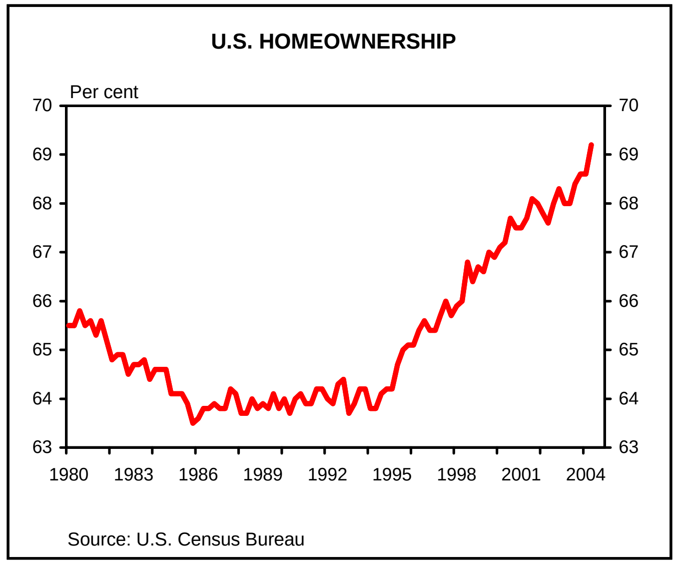
price decline in California where the median price of an existing, single-family detached home in July was $463,540 (USD) would carry a greater knock-on impact to the broader economy and household wealth than an equivalent percentage price decline in a state where there are fewer homes and/or lower valued homes. In doing so, it is clear that the anticipated price-correction is more heavily skewed towards homes located in the Northeast and West regions. Drilling deeper we find that even though homes located in the Northeast represent only 13 per cent of the nationwide market, practically every state in the area has experienced outsized price increases since 2001. In contrast, the West makes up a significantly larger share (one-third) of the U.S. resale housing market, but most of the heated demand has been concentrated in only a handful of states – mainly, California, Hawaii and Nevada where home prices have appreciated more than 40 per cent in the past three and a half years. The same is true for the Southern region, where the District of Columbia, Florida, Maryland and Virginia dominate. As a result, these localized housing markets are susceptible to greater price corrections than suggested by the regional and national statistics.

No need to panic…

Before rushing to post a “for sale” sign on the front lawn, it is important to note that price declines will likely occur incrementally over a period of three years or more, rather than as a one-year shock. In past housing bubbles such as the one in the late 1980s, the market was flooded with supply from overbuilding. The opposite is true in the current cycle with the supply of homes hovering at a three-decade low. Since many builders have had to finance their capital through financial markets and banks, there hasn't been a big speculative burst in residential construction. As a result, there is not a physical constraint on supply, but rather, the lag in supply relative to demand strength is one of the key factors that suggests the risk of a all-out collapse in prices is remote. In addition, home buying activity is consistent with strong demand fundamentals related to a low interest rate / low inflation environment. The rise in rental vacancy and homeownership rates is indicative of individuals shifting from the rental to the buyers market. In contrast, during the second half of the 1980s, homeownership rates were relatively stable, bouncing around in a 63-to-64 per cent range in spite of strong buying activity, suggesting that a greater proportion of homebuyers were likely doing so as investors. Since the most recent purchases have been for a primary residence, individuals are unlikely to exit from the market en mass.

The impact on household finances and the greater economy is expected to also be more limited than previous boom-bust cycles. Past housing bubbles were pricked when the Fed funds rate was pushed dramatically higher to ease inflationary pressures that were building as a result of broader domestic economic strength. Ensuing economic recessions crushed housing demand as real per capita after-tax incomes declined and unemployment rates rose. This time around, the Fed has the benefit of a moderate domestic economic expansion alongside relatively muted inflationary pressures, affording the opportunity to gradually inch interest rates up to rebalance monetary policy. In addition, the Fed funds rate is only expected to rise to about





3.50 per cent by the third quarter of next year, well below levels seen in past boom-bust cycles. This relatively low level of interest rates would not be sufficient to choke off economic growth, allowing for continued income and spending growth.

…but not home-free

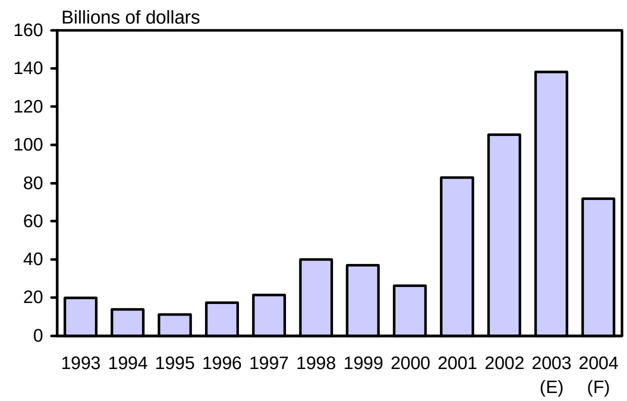
That's not to say the U.S. economy gets off Scot-free. In a subdued 2 per cent inflation environment – which is probably consistent with Fed's implicit inflation target – real home prices would contract about 3 per cent per year under our scenario. Most research estimates – including work done by the IMF and the Fed itself – indicate that individuals spend 4 to 6 cents of every dollar in realized housing wealth. Naturally, the opposite force is at work when house prices decline. But this still produces a relatively small impact on the broader economy, shaving the level of GDP by little more than 0.3 per cent over the three years, or an indiscernible 0.1 percentage point annually. However, the regional impact differs from the national, as more heated housing markets would bear a disproportionate adjustment in both prices and economic activity. Not to mention that the house-price impact would not occur in isolation, as broader consumer spending would also ease in the face of higher borrowing costs, while falling home prices might lead Americans to increase their savings rate.

Homeowners have increasingly tapped into housing wealth by using mortgage equity withdrawals to fund consumption. This was done either though home equity lines or by cashing out some equity when refinancing mortgages. In 2003, cashed-out equity amounted to an estimated $138 billion, which is more than four fold the level seen in 2000. The government-chartered real estate agency, Freddie Mac, estimates that this will drop to $71 billion in 2004 and we would expect further reductions in the following years as higher interest rates squeeze out the cost advantage of refinancing mortgages. More importantly, however, a survey conducted by University of Michigan in 2002 found that about 25 per cent of funds made available through refinancing was put towards discretionary spending (i.e. vacations, vehicle purchases), while about 43 per cent of the funds was directed towards home improvements. Clearly, a drop-off in refinancing activity would ripple through the broader economy by dampening personal spending growth.

Equally important is the fact that the household sector is carrying more debt than any other time in history and that mortgage debt service ratios (DSR) are on an upswing – both, of which, make households more exposed and, therefore, more sensitive to relatively smaller changes in interest rates. Interest rate sensitivity is further exacerbated by the fact that an increasing proportion of mortgages is held in adjustable rate term structures. As interest rates rise, holders of these mortgages will have to direct an increasing proportion of income to servicing debt interest costs rather than other principle payments and other spending initiatives.

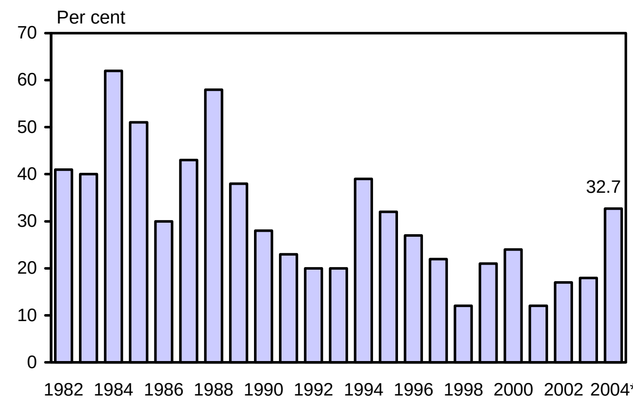
Lastly, there is a remote chance that mortgage debt holdings by financial institutions coupled with rising debt service costs could threaten U.S. financial stability, as lending banks are on the hook for default risk. At the moment, the U.S. banking system is healthy, with relatively high capital ratios, low nonperforming loan ratios (especially with mortgages) and stable profitability. And, even though we estimate that DSR mortgage costs could rise towards a 9.7-to-9.8 per cent range in 2005 from a current 9.6 per cent of disposable income, it remains below levels seen in the boom-bust period of the late 1980s. Since then, banks have also reduced their exposure to mortgage default risk through the growing use of mortgage-backed securities. According to the IMF, mortgage backed securities comprise about 57 per cent of home mortgages in the U.S., compared to 8 per cent in the U.K. and 18 per cent in Australia. As a result, default risk has been largely shifted to investors, though banks still bear the risk from remaining direct mortgage holdings.

TOTAL HOME EQUITY CASHED OUT



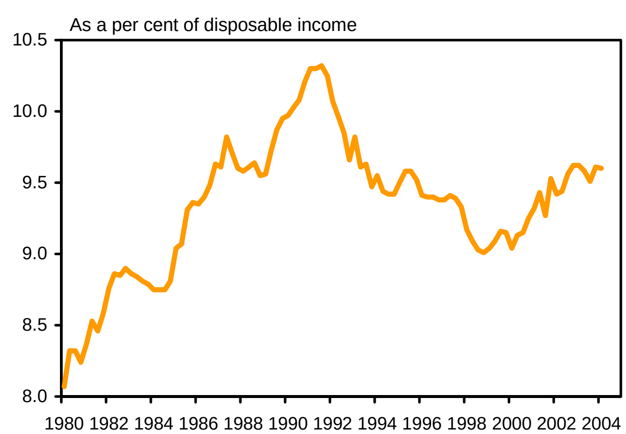
Source: Freddie Mac

PERCENTAGE OF MORTGAGES WITH ADJUSTABLE RATES

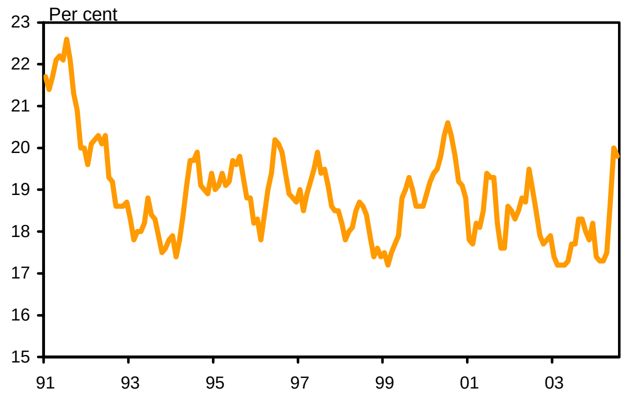


* Year-to-date: July
Source: Federal Housing Finance Board

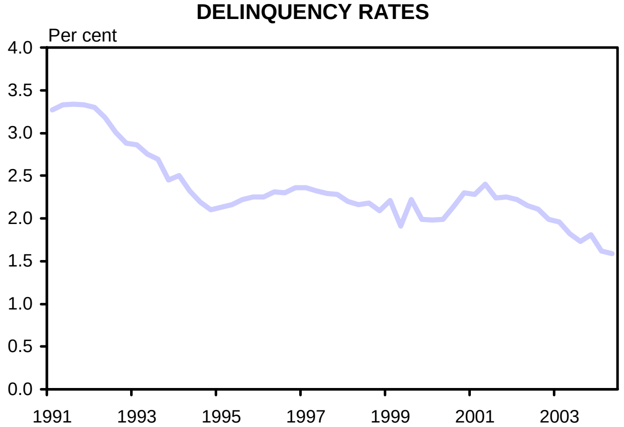
HOUSEHOLD MORTGAGE DEBT SERVICE PAYMENTS



Source: Federal Reserve



In fact, the issue of mortgage default by homeowners may be less of a problem on a national scope, but more of one on a regional basis. Total mortgage payments still represent about 19-to-20 per cent of total income, and that has been the case over the last decade – not to mention that it is a good 5 per cent below the peak level in 1989. However, there has been a recent upswing in the ratio of mortgage payments to income, which means that a homeowner's ability to pay debt is being increasingly squeezed. And, while the level is not out of line with past experiences, this is less the case in the New England region, where after-tax incomes have grown considerably slower than mortgage carrying costs. A similar phenomena is likely at work in some of the southern and western states where home prices have rocketed up.



Time for Fed to walk the line

There is no question that the risks related to the U.S. housing market are plenty, but the experiences presently unfolding in Australia and the U.K. suggest that the transition to higher interest rates and softer home prices need not be disastrous. Central banks in the latter two economies questioned the accelerated rise in home prices under stimulative domestic interest rate settings, and have subsequently raised rates toward more neutral levels in an effort to siphon off some of the demand-exuberance. The degree of success varies between the two countries – with Australia experiencing outright declines in home prices, while the U.K. has seen demand ease and price growth flatten – but neither has suffered any major economic fallout as a consequence (see Box 2 for details). Their success is partly related to the fact that both economies maintain stellar employment and income gains. This not only provides the necessary means for continued consumer spending, but it also shores up households' ability to pay debt costs.

We believe the odds favour a similar outcome for the U.S. Although American employment growth is nowhere near the robust levels seen in the U.K and Australia, the U.S. economy is expanding at a solid clip and income

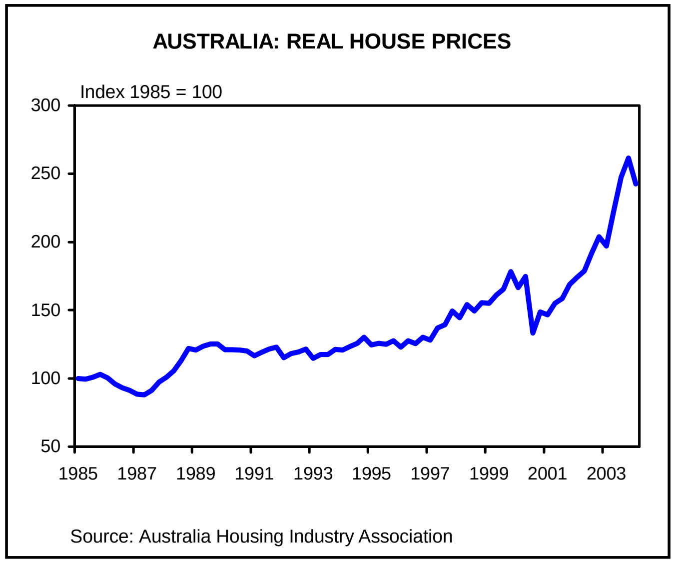
Box 1: Longer term prospects look good

Although our analysis shows a near-to-medium-term price correction in the U.S. housing market, the longer-term prospects - which are driven by demographic trends - look more promising. The U.S. has been experiencing an influx of immigration over the past decade, a trend recently confirmed in the 2003 Current Population Survey. While new immigrants have lower homeownership rates than native-born Americans, with time many foreign-born households join the ranks of owners. This, in combination with the aging of the baby boomers into their peak income and wealth years, in addition to the replacement of housing units lost from the existing stock, bodes well for housing investment over the decade to come. A recent study by Harvard's Joint Center of Housing Studies concluded that the level of new housing construction could reach 18.5 million units through to 2015, and possibly top 19.5 million if immigration continues at current levels - though this is a wild card. If correct, housing starts would average 1.85-to-1.95 million units annually over the decade.

Box 2

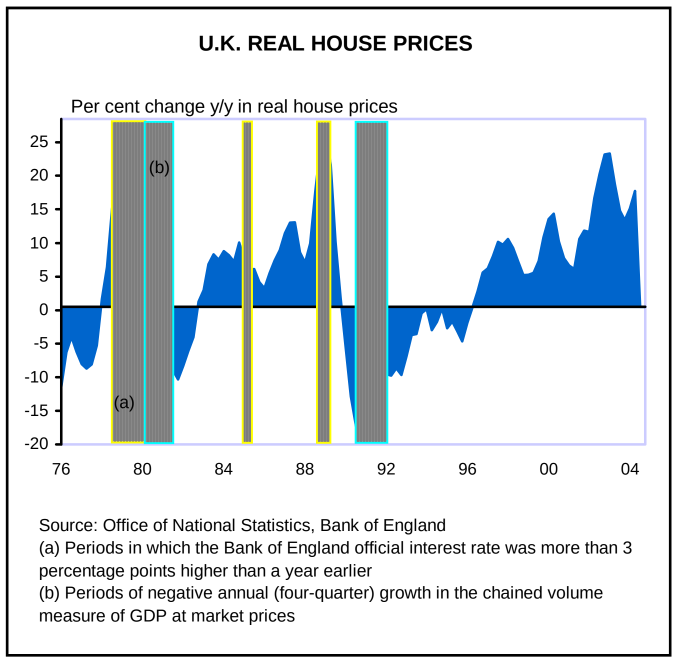
Taking a page from the Australian chapter

The Australian central bank (RBA) was among the first to question the soundness of its local housing market. As early as mid-2002, the RBA took note of the rapid expansion of household debt and the risk that households were increasingly becoming over-extended. This, in combination with solid economic growth and dwindling economic slack propelled the RBA to raise its benchmark cash rate 100 basis points to 5.25 per cent by the end of 2003. So far, their efforts have been met with some success. The RBA noted in its *Statement of Monetary Policy* in August that house prices have declined in the first half of 2004, home auction clearance rates have fallen sharply and remain well below the average, and demand for housing finance has also eased. "These trends are indicative of an easing in demand pressures in the housing market after the overheated conditions that prevailed last year." Remarkably, there has been little collateral damage to the broader economy and household finances from the deterioration in home values. GDP growth did slow markedly to 0.2 per cent (non-annualized) in the first quarter, but this reflected slowing demand in all components of final domestic demand except household consumption, and a 0.6 per cent advance in the second quarter was again led by consumer expenditures. The RBA has noted, however, that the aggregate household debt-servicing ratio increased in the first quarter to 9.4 per cent of disposable income, in part due to the interest rate increases. But, at present, indicators of financial stress for the household sector, such as loan arrears, continue to suggest that the current debt-servicing burden is not significantly affecting household behaviour.



The U.K.: Next up to bat

A similar situation is presently unfolding in the U.K. where the central bank has raised its benchmark repo rate by 125 basis points since November 2003 to a current level of 4.50 per cent. Here too, the Bank of England (BoE) frets that a housing bubble is in their midst, with nationwide nominal prices rising at a sustained double-digit annual pace since 2001. There are emerging signs that prices are now easing – the quarterly increase in the Halifax and Nationwide indices eased in July for the second consecutive month, while the ratio of house sales to stocks on estate agents' books and mortgage approvals declined – though the deceleration is in its infancy and the impact on future consumption growth is still a wildcard. The adjacent graph indicates that past exit strategies by the BoE from bubble cycles have corresponded with an eventual contraction in real economic activity. As a result, the Bank is inching rates up cautiously this time around in an effort to limit the economic fallout.



growth remains strong. And, there is every reason to believe that this will continue to be the case. The U.S. economy has already added over 1.4 million jobs since the start of the year and a broad list of forward-looking indicators – such as the ISM employment subcomponent, initial jobless claims, overtime hours and temporary hires – are all in the collective camp for continued job expansion, in the order of 200,000 new positions per month over the next 12-18 months. This would provide a critical partial offset to the dampening impact to spending that would accompany a house price correction.

Nevertheless, there will be a number of restraining influences that are too great to ignore – mainly a reduction in cashed-out equity loans and rising monthly mortgage obligation costs. We are also mindful of the possibility that consumer spending could be further curtailed as homeowners become psychologically impacted from a deterioration in housing wealth, even if it's just "on paper". The Fed will be cognitive of all these risks and will stick to gradual measured rate increases, especially in the absence of heated consumer inflationary pressures. But, in the end, there will be a visible impact on consumer spending, particularly related to big-ticket purchases and home renovation items. We anticipate consumer spending will expand within a more tempered 2.5 to 3.0 per cent range over the next couple of years rather than the recent tracking of 3.0 to 3.5 per cent. Thanks to stronger growth in business investment and exports, this, in turn, corresponds to real GDP growth of 3.2-to-3.5 per cent – which is a healthy, but far from booming, pace of expansion.

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REGIONAL BREAKDOWN

Northeast	Midwest
Connecticut	Illinois
Maine	Indiana
Massachusetts	Iowa
New Hampshire	Kansas
New Jersey	Michigan
New York	Minnesota
Pennsylvania	Missouri
Rhode Island	Nebraska
Vermont	North Dakota
	Ohio
	South Dakota
	Wisconsin

Source: National Association of Realtors

South	West
Alabama	Alaska
Arkansas	Arizona
Delaware	California
D. of Columbia	Colorado
Florida	Hawaii
Georgia	Idaho
Kentucky	Montana
Louisiana	Nevada
Maryland	New Mexico
Mississippi	Oregon
North Carolina	Utah
Oklahoma	Washington
South Carolina	Wyoming
Tennessee	
Texas	
Virginia	
West Virginia	

Source: National Association of Realtors