TD Economics

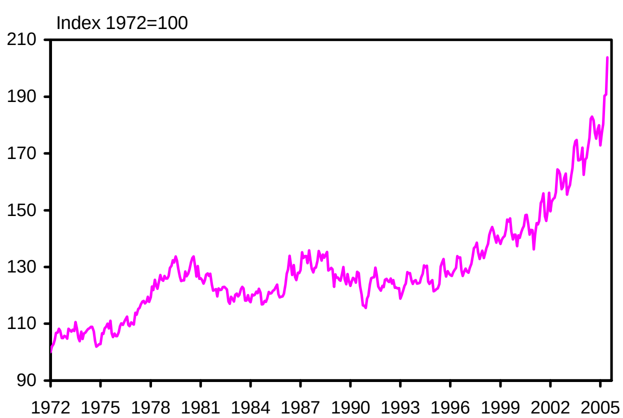
Topic Paper

August 18, 2005

U.S. EXPANSION ON 'BORROWED' TIME

The rapid descent in interest rates in 2001 kick-started one of the biggest housing booms in U.S. history. Even in inflation-adjusted terms, the rise in national house prices in the current cycle dwarfs past periods that were known to be bubbles. Since 2001, inflation-adjusted prices for resale homes have clocked in at an average annual gain of 9.4 per cent, compared to just under 5 per cent during the late-1980s and about 7 per cent in the late-1970s. And, the current housing boom is not only proving to have more staying power than either of the prior two cycles, but it is now drawing comments from the Chairman of the Federal Reserve and other central bankers, who acknowledge that housing markets in some regions appear to be "frothy". Market pundits remain locked in a debate as to which cities and states are the most at risk of a price correction. Our analysis suggests that this is not even a necessary condition for the economic expansion to be adversely affected. Rather, if nominal nationwide prices flatten, or even expand at a rate that is more consistent with historical trends, a major source of economic stimulus known as the wealth effect would still fade and dramatically slow U.S. economic growth.

The wealth effect refers to the dollar amount an individual will spend in response to a sustained and often unexpected change in their wealth. In the U.S., the resulting wealth effect from a rapid appreciation of real estate assets and the greater ability to directly tap into housing wealth through home equity lines of credit has been so great that it alone has accounted for, on average, half of the growth in real consumer spending over the past two and a half years. Likewise, as credit and housing demand eases against a backdrop of higher interest rates and record personal debt loads, a wilting wealth effect will be the catalyst of a mid-cycle slowdown that will see annual growth in U.S. economic activity ease to less than 3 per cent in the second half of 2006.



Last plotted: June 2005; Source: Bureau of Labour Statistics, National Association of Realtors,TD Economics

The boom/bubble debate in brief

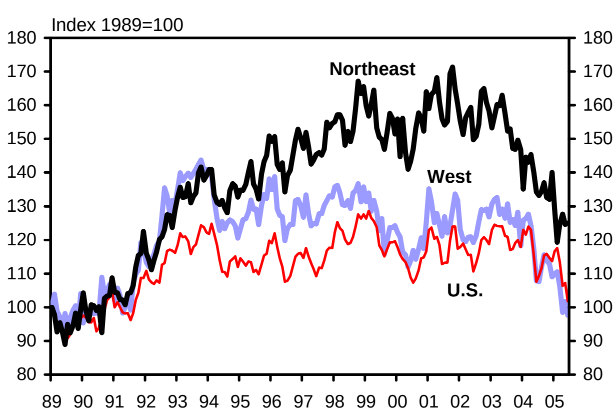
Mention the housing market to any group of individuals and a discussion is sure to erupt as to whether it is in the midst of a healthy boom cycle or whether it has taken on the characteristics of a bubble. Part of the difficulty of arriving at a consensus on the issue is related to the fact that there is no uniform national housing market in which to ground the analysis. Rather, housing statistics vary considerably between regions because demand and supply are not only driven by macro factors like interest rates, but also by unique local elements, such as the rate of migration in and out of a region, the pace of income and job growth in a jurisdiction, land constraints, development restrictions and so on.

It would be an over-simplification to characterize the entire U.S. housing market as a bubble, but there is reason to believe that a number of major urban centers are increasingly at risk of a price correction. Even Fed Chairman Greenspan noted during his testimony to Congress in mid-July that, "there do appear to be, at a minimum, signs of froth in some local markets where home prices seem to have risen to unsustainable levels. Among other indicators, the significant rise in purchases of homes for investment since 2001 seems to have charged some regional markets with speculative fervor."

Housing demand has been so firmly rooted, that even though mortgage rates have been largely flat-to-lower since mid-2004, affordability has dramatically eroded in the West and Northeast regions due to the rapid escalation in home prices. In fact, affordability in the West in June was as low as it had been during the 1990 recession, consistent with data showing that only 17 per cent of Californian households currently qualify for a mortgage on a median priced home.[1] This, in turn, has resulted in the increased preference for subprime interest only (IO) mortgages. Once reserved for higher credit quality borrowers, these loans are now common place and more likely to be used by borrowers who are affordability constrained. Unfortunately, this introduces a new element of risk into the economy if a large proportion of IO borrowers is composed of homeowners stretching to buy a house where the future carrying costs may turn out to be larger than justified by their income prospects. Since the increased use of IOs is a relatively new phenomenon, only time will tell if the default risk is indeed greater.

Among other bubble-like candidates our list would include (but is not limited to) Las Vegas, Boston, Los Angeles, Miami, New York, Philadelphia, San Diego and Seattle. In their respective states, house prices relative to personal incomes have risen to levels that either rival or exceed that seen in the late-1980s – now known to have been a housing bubble. And, the price-to-earning (P/E) multiple is also extremely elevated within these cities relative to past experiences. The P/E multiple is a variant of that used to value corporate stocks, but in this case it represents house prices as a multiple of the rent a home could earn. The above table indicates that P/E multiples for a number of these cities are 40-to-50 per cent greater than their respective past peaks. Although we've highlighted just a handful of cities that may be in the midst of a housing bubble, personal incomes in these economies account for about one-quarter of that for the entire United States. If a price correction, or even flattening out in home prices, occurred within these cities, there would surely be knock-on effects to the broader economy.

HOME AFFORDABILITY INDEX



Affordability Index measures the ability of a family earning a median income to purchase a median-priced home; Last plotted: June 2005
Source: National Association of Realtors

PRICE-TO-EARNING VARIABLES FOR SELECT U.S. CITIES

	1993 -2000	Regional peak in late 1980's bubble*	Current**	Deviation from prior peak (%)	Deviation from 1993-00 period (%)
U.S.	1.04	1.12	1.40	25.4	35.7
Boston	1.08	1.39	1.69	21.5	56.1
Los Angeles	1.05	1.32	1.85	40.0	76.4
Las Vegas	1.01	1.08	1.58	46.3	56.2
Miami	1.03	1.22	1.79	46.2	73.9
New York	1.05	1.42	1.68	18.5	59.0
Philadelphia	1.01	1.27	1.63	28.7	60.6
San Diego	1.04	1.21	1.82	50.3	75.7
San Francisco	1.03	1.26	1.76	39.9	71.1
Seattle	1.03	1.14	1.40	23.5	35.8

*Peak in P/E ratio in respective markets; **Current = last data point (Q1-05)
Source: Bureau of Labor Statistics, OFHEO, TD Economics

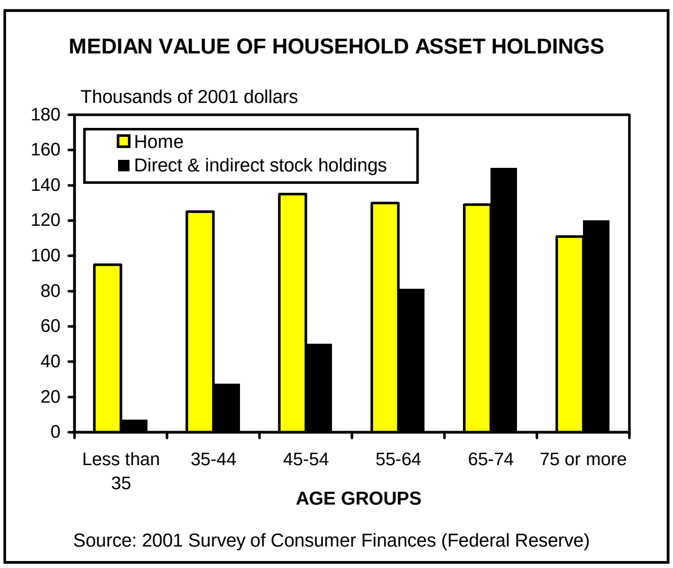
Housing wealth has a broad reach

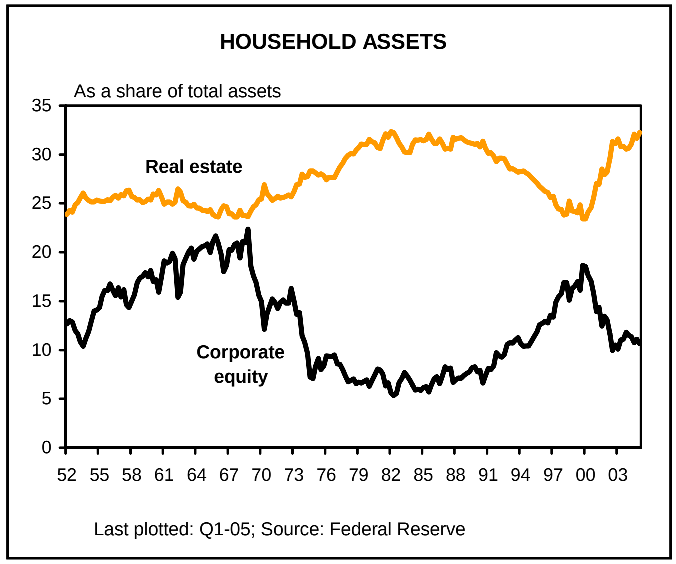
Small or regional movements in the housing market can have more broad sweeping economic implications partly because residential real estate assets make up a large portion of American personal balance sheets. Real estate represents one-third of the total asset holdings of Americans, which is nearly double the share of combined direct holdings of corporate stocks and mutual funds. At the time of the 2001 Survey of Consumer Finances (SCF), 68 per cent of households owned a home compared to 52 per cent who held stocks. Although the next SCF won't be available until early 2006, it's probably safe to bet that this trend has become more pronounced, given that homeownerships rates rose to 69.1 per cent in the first quarter of 2005. Certainly, more timely balance sheet data from the Federal Reserve indicate that housing wealth is becoming a bigger slice of the household asset-pie.

Housing assets are also more evenly distributed across age and income brackets than most other assets, particularly in comparison to corporate stocks. The top one percent of stockholders controlled 33.5 per cent of stock wealth in 2001, while the top one percent of homeowners controlled only 13 per cent of home equity. In addition, the graph below shows that the median value of direct and indirect holdings of stock is heavily concentrated in older individuals, whereas the age distribution is broadly represented when it comes to housing assets. The importance of home ownership across income and age stratums coupled with the heavy weight it carries within household balance sheets is one reason why even a modest downcycle in housing markets could adversely impact the economic expansion.

The wealth effect

A second reason stems from the influence rising home prices have on consumption behaviour, a concept commonly referred to as the wealth effect. Measurement of the wealth effect has yielded different results over the years in terms of its magnitude, but there is little question that the phenomenon exists. The Federal Reserve often credited the rise in stock wealth during the late-1990s as a critical contributor to consumption growth during that time, with the belief that 3-4 cents of every additional dollar of stock wealth was eventually reflected in increased consumer purchases. Naturally, the opposite was true when equity markets reeled from the bursting of the tech bubble in 2000 and terrorist attacks in 2001. Shortly thereafter, the Fed estimated that the resulting negative wealth effect held back consumer spending by about 1 ½ percentage points in 2002, with the lagged impact continuing to dampen expenditure growth to a lesser extent for another two years.





For some households, losses in stock portfolios were mitigated by significant gains in the value of residential real estate, and this impact has increasingly captured the attention of the Fed and analysts alike. Gains in consumption related to gains in housing wealth are not only believed to be greater than that of stock wealth, in the neighborhood of 5.5 cents on the dollar, but also more immediate. Within one year, about 80 per cent of the housing wealth effect is realized, whereas it could take almost five years for stock wealth to approach 80 per cent of its long-run impact.[2] This difference in spending behaviour is related to the more stable nature of home prices, as nominal price declines are generally rare. Because of this, homeowners perceive gains in real estate values as largely permanent. In contrast, wealth generated from stock market gains is volatile and sometimes fleeting. And, most stock market wealth effects are associated with the highest income groups where the inclination to spend out of every dollar is thought to be less relative to lower income groups where a greater proportion of housing capital gains are realized.

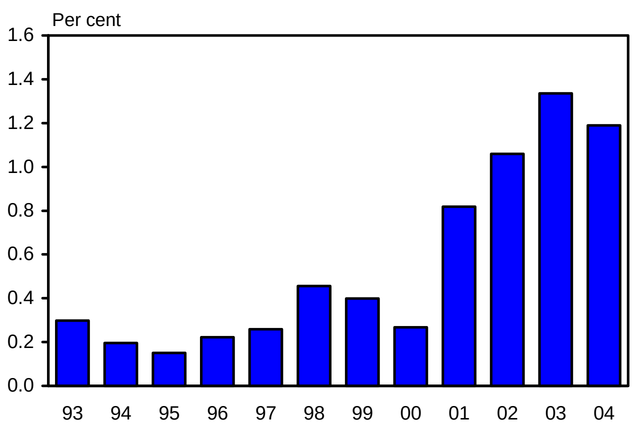
The multiple channels of housing wealth

The impact of the housing wealth effect on consumption behaviour cannot be understated, particularly because it occurs through multiple channels. For one, homeowners directly build wealth through an appreciation in residential real estate values and accumulation of home equity. In addition, a home acts as a store of wealth that can be accessed through home equity loans or by refinancing a home with a bigger mortgage in order to use the extra funds to finance other intentions. Lastly, an individual can take advantage of their home equity without increasing debt by selling their home to purchase another, using only a portion of the realized capital gains from the former.

The combination of a low interest rate environment and a 40 per cent rise in resale home prices in the past four years (2001 to the first quarter of 2005) has prompted an increasing number of Americans to tap into their home wealth through one or more of these available instruments. For instance, homeowners extracted $141 billion in home equity through refinancing in 2004 – five times the level seen prior to 2001. Home equity lines of credit (HELOCs) are leaving a big footprint, sized at $424 billion in the first quarter of 2005 (alternatively, 3.4 per cent of GDP).

The different vehicles of wealth extraction not only make a home more liquid, but the propensity to spend out of each one also varies. For instance, the intrinsicly slow and steady nature of home price appreciation in household balance sheets is associated with a marginal propensity to consume (MPC) of about 5.5 cents per every dollar increase in housing wealth. In contrast, the wealth effect from cashed-out equity and realized capital gains is arguable greater since the homeowner’s behaviour is dictated to a greater extent by transient influences – a drop in financing costs, a surge in home prices. Likewise, the impact on expenditures from these components also tends to be volatile and temporary. A study by the Survey Research Center of the University of Michigan in 2002 found that 16 cents of every dollar of cashed-out home equity went to consumer expenditures with another 35 cents on the dollar directed at home improvement. Other consumer surveys place the MPC estimate on every dollar increase at 25 cents for discretionary purchases, excluding money spent on renovations.[3]

HOME EQUITY CASHED OUT AS A SHARE OF GDP



Source: Freddie Mac, Bureau of Economic Analysis, TD Economics

The power of housing wealth

Applying various MPC estimates to the above categories of wealth and capital extraction, we found that by far the largest contributor to real consumption growth, and hence real GDP, is the appreciation in real estate values. Even though it has one of the smaller estimated MPCs, it is a heavy weight in household balance sheets, tipping the scales at US$19 trillion in the first quarter of 2005. As such, a relatively small percentage change in its value can have a big impact on consumer spending. Since 2004, the rapid rise in inflation-adjusted real estate assets has helped to add just over one percentage point to the annual growth rate in real personal consumption expenditures, about double the influence seen between the years 1998 to 2003. Conversely, since real consumption represents 70 per cent of the economy, this wealth effect implicitly accounted for 0.7 percentage points of the growth rate in annual real GDP over the past year. Meanwhile, the other spending channels – i.e. cash-outs and realized capital gains – added about 0.7 percentage points to real spending growth in 2004. Tallying it all up, the total housing wealth effect is to credit for half the annual growth in real personal expenditures for the better part of the past two and a half years!

Since the wealth effect is a powerful stimulus to consumption growth, clearly the reverse would be true in the event of a slowdown in house price appreciation or reduction in refinancing activity under the weight of rising interest rates and heavy consumer debt burdens. In a ‘best case’ scenario, the various components would expand at quarterly growth rates that are more consistent with historical behaviour (i.e. the notion of mean reversion). We found that over the course of a year, the entire consumption stimulus from wealth would not only be wiped out, but would actually detract from spending growth for four-to-six quarters. Note that in all of our assumptions a nominal house price correction is never imputed. And yet, if all else were held constant, the annual growth rate in real spending would be shaved as much as 0.7 percentage points. By no means is this an alarming figure, however, boom times are usually followed by a period when growth rates underperform historical norms. In other words, given the rapid escalation in home prices in the current cycle, prices may not simply revert back to past growth trends, but rather, increase more slowly or even decline. In such circumstances the negative wealth effect would be larger and the dampening impact on real consumption would be that much greater. In fact, if the unwinding of the wealth effect mimics the late-1980s experience, we estimate that real spending growth would be shaved by as much as 1.4 percentage points within four quarters – double the impact of the best-case scenario. Of course, our measurements only consider the wealth effect and there is a danger that in conjunction with this impact, consumer confidence is seriously undermined, slowing spending growth to a crawl.

Offering some consolation is that the wealth effect from housing is rather immediate and any drag to spending growth would be reasonably short-lived. Following the bursting of the late-1980s bubble, our estimates show that the wealth effect subtracted 0.6-to-1.1 percentage points from the annual growth rate in real expenditures over the course of a year, after which the drag to growth in the following two years was modest by comparison.

'Best-case' assumptions

For real estate assets:

Nominal residential real estate appreciates 1.6% q/q
(1992-2000 = 1.4%; 1995-2000 = 1.8%)

PCE housing deflator rises by 0.7% q/q
(1992-2000 = 0.7%; 1995-2000 = 0.8%)

For capital gains proxy:

Nominal existing home prices +1.0% q/q
(equivalent to average over 1995-2000 period)

Units sold ease from 6.2mn Q1/05 to 4.5mn Q4/06
(above 4.2mn avg from 1992-2000 and 1995-2000)

For cashed-out equity proxy:

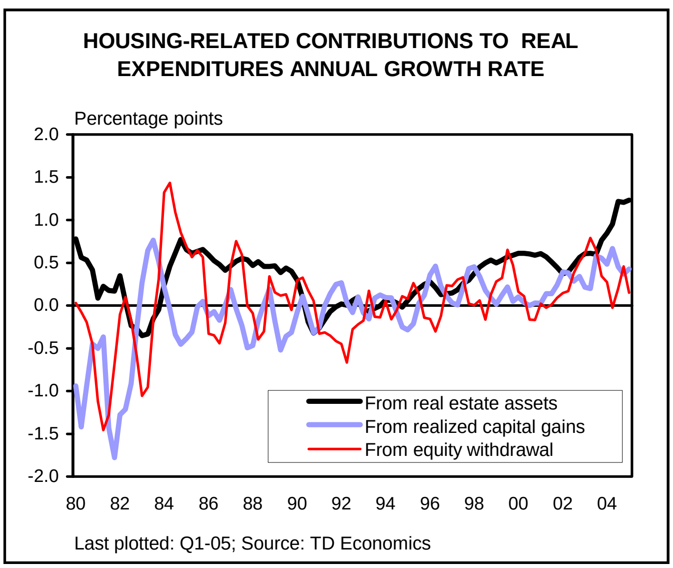
Residential investment = 1.6% q/q
(1992-2000 = 2.1%; 1995-2000 = 1.6%)

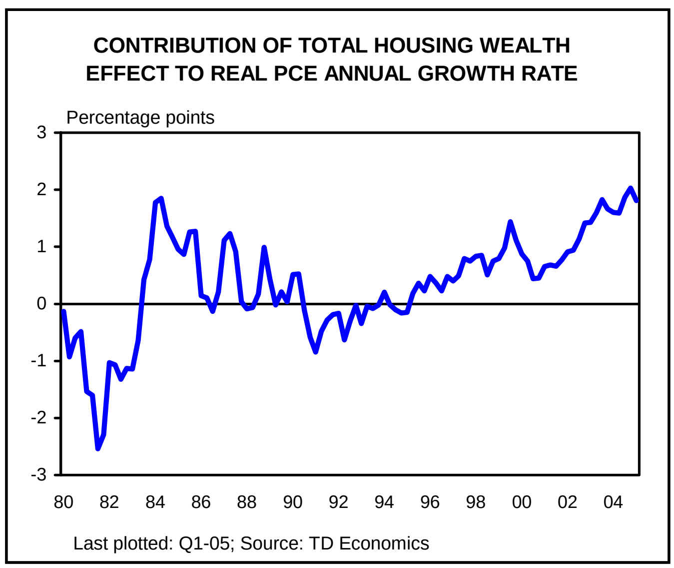
Home mortgages = 1.7% q/q
(1992-2000 = 1.6%; 1995-2000 = 1.7%)

Will history repeat?

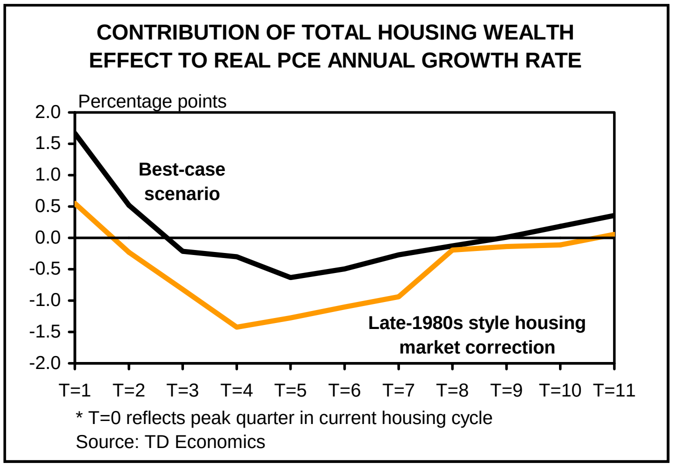
Could the U.S. economy be poised to repeat the past and come in for a hard landing? Since the mid-1970s there have only been two episodes of extended declines in real home prices. The first occurred from 1979 to 1982 (-12.4 per cent) and the second took hold from 1988 to 1990 (-14.5 per cent). In both cases, restrictive monetary policy and the subsequent erosion in affordability were critical drivers, which seems to strike a similar cord with the current cycle. However, there are a number of key distinctions. First, the supply of homes is quite low, mitigating the possibility of a supply glut in the event that demand growth eases. On the demand side of the equation, low interest rates, a stable inflation environment and low unemployment have provided more sound footings for housing demand this time around. And perhaps most importantly, since the Fed looks to have stayed ahead of the inflation curve this time around, we forsee only modest upward pressure on mortgage rates. The Fed funds rate is expected to inch up to a peak level of 4.50 per cent in early 2006, with 30-year Treasuries following suit to about 5.05 per cent. Since mortgage rates are driven by bond yields, this would translate into a 55-65 basis point increase in fixed long-term mortgage rates, which can hardly be considered oppressive given that the current level of 5.90 per cent is hovering near a record low. And, it is a far cry from the late-1980s cycle when the effective fed funds rate rose above 10 per cent and conventional long-term mortgage rates were in excess of 11 per cent.

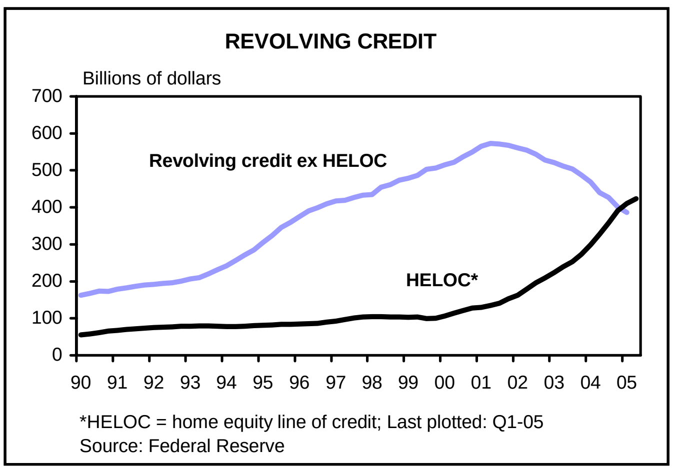
Still, there is one variable present in the current cycle





WEALTH COMPONENTS AT TROUGH IN SCENARIOS	Last recorded quarter	Best case scenario	Corrective scenario
Real estate assets (y/y%)	+11.4	+3.3	-3.0
Capital gains proxy (bns)	403	310	216
Cashed-out equity proxy (bns)	565	230	114
Imputed real home prices (y/y%)	+11	+1	-14
Impact on real PCE growth (percentage points)	--	-0.7	-1.4
All figures are inflation-adjusted; Source: TD Economics			





that was not as prevalent in the prior boom cycles – high consumer debt loads. Household debt is in uncharted territory at 121 per cent of after-tax incomes and, despite low interest rates, debt service costs are trending up to rival late-1980 levels. This, coupled with the increasing use of credit instruments like IOs and HELOCs, introduces an entirely new element of risk that has yet to be tested.

The good news is that HELOCs offer a cheaper alternative to borrowing than other debt instruments, such as the more punitive interest rates of credit card debt. The data do show that there has been reduced appetite for other revolving debt in favour of HELOCs. Even though interest rates on HELOCs are usually variable and would rise as the Fed continues to raise rates, the debt service costs would likely be much lower than would be the case with other revolving debt. And, just to drive the point home, we don't believe the Fed will need to be as restrictive with monetary policy in the current housing boom cycle relative to past experiences.

Nevertheless, rising interest rates will increasingly pinch consumer wallets and refinancing activity will surely moderate – a trend that is already underway. With that, the wealth effect on consumption growth will wane and eventually turn negative for the more interest-sensitive components like cashed-out equity. We figure the magnitude of the resulting negative wealth effect on real spending growth will lie somewhere between our best-case and corrective-case scenarios, meaning that the U.S. consumer will not be the driving force behind the economy in 2006. Instead, growth in real expenditures is more likely to trend between 2-2.8 per cent on an annualized quarterly basis, which marks the backdrop for a mid-cycle slowdown in the U.S. economy. (For a more complete discussion on the mid-cycle slowdown see TD Quarterly Economic Forecast, June 2005).

Beata Caranci, Economist
416-982-8067

Endnotes:

1 Bank Credit Analyst, "The U.S. Housing Boom: Mortgaging the Future", July 2005.

2 Belsky, Eric and Joel Prakken, NCRER, "Housing wealth effects: housing as a component of household wealth", November 2004.

3 A competing school of thought argues that the MPC on cashed-out equity is only 5 cents on the dollar, with the remaining 20 cents representing spending that would have otherwise occurred, but financed in some other way. See above NCRER publication.