U.S., World's Growing Household Debt

The New Face of Economic Downturns and Upturns?

Written in June/July 2004

U.S., World's Growing Consumer Debt

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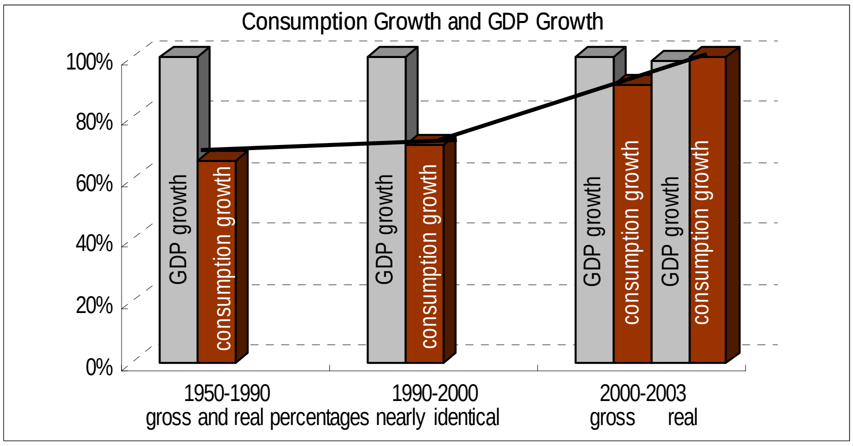
Has the U.S. Consumer Carried the Economy?

Many pundits have identified the U.S. consumer as the key dynamic in keeping the world economy afloat since the downturn in the U.S. economy 3 years ago. While this assertion may be open for debate, it is certainly true that personal consumption has been the impetus behind the U.S. economy in recent years.

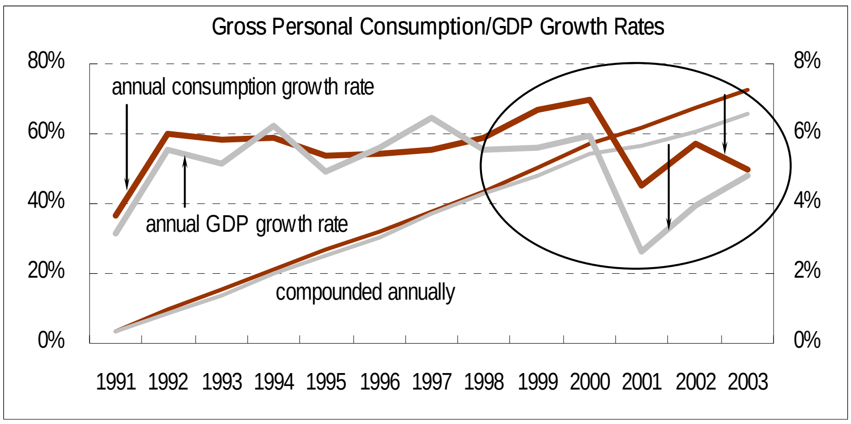
U.S. Household Consumption Growth Has Bucked Historical Trend

Personal (household) consumption ($7.7 trillion) currently makes up 71% of U.S. GDP and about 23% of the world economy. Between 1960 and 1980 household consumption held steady at 63% of GDP. In the 1980s this rose to 66% and was 66.5% in 1997 (it was 65% in 1950). However, in just the last 6 years it has risen by 4%. While there may be nothing inherently unusual in this, personal consumption as a percentage of GDP is at its highest level since WWII. What is unusual, and not the historical norm, is that personal consumption growth has grown considerably in comparison to GDP growth since the late 1990s and over the last 3 years in particular. Since 1950, there has been virtually no period in which personal consumption growth has been larger than GDP growth in actual monetary terms (except 1953-54, however, GDP fell in real terms) either from a real standpoint or gross (current dollar) standpoint. From 1950 to 1990 personal consumption growth averaged about 64% of GDP growth. From 1990 to 2000, it was about 72% the size of GDP growth. From the late 1990s this pattern began to deviate and over the last 3 years, in real terms, personal consumption growth has actually surpassed GDP growth (slightly) in size and in gross current dollar terms has nearly equalled it (91%).



Source: U.S. Bureau of Economic Analysis (BEA) National Economic Accounts (3/2004)

The actual compounded growth rates show, as might be expected, similar tendencies. While personal consumption growth rates outpaced GDP growth rates in both gross and real terms between 1950 and 1990, the difference was virtually imperceptible (less than 0.2%



Marubeni Research Institute based on BEA National Economic Accounts (two-tenths of one percent) per year both real and gross). This trend began to shift in the late 1990s, with the gap in the personal consumption growth rate and GDP growth rate widening beyond the usual historical levels.

The conclusion is that household consumption's contribution to GDP growth has had more of an impact in recent years vis-à-vis other such inputs as business investment (down), government expenditures (up) and exports (nullified by the trade deficit).

A feature of recent household consumption is that it has been bolstered by purchases of such big ticket items (durable goods) as autos, appliances and furniture. Durable purchases in turn have been bolstered by house purchases (residential investment), which although doesn't fall under the heading of household consumption, is still driven by consumers. Since the economic slowdown of 2000-2001, the sales of these big ticket items actually outpaced the sales of durables in the 3 years prior by an 8.5% to 7.7% annual margin. Herein lies the anomaly; this has been unprecedented in times of economic stagnation.

Consumption Pattern Has Deviated from Past Economic Downturns

In all economic downturns since 1950, where real GDP declined for at least one year, 1952-1954, 1956-1958, 1973-1975, 1979-1982 and 1990-1992, real personal consumption fell in at least one year (except for 1952-54 when it grew just 1.0%, 1957-58 when it grew only 0.7%, seven-tenths of one percent), during each period as did business investment. Durables purchases and residential investment both decreased in at least two years during these periods. In all cases, business investment declined for one year only and then rebounded the following year.

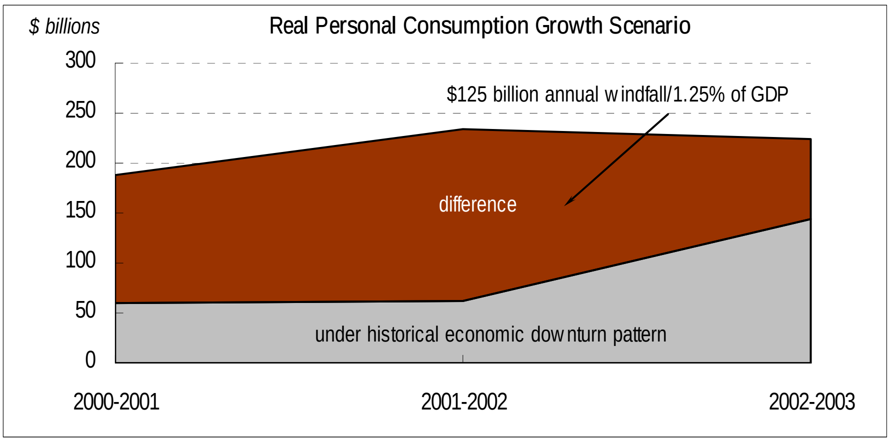
Comparison of Past Economic Downturns

	GDP	Personal Consumption	Durables	Residential Investment	Business Investment
1952-1954	***decreased*** *one year*	*was* ***nearly zero*** *one year*	***decreased*** *two years*	***decreased*** *two years*	***decreased one year***, *then rose*
1956-1958	***decreased*** *one year*	*was* ***nearly zero*** *one year*	***decreased*** *two years*	***decreased*** *two years*	***decreased one year***, *then rose*
1973-1975	***decreased*** *one year*	***decreased*** *one year*	***decreased*** *two years*	***decreased*** *two years*	***decreased one year***, *then rose*
1979-1982	***decreased*** *two years (not consecutively)*	***decreased*** *one year*	***decreased*** *two years*	***decreased*** *two years*	***decreased one year***, *then rose*
1990-1992	***decreased*** *one year*	***decreased*** *one year*	***decreased*** *two years*	***decreased*** *two years*	***decreased one year***, *then rose*
2000-2003	*was* ***nearly zero*** *one year*	*showed* ***healthy rise***	***rose***	***rose***	***decreased two years***, *flat until 3rd quarter*

Marubeni Research Institute based on BEA National Economic Accounts

A $120 Billion Consumption Windfall

In the 2000-2003 period business investment fell two straight years (-4.5% and -7% in real terms respectively, nominal about the same) and was nearly zero (minus in the 1st quarter) until the middle of 2003, ending up a relatively low plus 2.9% (2.8% gross) on the year. However, residential investment has averaged a healthy 4.4% (8% gross) the last 3 years, just a few percentage points less than in the previous 3 years, and as mentioned, durables sales have been running at 6% (3% nominal) growth a year since 2000. During these weak past economic periods personal consumption averaged about 0.9% real annual growth, while in the current phase household purchases have been about 2% higher, at 3% (4.8% gross). This represents a minimum windfall of about $125 billion a year, or 1.25% of real GDP (2.5% nominally), that otherwise would not have found itself into the economy had the current economy followed historical patterns.



Marubeni Research Institute based on BEA data (2002-2003 adjusted for increased capital investment in 2nd half of 2003)

Furthermore, this strong consumption took place in the face of rising unemployment (and from last year until recently very weak job growth) and personal income growth that is the lowest it has been in decades (2.7% real/4.5% nominal from 2000). Nor has population growth, at 1% per annum, been a large factor in this consumption spurt. It is clear, in more ways than one, the U.S. consumer has carried the U.S. economy since 2000 into the first quarter of 2004.

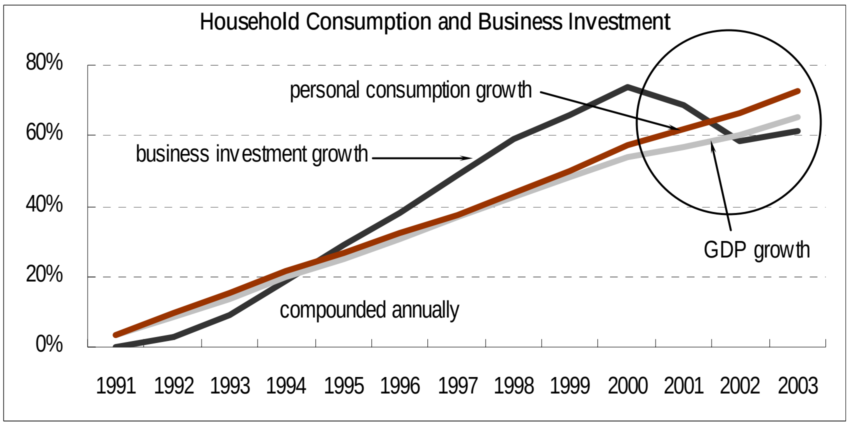
What Has Been Driving U.S. Household Consumption?

The recent strong contribution made to U.S. GDP by personal consumption begs the question of what has driven this consumption despite an economic slowdown. Consumption, or household expenditure, in and of itself is not the driving force of the economy, but rather it is a driven force. This does not mean that consumption does not impact the economy, as we all know it does, and sometimes in some very powerful ways. Consumers, by nature, want nothing more than to spend. However, they cannot go on shopping sprees unless they have the means. They essentially need income, and to create more demand or growth, rising income. Additional income and new income is basically generated by investment, usually in the form of business investment, or capital spending.

Business Investment Has Not Driven Consumption

Basically, in the long run, without business investment in new factories, equipment and technology (productivity) no new jobs will created nor productivity raised, which means no new or rising incomes. And, while on the surface capital spending makes up roughly 12% to 15% of GDP, its impact is far greater due to the "multiplier" effect. This means that when businesses make an investment, the money spent, for example on wages, will trickle through the economy expanding the impact of the initial investment. It is said that the multiplier is about 2, so the value of business investment to the economy usually doubles, and vice versa when it is reduced. Basically, corporate capital investment drives consumption. In fact, in past economic downturns, as we have mentioned, personal consumption has nearly universally recovered on the back of business investment

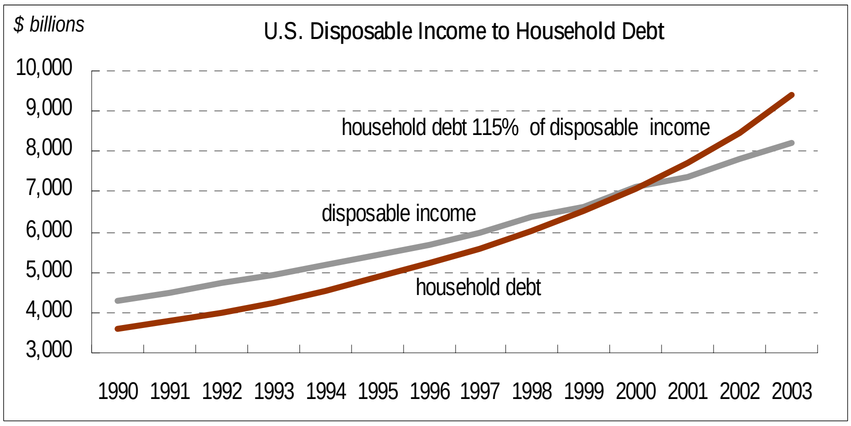
That's what makes this recent consumption binge so miraculous - it has taken place, until recently, in a complete drought of business spending. Certainly government spending can make up for some of this. For example, in 2002 and 2003 in total business spending had fallen by $82 billion, which, using the multiplier, might have impacted the economy by $164 billion. On the other hand, the government increased their spending by $250 billion in the same time frame, plus an additional $36 billion a year in tax rebates. Still, about 42% of the increase in government expenditures went to the military, which dilutes government spending effects on personal consumption. Furthermore, the trade deficit grew another $131 billion during this time, which made the increase of $706 billion ($350 billion a year) in spending by U.S. consumers in 2002 and 2003 even more remarkable.



Marubeni Research Institute based on BEA National Economic Accounts

Record Household Debt Has Driven Consumption (Or Has Consumption Driven Debt?)

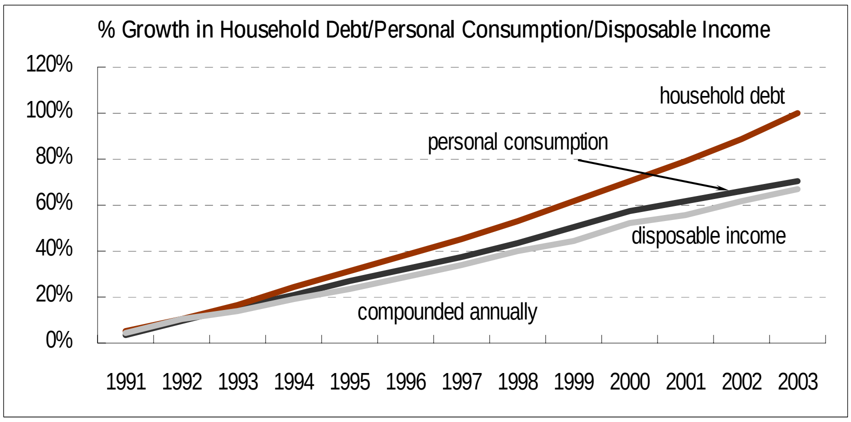
Which brings us to the crux of the matter; if business spending didn't spur U.S. household consumption, what did? Obviously there are two sides to every coin and the other side of U.S. personal consumption onslaught is heaps of household, or consumer debt, egged on by record low interest rates. Household debt in the U.S. (and as you will see in many other countries as well) has ballooned. In 1950 U.S. household debt to disposable income, basically after-tax income, was 34% (if disposable income was $10,000, households had $3,400 in outstanding debt). This figure grew to 58% by 1960 and levelled off eventually reaching 69% in 1980. As of the end of 2003 that ratio stood at 115% and rising. This means that the outstanding debt on a disposable income of $28,400 (the current U.S. per capita average) is now $32,660 (for every $10,000 of disposable income, households now have $11,500 in debt).



Source: BEA National Economic Accounts and FRB Flow of Funds

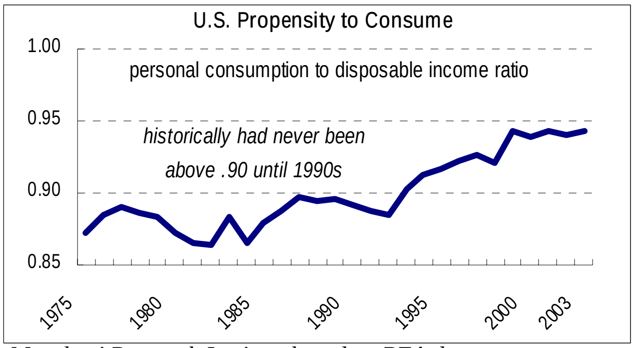
Pace of Household Debt and Personal Consumption Has Exceeded Growth of Disposable Income

It is not just that household debt now exceeds disposable income in the U.S., it is that the pace, or trajectory, has accelerated since 2000. The ratio of household debt to disposable income increased by 24% from 1950 to 1960, from 1993 to 2003 it rose by about 30%. However, there is a big difference in the two figures. From 1950 to 1960 the actual amount household debt increased every year never surpassed the amount disposable income increased. This began to gradually change by the 1990s. Household debt increased on average 7% per year from 1990 to 2000, while disposable income rose 5.2% a year. However, from 2000, debt growth of 10% per year was double income growth of 5.1%. During the last 3 years total household debt increased by about $2 trillion, about the size of the entire economy of Germany, while disposable income rose by $1.15 trillion. If this weren't enough, not only has the growth of household debt exceeded the growth of disposable income in the U.S., but since 1990 personal consumption growth has exceeded disposable income growth as well.



Propensity to Consume Takes Off

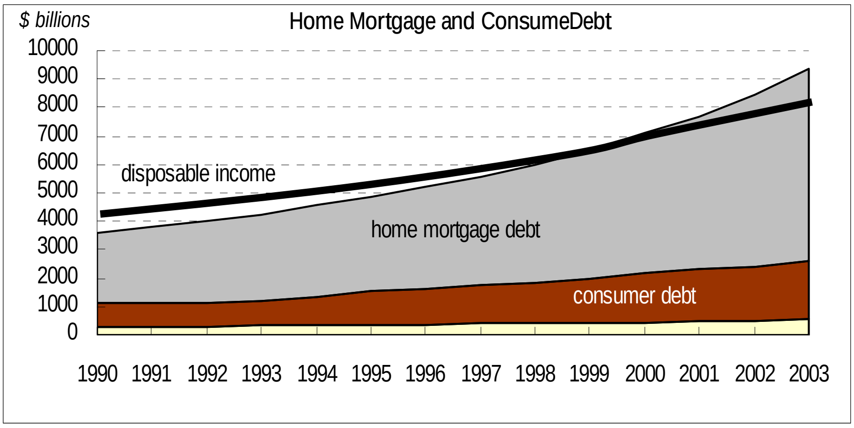
A valid question might be whether consumption, or the propensity to consume (the amount spent on consumption vis-à-vis one's net disposable income), is driving household debt or household debt is driving consumption? One thing is without question and that is the propensity to consume rose dramatically in the 1990s in comparison to historical standards. Between 1970 and 1990 household consumption average about 88% of net household disposable income (the propensity to consume is thus .88) and historically has never been above 90%. However, it has risen about 6% since 1990 and is currently a bit above 94%. While it might be argued that a new type of driven consumer is behind the increase in consumer debt, the fact is that using 94% of one's income for personal consumption doesn't leave a lot of room to pay back debt or save for the future.



Marubeni Research Institute based on BEA data

Home Mortgages Driving Household Debt

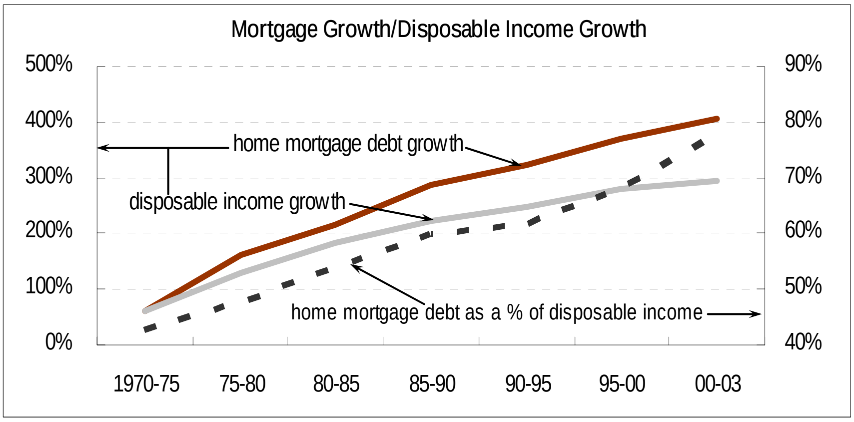
The increase in household debt over the years can be attributed mostly to the huge increase home-related mortgage debt and to a lesser extent pure consumer credit. Mortgage debt has increased from about 40% of disposable income in 1970 to 60% in 1990, to about 83% as of 2003. Consumer debt rose from about 17% of disposable income in 1960 to 25% in 2003, most of the difference coming from the latter half of the 1990s. Of the nearly $6 trillion rise in household debt between 1990 and 2003, home mortgages made up 74% and consumer debt 22% (4% other). During the last 3 years home mortgage debt has been growing at about a 12% clip (as mentioned a total of nearly $2 trillion, including 2003).



Source: FRB Flow of Funds and BEA National Economic Accounts

<u>Gap Between Mortgage Debt Growth and Disposable Income Growth Has Widened</u>

While these are high rates of debt growth, they are not historically the highest (the amounts are though). The problem is that the gap between mortgage debt growth and disposable income growth continues to widen. Just between 2000 and the end of 2003 mortgage debt growth climbed nearly 40%, while disposable income rose only 16%. Much of this mortgage increase can of course be attributed to the rise in house sales. And, while house ownership growth is not at its historical peak (it nearly is), the sheer numbers are (around 10 million since 1998) and ownership rate is (68.6%). Still, the fact that house buyers take out more loans than in the past, (mortgages on house sales have risen from around 82% as late as 1990 to 93% today) and the fact that mortgage amounts are growing larger (higher average house prices and lower down payments) are also contributing to the rise.



Marubeni Research Institute based on FRB and BEA data

Home Ownership in the U.S. *(million units/% of total)*

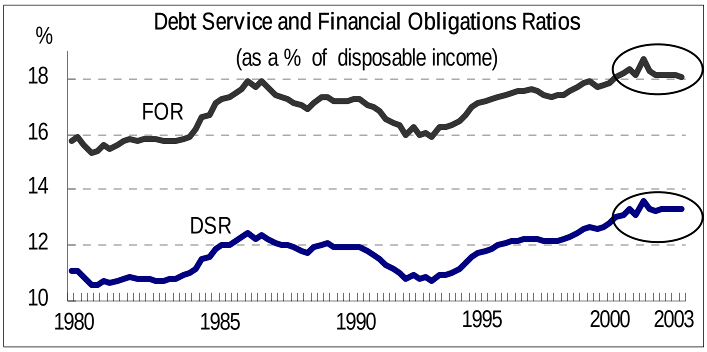
1970	1975	1980	1985	1990	1995	2000	2003
40.8	46.5	52.2	56.2	60.2	64.7	71.3	74.7
62.9%	64.4%	64.4%	63.9%	63.9%	64.7%	67.4%	68.1%

Source: U.S. Census Bureau Statistical Abstract of the U.S.

Though these figures show a worrisome trend among U.S. consumers, we must admit that these are average overall figures for the entire economy and as such may be not giving the truest picture of the actual mortgage debt and consumer debt situation. Neither do all income earners own homes, nor do all income earners that own residences have mortgages. Furthermore, there are large discrepancies in the earnings of the populace which could in fact skew the statistics a bit.

Debt-to-Service Ratios High

The most pressing question is whether this debt burden will affect future personal consumption. In looking at the U.S. debt service ratio (DSR - debt costs to disposable income) and financial obligations ratio (factoring in a wider range of related costs) we find that both are at historical highs which fits the larger pattern of rising household debt vis-à-vis disposable income, and thus deserves attention. However, they are not so high as to be of immediate pressing concern (at 13.2% and 18.4%respectively). A word of caution is in order here though. These ratios are at historical highs at a time when interest and mortgage rates, for all practical purposes, have been at historical lows. Furthermore, with the propensity to consume at more than 94% and the DSR at more than 13%, theoretically U.S. consumers are spending more than their incomes on consumption and debt, not a very sustainable position.



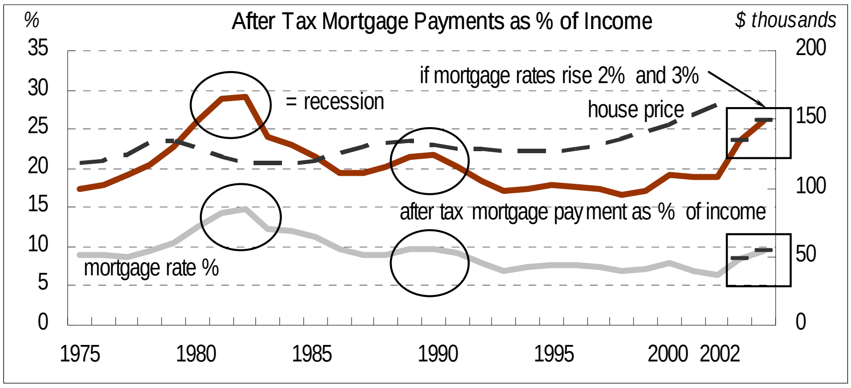
Source: FRB

Dangers to Future Consumption Lurking in the Mortgage Market

Statistics from the "State of the Nation's Housing 2003" put out by the Joint Center for Housing Studies at Harvard University are revealing. First, due to lower interest rates and higher housing values, the re-financing and cashing out of mortgages in 2002 alone resulted in the conversion of $180 billion to cash. Nearly $100 billion (part of the previously mentioned $125 billion windfall) of this went directly into the economy (and to pay off other consumer debt) and close to $80 billion was used to retire mortgages (and mortgage debt still grew by over 12%). With mortgage rates even lower in 2003 and 2004 this trend has continued right into 2004.

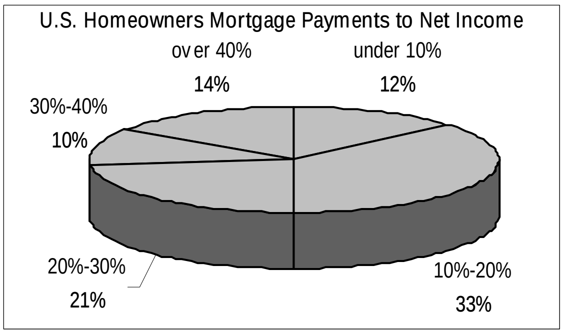
Mortgage Holders May Be Highly Sensitive to Interest Rate Hikes

According to this study current after tax monthly mortgage payments (before tax payments are higher) by homeowners in the U.S. are 18.9% of monthly income, just below the average of 20.3% over the last 30 years (renters' burdens are about 4% higher). This is still highest it has been in the last 10 years, except for 2000, even though mortgage rates have fallen (this percentage usually falls when mortgage rates fall). According to our calculations, if mortgage rates were to rise 1% the payment to income ratio would rise to above 21% (similar to those in the 1990-92 recession), and a 3% increase would make it 26% (similar to those in the 1980-82 recession). The 2 previous economic downturns were marked by an increase in mortgage rates followed by an increase in the monthly mortgage payment to income ratio. (*Note: The 20% line can be considered a kind of break even line in mortgage payments. It*



Marubeni Research Institute based on data from the BEA, FRB and Joint Center for Housing Studies, Harvard University *represents a fundamental point at which lenders feel relatively safe in lending to borrowers.)* Obviously the lowering of interest rates has spurred consumption since the economic downturn in 2000. The reverse side of this is the large amount of borrowing that has fueled consumption, which could make the economy more susceptible to a rise in interest rates than in previous periods. (From 1979 to 1981 mortgage rates rose nearly 4% and from 1988 to 1990 nearly 2%.)

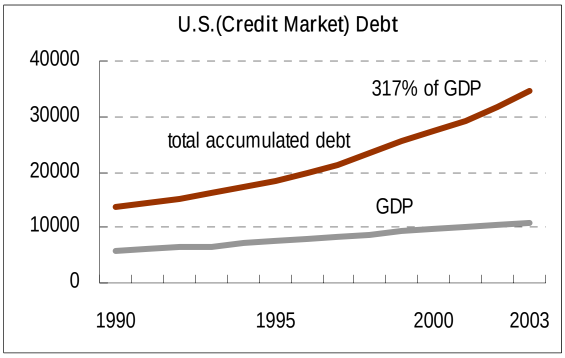
It also must be noted that the 18.9% rate is an average. In 2001 (the ratio was also 18.9%), according to the U.S. Census Bureau, about 14% of homeowners were paying at least 40% of their disposable income toward home loans (the Harvard study said this figure rose in 2002 with 10% paying more than 50% of their incomes toward mortgages). 24% were paying 30% or more and 45% were paying 20% or more. Furthermore, the Harvard study, much of which is based on U.S. Census Bureau figures, has found that 24% of homeowners have either moderate or severe cost burdens. And while it is encouraging that a high percentage of U.S. home owners have fixed interest rates, around 80%(but falling) according to the Mortgage Bankers Association, we estimate that a 2% rise in mortgage rates would increase by 10% the number of homeowners with cost burdens. It is certain that a mortgage rate rise will have a strong effect on consumption in the economy. Not only would a rise in interest rates reduce the number of house buyers, meaning the consumption of durables, it would eliminate much of the windfall going into the economy from refinancing and cash outs. Furthermore, existing households, given other forms of debt subject to adjustable interest rates such as credit cards and home equity credit lines, would tighten their usual consumption as well, (a triple whammy).



Source: U.S. Census Bureau

U.S. Baby-Boomers, Credit Culture Have Bolstered U.S. Consumption

The overwhelming evidence is that the U.S. consumer, enticed by lower interest rates and driven by household debt, particularly home mortgages, including refinancing, and to a lesser extent consumer credit, has been the locomotive pulling the U.S. economy along since 2000 right into 2004. Further proof can be found in the fact that household saving rates fell to an all time low of 2.3% in 2001 before rebounding slightly in 2002, but falling again in 2003. Interestingly, consumers between the ages of 35 and 54, basically the baby boomers, make up more than half of all consumption expenditures, but less than 40% of all U.S. households, so it might be said that the baby boomers are currently driving the U.S. economy. Still, given the levels of debt, i.e. credit, there seems to be something besides just interest rates behind the growing borrowing. The baby boomer generation came to adulthood along with the proliferation of the credit card. It seems that this part of a credit-consumption culture that has developed in the U.S. over the last



Sources: FRB Flow of Funds/BEA

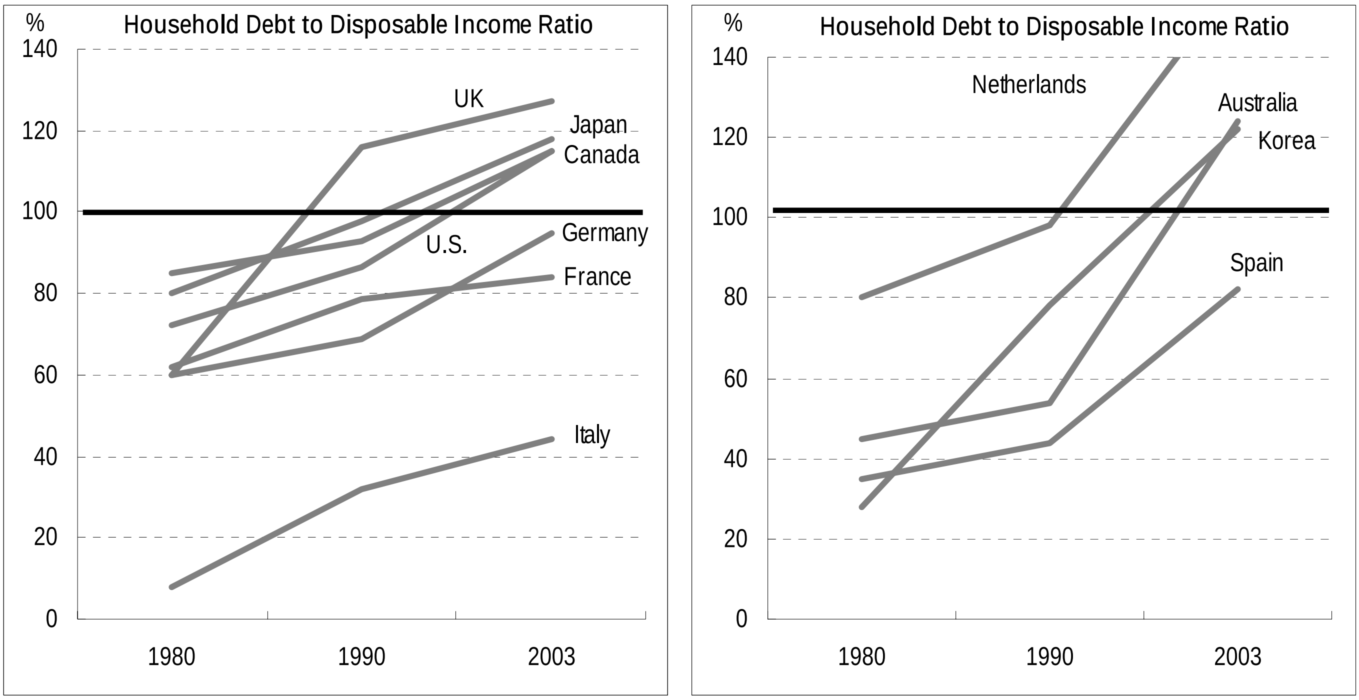
40 years or so that not only extends to consumers but has penetrated business and government as well, with total accumulated credit (debt) in the U.S. having reached 317% of GDP.

U.S. Consumers Not Alone in Current Consumption/Debt Habits

For all the attention focused on U.S. consumption habits, U.S. consumers are by no means alone in their appetite for credit and penchant for purchases. For the most part, their counterparts in the industrialized world are moving in unison with them. In fact, a number of countries have higher household debt to disposable income ratios than the U.S., with the trend fundamentally still headed upward.

In the other G-7 countries (G-6), combined GDP was roughly 12% larger than U.S. GDP in 2003 (only 4% larger in 2002, due to a stronger dollar) and personal consumption was 95% of the U.S. total (59% of GDP to 70% of GDP). Still, at around $7.4 trillion, or 21% of the world's GDP (U.S. is 22%) it is a significant contribution to the world economy and nearly equal that of the U.S.

Household Debt to Disposable Income High (or higher) in Other Major Economies



Sources (Household Debt):

FRB Flow of Funds, Deutsche Bundesbank Monthly Reports, Banque de France Bulletin Digest and Time Series Statistics, Bank of Italy Italian Financial Accounts, Bank of England Monetary and Financial Statistics, Bank of Japan Statistics Deposit and Loan Markets, Bank of Canada Weekly Financial Statistics, Reserve Bank of Australia Bulletin (Statistical Tables), Bank of Korea Quarterly Bulletin, Bank of Spain - Financial Accounts of the Spanish Economy , OECD Economic Outlook, European Credit Research Institute (ECRI)

Sources (Disposable Income, Personal Consumption, GDP, etc.):

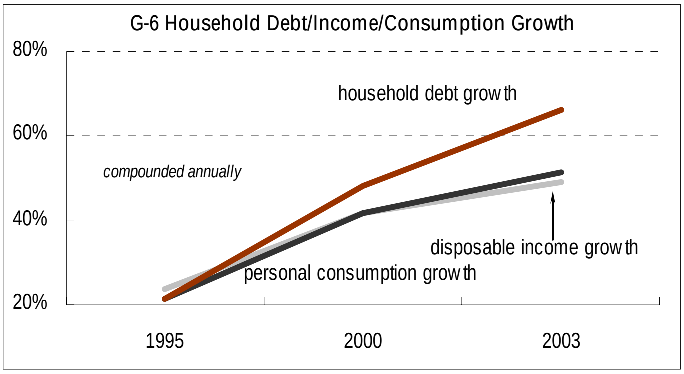
BEA, Federal Statistical Office Germany - National Accounts, French National Institute for Statistics and Economic Studies (INSEE) - Annual National Accounts and National Accounts: Report on the Nation (French), Italian National Institute of Statistic (Istat) - National Economic Accounts (Italian), UK Office for National Statistics - National Accounts, Government of Japan Cabinet Office - Annual Report on National Accounts (2003), Statistics Canada - National Income and Expenditure Accounts, Statistical Office of the European Communities (Eurostat) - National Accounts), Australian Bureau of Statistics National Accounts, Korea National Statistics Office (Statistical Data Base), Bank of Spain - Financial Accounts of the Spanish Economy, Eurostat - National Accounts, IMF World Economic Outlook

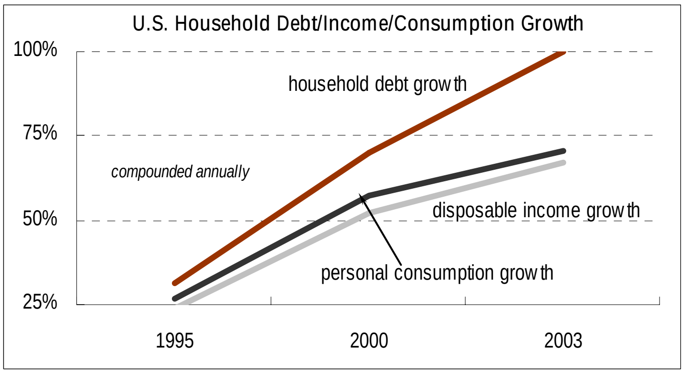
* *German and Japan household debt has been adjusted downward to reflect the high percentage of household owned businesses. Japan's household debt could be higher as consumer credit figures were based strictly on banks' data.*

While household consumption is generally below U.S. levels in the other G-7 countries in relation to GDP, most of the other G-7 countries are not shy toward credit. Japan and the UK both have higher debt to income ratios than the U.S., while Canada is par with the U.S level of 115%.* Germany's household debt is now approaching 100% (above 90%) of disposable income.* France has had stable household debt in the 1990s of around 78% of income, but has seen it grow to about 84% since 2000, and Italy's, although still quite low at around 44%, is growing. The G-7 average is now almost right at 100%. Additionally, 4 other of the world's largest advanced industrialized economies in the world have very high levels of household debt. The Netherlands has household debt of about 160% of income, while Korea and Australia are both above 120%. Spain's debt is headed for 100%, having gone above 90% in 2003. (G-7 plus these economies make up 11 of the 15 largest economies in the world, the other 4 are China, India, Mexico and Brazil respectively). The household debt in these 11 economies, which make up about 73% of the world's GDP, exceeds their disposable income by an average of 8%.This is a rise of more than 25% since 1990.

Personal Consumption Growth Has Exceeded Disposable Income Growth in all G-7 Countries

In general, the overall trend of household debt, personal consumption and household disposable income in many advanced economies is eerily similar to that of the U.S. In the G-6 countries, on average, household debt growth is not only outpacing disposable income growth (66% to 49% since 1990), it has exceeded personal consumption growth (51% to 49%) as well. From 1990 to 1995, in no G-6 country, except Japan, was household consumption growth greater than disposable income growth (Japan's was nearly equal). However, between 1995 and 2000 this trend completely reversed itself, with personal consumption growth leading disposable income growth in all the G-6 countries as well as in many non-G-6 EU countries as well.

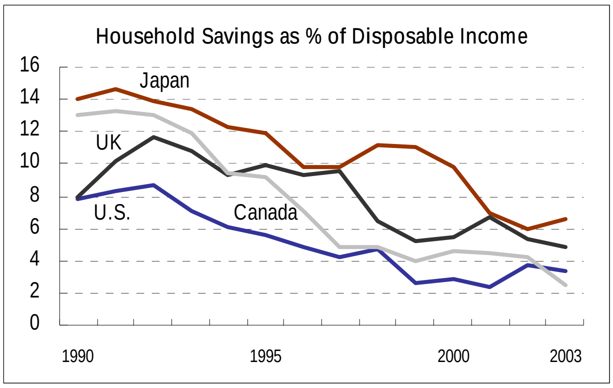


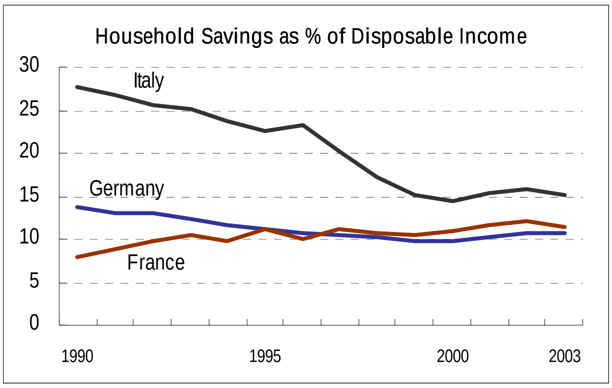


Marubeni Research Institute based on National data of each country, Eurostat and OECD Economic Outlook

Certainly conditions and trends vary from country to country, with some countries showing different economic behavior than others. Japan for example has had declining disposable income since 1998, however personal consumption, while falling minutely between 1998 and 2000, has been positive despite falling incomes. Furthermore, household debt growth in Japan has fallen to zero with debt actually falling between 2001 and 2002 (household debt growth rose again in 2003). Despite the image as copious savers and grudging consumers, Japanese consumers have been more than holding the fort by maintaining consumption while either trying to pay off household debt or not taking any more on. The result has been precipitous decline in household savings rates from nearly 12% in 1995 to 5.8% today.

Household Savings Have Fallen Almost Across the Board



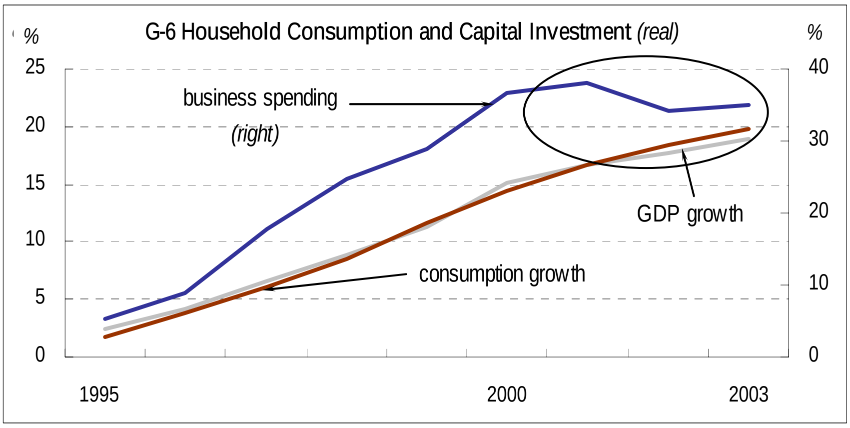


Source: OECD Economic Outlook

In the other G-7 countries both disposable income and household debt continued to rise throughout the 1990s, although disposable income growth has slowed somewhat in most countries. And while only in France has disposable income growth kept pace with consumption in recent years, household debt growth has far exceeded disposable income growth in all countries, including Japan, since 1995 (Germany's household debt to income ratio actually fell slightly in 2001, but rose again in 2002 and 2003). As a result, in all G-7 countries except France personal savings have fallen since 1995, on average 5%.

Business Investment Has Not Driven Consumption in G-6 Countries Either

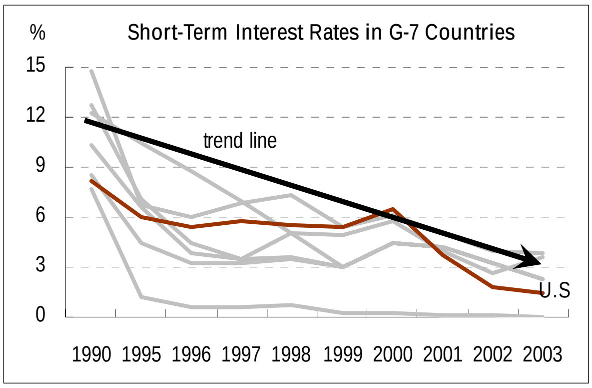
In addition, along the same lines of the U.S., personal consumption in the G-6 countries continued to rise despite lower and even negative capital investment by business. In the last 3 years (to the end of 2003), despite negative average business investment, personal consumption grew 5.3% (consumption was especially high in the UK). Furthermore, as in the U.S., personal consumption growth has been higher than GDP growth since 1995 in these countries in both real and nominal terms.

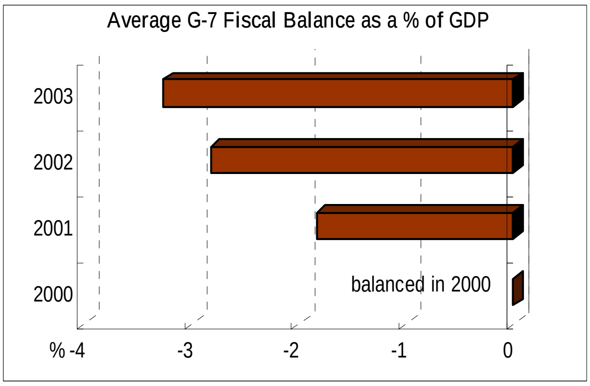


Marubeni Research Institute based on National data of each country and OECD Economic Outlook

Interest Rates Down/Government Spending Up in Unison

Following traditional government spending patterns in economic downturns, government expenditures have also been up in all the other G-7 countries since the economic downturn of 2000 - 2001. And while the U.S. has led the other G-7 countries in government spending growth over the last 3 years, in all countries, except Germany and Japan, government expenditure growth over the last 3 years far exceeded that of the previous 5 years (Germany's was almost the same, Japan's slightly increased). As a result, all the G-7 countries, with the exception of Canada, have run negative fiscal budget balances for the past 3 years. This combined with such monetary policy as the universal lowering of interest rates, i.e. mortgage and consumer loan rates, i.e. household debt, has helped drive consumption in all countries.





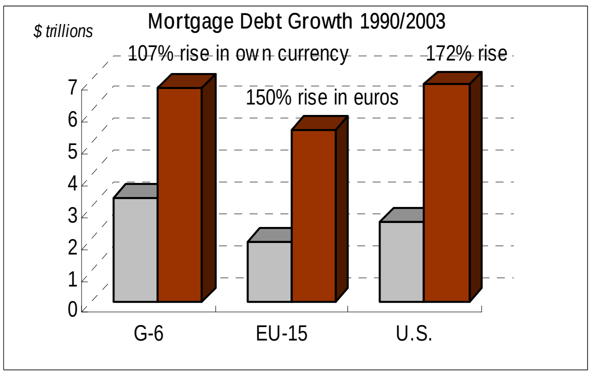
Source: OECD Economic Outlook

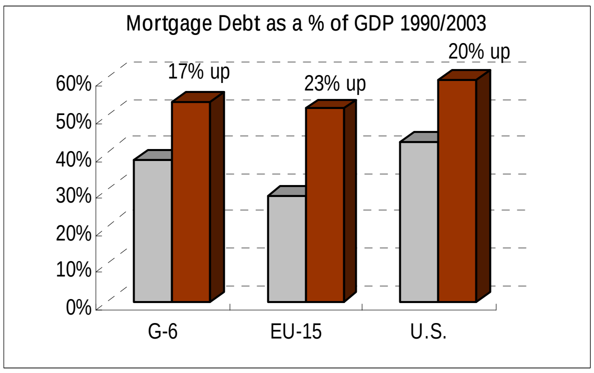
G-6/EU Household Debt Has Also Been riven by Mortgages

However, as in the U.S., the impact of household debt has had a greater effect on personal consumption than government spending. And, also like the U.S., household debt has been, and is being, driven by mortgage debt. According to the European Credit Research Institute mortgage debt represents about 67% of disposable income in the G-6 countries however, in our own survey of each G-6 country's national accounts we estimate this figure to be around 74%, a little higher than the U.S. figure in 2003 of 72%. This figure though, varies among countries, though the trend is upward.

EU Mortgage Debt Growth Has Matched U.S.

Mortgage debt growth between 1990 and 2003 doubled in the G-6 countries, whereas it rose about 2.7 times in the U.S. However, on a broader scale, in the EU (EU-15) mortgage growth rates have grown 2.5 times since 1990, from about 1.8 trillion euros ($1.9 trillion) to 4.2 trillion euros in 2002, about (4.5 trillion euros) at the end of 2002, and by our own estimates 4.5 trillion euros ($5.4 trillion) today, which would put EU mortgage debt growth since 1990 above U.S. mortgage growth in dollar terms. As a percent of GDP the G-6 gained 17%, the U.S. 20%, while the EU's mortgage debt to GDP ratio rose 23% between 1990 and 2003. In fact, EU mortgage debt as a percent of U.S. mortgage debt has risen 3 percentage points since 1990 to reach 79% of the U.S. mortgage debt total. In general, low interest rates are fueling mortgage debt growth, and by proxy household debt, not only in the U.S., but throughout most of the industrialized world.

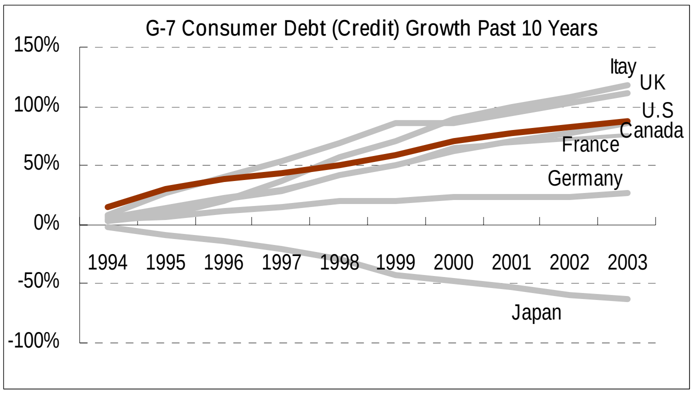


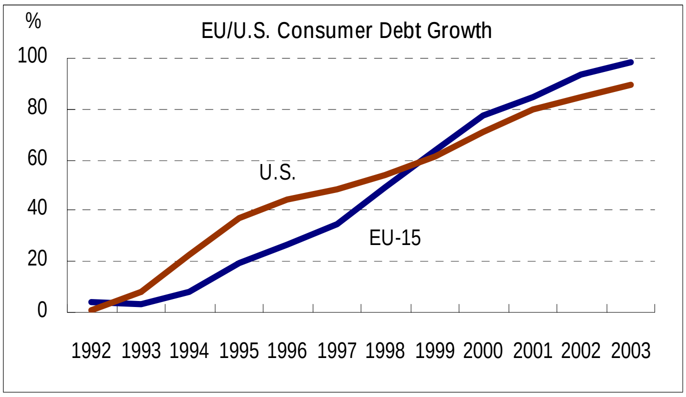


Sources: Central Banks of U.S/G6 countries, European Mortgage Federation and ECRI

Consumer (Credit) Debt Growth in Most Countries Now Outpaces U.S.

Comparing the pattern of consumer credit growth (non-mortgage credit, basically credit for consumer purchases) in other G-7 countries and also the former EU-15 with the U.S. we find a similar trend. Since the mid-1990s U.S. consumer debt growth has actually been lower than other G-7 countries, except for Germany and Japan (laggards). Even since 2000 Italy, the U.K., Canada and France have all outpaced the U.S. in their appetite for consumer credit. And although U.S. consumer debt growth has outpaced the average for of the G-6 countries over the last decade, mostly because of low and negative consumer credit growth in Germany and Japan, consumer credit growth in the EU as a whole has outstripped that of the U.S.





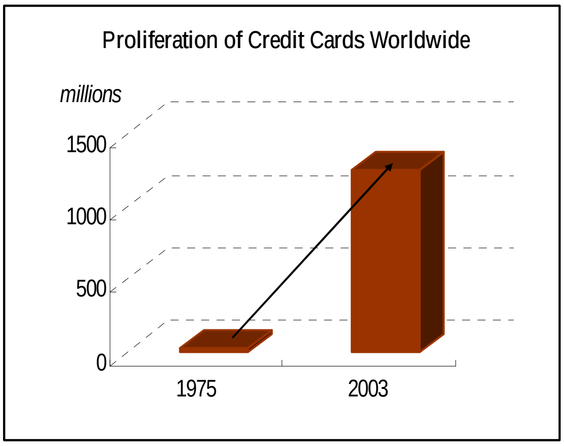
Marubeni Research Institute based on data from the Central Banks of U.S/G6 countries and ECRI

The "Democratization of Credit: Consumer Credit Culture Goes Global

The rise in consumer credit in the EU is symptomatic of a burgeoning worldwide credit culture, exemplified in the recent bursting of the huge credit bubble in South Korea and the government bailout of Korea's largest credit card company LG Card. This phenomenon is an outgrowth of the credit card finance market in the U.S., which developed from the late 1960s and early 1970s, gaining steam with consumers in the 1980s and firmly entrenching itself in the U.S. social fabric in the 1990s. There are currently 1.3 billion credit, debit and store cards in circulation in the U.S., more than 500 million of them credit cards. It is no coincidence that the household debt to disposable income ratio has nearly doubled in the last 20 years in the U.S. In fact, even corporate borrowing exceeded household borrowing until 1990, from which point household debt soared passed it.

<u>Over 1 Billion Credit Cards Worldwide and Growing</u>

That consumer credit debt growth in the EU and many other countries has begun to outstrip that of the U.S. is not unusual given that they came to the credit card game later than the U.S. For example, the growth of consumer credit in the EU really started after deregulation of the credit market in the 1980s, so it has really only been in the 1990s that consumer credit has begun to go mainstream in countries other than the U.S. Already there are about 500 million credit and debit cards in the EU (a population 30% larger than the U.S.) now, 100 million of them credit cards. Japan has over 100 million credit cards and some 250 million credit and



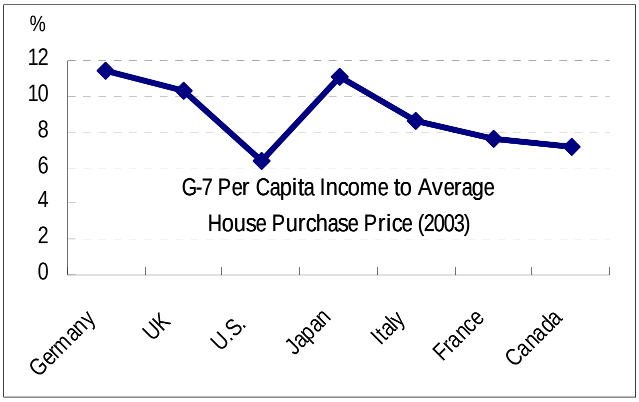
Sources: CardTrak, Mintel International Group Ltd., European Card Review debit cards. Even in a still very immature financial market as China consumer credit debt has grown 4.5 times since 2000 to $190 billion. The fact is there are currently well over 1 billion credit cards in the world and there is now an average of nearly 4 credit cards per working adult in the U.S.

Credit Mindset Weaves Way into Business, Government

What is taking place, through financial globalization and improved financial technology and know-how, is nothing less than the "democratization" of credit, both consumer and mortgage, which has both made credit more accessible to the masses and allowed for higher levels of theoretically "safe" borrowing. While the level of safe borrowing is an entirely different question, the mindset that has developed from the democratization of consumer credit, or what now might be called the "propensity to borrow", may have weaved itself into the fabric of business and governments alike. In all of the 10 largest industrialized countries (OECD) with the exception of Italy, the combination of total non-financial business and consumer debt now exceeds GDP (Italy's is nearly equal to its GDP, but accumulated government debt exceeds GDP). For instance, in the U.S. the figure was 150% of GDP (1.5 times) at the end of 2003 (Japan's was even higher). This figure was 86% of GDP in 1963 and 100% in 1983. In the last 20 years, which coincides with the rise of the credit culture in the U.S., it grew by 50% of GDP.

Personal Consumption and House Prices

Household debt has more a less been the sole force in personal consumption not only in the U.S. economy, but in much of the advanced industrialized world over the last 3 years, although the extent varies from country to country. One of the reasons U.S. consumption as a percentage of GDP is generally higher than that of the rest of the world, besides higher consumer credit debt (due to a more mature credit culture despite rising credit debt growth in the rest of the world), is the fact that average house price to income ratio in the U.S. is lower than in other advanced countries (more cash for personal consumption). Using the figures for new house prices we found that per capita income to the average house purchase price (including loan) in the U.S. is the lowest among the G-7 countries despite having risen more than 15% since 2002. In fact the worldwide downward interest rate trends of the past few years have led to large rises in housing prices throughout most of the industrialized world. For example, since 1997 home prices in Spain rose 121%, in the UK 116%, Australia 113% and the Netherlands 75%. Even France and Italy home price growth have outstripped the U.S. at 59% and 54% to 53% for the U.S. This has led to recent worries of a house price bubble in the developed world where housing



	Average House Price	Per Capita Income	Ratio	Ownership Rates
Germany	$299,000	$26,194	11.41	44.%
UK	$260,000	$25,245	10.30	69.%
U.S.	$230,000	$35,764	6.43	69.%
Japan	$358,000	$32,348	11.07	62.%
Italy	$193,000	$22,424	8.61	67.%
France	$195,000	$25,392	7.68	57.%
Canada	$176,000	$24,336	7.23	68.%

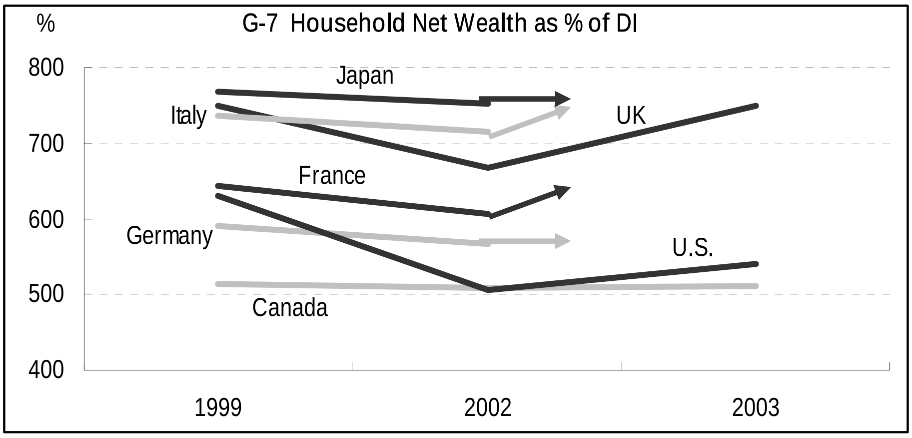
Marubeni Research Institute based on data from the European Mortgage Federation, Joint Center for Housing Studies at Harvard University, Canadian Real Estate Association and Royal Lepage, Japan's Ministry of Land, Infrastructure and Transport prices have outpaced inflation, except in Germany and Japan. Housing bubble or not, with housing mortgages making up such a significant portion of household debt their influence on personal consumption, especially in the U.S., looms large.

Lower Down-Payments, Higher Personal Consumption

Interestingly, the G-7 countries with the lowest household debt to disposable income ratios also have the highest savings rates as well as lower household ownership rates. The cause of this seems to be very high down payment obligations on home purchases. Down-payments on homes in Italy typically average about 50% of the purchase price (Italy's home ownership is high because homes are cheap relative to income) and in France and Germany about 35%. (Japan also has large down-payments on homes at about 40%, but asset deflation and falling incomes have kept household debt high.) In the U.S. "loan to value" (down payment) figures have averaged a little above 20%. However, a worrying trend taking place recently, according to Newsweek and the Economist, among others, has been the recent dangerous trend toward relaxed lending standards, including mortgages with no down payment especially in the U.S., but not confined to the U.S. alone (remember Korea,).

Household Wealth Rises

OECD household wealth and indebtedness statistics show that net household wealth in all G-7 countries fell between 1999 and 2002 as households liabilities rose (i.e. debt), mostly in the form of mortgages, faster than incomes. However, in 2003 household net wealth rose, mostly likely, on the back of rapidly appreciating housing values from mid-2002 in most of these countries. In the U.S. case, this means that households were refinancing off lower interest rates prior to 2004, but if mortgage rates rise would have to sell the house to gain a return on their asset.



Sources: OECD Economic Outlook, Central Bank data

This naturally leads us to the interest rate question and the nature of the current economic recovery, especially in the U.S., remembering that while higher housing values may be good for some monthly mortgages are not paid off with housing equity, they are paid off with monthly income. Furthermore, housing prices that become too high would kill the market for new home buyers, taking a chunk of personal consumption with them.

Like Recent Economic Downturn, Current U.S. Recovery Also Historically Atypical *

The world economy has grown at annual rate of a little more than 5% over the past year and the U.S. economy about 4.9% (nominal). However, just as the recent U.S. economic downturn was not historically typical, the current economic recovery is not of the standard variety either.

Job Growth Anemic

While the current U.S. recovery began in early 2002 (possibly the end of 2001), it only really started to pick up any steam in the 3rd quarter of 2003, about the same time business investment in the U.S. also began to see signs of life again. At the 2 year mark of a more typical recovery, job growth is usually quite high. For example, in the two years after the 1980-1982 downturn non-farm employment rose by 4.8 million, and by 5.5 million after the 1990-1992 recession. At the 2-year mark of the recent economic upturn, non-farm employment had actually fallen. And, while non-farm employment rose by 1.5 million in the last 10 months (from August of last year to June of 2004) the employment to population ratio is still the same it was in June of 2003 (62.3%, 5% lower than in 2001) and unemployment has basically remained unchanged at 5.6% since the end of 2003. The number of employed is still lower than the 2001 peak. If not still a jobless recovery, it is certainly anemic on the job front.

Business Spending Up, But Residential Investment Still Looms Large

Business spending showed a similar trend. From 1982-1984 business spending grew 15% (7.45% annually) and from 1992 to 1994, by nearly 20% (10% a year). In the two year period from the end of 2001, spending was only up 5% (2.5% on an annualized basis). In 2004 business spending has been running at 7.2% annual clip, however, residential investment (housing) growth has consistently outpaced business investment in actual monetary terms (residential investment is moving at 16% annualized rate.) In the previous two recoveries business spending was more than double residential investment by the end of the second year with an even wider gap in the third year.

Income Growth Stagnant, Disposable Income Bolstered by Tax Cuts

For the 1972-1974 period personal income grew 19.9% (10% annually), wages and salaries 18.4% (9.2%) and disposable income 21% (10.5%). Between 1992 and 1994 personal income was up 9% (4.5% on an annual basis), wages and salaries 7.5% (3.75%) and disposable income 8.7% (4.4%). For the two year period to the beginning of 2004 personal income was up 6.5% (3.75%) and wages and salaries 5.4% (2.7%). In real terms wages and salaries would have been a negative 1% for the current recovery and up about 8% in the other recoveries. Disposable income however grew about 10% (5%) between the beginning of 2002 and beginning of 2004. The discrepancy between recent wage and salary growth on the one hand and disposable income growth on the other is largely due to the Bush tax cuts from 2001 onwards. Income and wage and salary growth has picked up in the first half of this year though, although still not approaching personal income and wage and salary rises in past recoveries.

The data points to the fact that previous economic recoveries were led by business investment, while housing investment and tax cuts seem to still be playing an inordinately large role in the

* All statistics (current) from this point to the end of the paper are from the U.S. Bureau of Economic Analysis and the U.S. Bureau of Labor Statistics.

current recovery. Furthermore, household debt was not an issue in the previous recoveries (61% and 82% of disposable income), whereas household debt growth continued to lead disposable income growth by a 10% to 6% annualized margin in the first quarter of 2004. The question then is the sustainability of the current economic recovery as economic growth seems to still be based on rising household asset prices and household debt (low interest rates).

U.S. Fed and U.S. Household Debt - Other Side of Manageable is Worrisome

In March of this year, replying to concerns of growing U.S. household debt Alan Greenspan maintained that household debt was manageable, based on rising household wealth mostly in the form of rising house values and stock portfolios, and a rejoinder that sophisticated financial markets now allow consumers to take on ever higher levels of debt. However, just the simple fact the Fed felt the household debt issue was significant enough to be addressed means that there is an underlying tone of worry. No Fed governor in their right mind, given a jobless recovery, would say the growing household debt was worrisome for fear of impacting consumer psychology and bringing a halt to personal consumption.

<u>Unchartered Territory; How Much Household Debt?</u>

Given the dynamics of current household debt, at about 114% of disposable income and growing, there is every indication it has entered unchartered territory. While, for example, there is a formula for potential GDP, there is still no formula for the perfect level of household debt. How much debt can households safely take on, what is the ideal propensity to consume? We don't know. What we do know is that while households can certainly assume more debt than was thought possible 20 years ago, household debt growth levels that exceed GDP growth and disposable income growth are not sustainable. What is needed is a capital investment led recovery where productivity rises translate into both healthy job growth and a significant boost to incomes and not just in the form of dividends to shareholders.

Virtuous Cycle or Vicious Cycle: Real Economic Growth or Low Interest/Debt Deflation Trap

Healthier economic data (job, wage and business spending) during the first period of 2004 and rising concerns over inflation saw the Fed raise the interest rate one quarter point to 1.25. However, given that about half the rise in the consumer (urban) price index can be attributed to energy commodities (oil) and transportation (gasoline) there is no across the board inflation. In fact, there still may be underlying "good deflation" lurking from technological gains (productivity) and the inclusion of China and India in the global economy bringing down the price of products (traded) in the U.S. (This pushes up real incomes.) What this points to is a rise in interest rates aimed at cooling off U.S. house buying without denting personal consumption too much. The Fed is obviously aware of the sensitivity in the relationship between household debt and personal consumption by having taken what some call the "gradualist" approach to raising interest rates. Alan Greenspan is gambling that business spending and job and wage growth will kick in, providing real economic growth and allowing them to raise real interest rates in the longer term.

The problem is, of course, one of timing and one of whether the interest rates were pushed down too far in the first place. Very low interest rates and the ensuing recovery created profits for corporations and allowed companies to reduce debt. However, it also pushed up household debt (and government debt) to record levels making consumers vulnerable to higher interest rates. Furthermore, with extremely cheap money companies tend to employ capital rather than labor and it inevitably pushes both business and individuals to invest in riskier assets (property) with higher returns. If in reality the current recovery is being fueled by asset prices (housing) and debt (household), then debt deflation rather than inflation might be the real enemy. Will it be a question of a vicious cycle of debt deflation and permanently low interest rates ala Japan or will it be a virtuous circle of mild inflation or good deflation and real economic growth led by business spending? There are already signs of flagging personal consumption, possibly the result of debt fatigue. If this kicks in too soon (timing) certainly debt deflation could set in. The answer though may fall somewhere in between; milder recessions but weaker recoveries. This may be the new face of economic downturns and upturns.

Balancing Productivity Gains Key

The lesson for the U.S. and the industrialized world is that with lower national birth rates and the spectre of declining populations (the U.S. may be an exception to this trend), growth must come in the form of new technology, innovation and the productivity gains that ensue, which can only come from increased investment by business, not by increased volumes of easy consumer credit. However, without converting this productivity into higher real incomes for workers (especially considering current household debt levels), not just dividends to shareholders (unless all workers are shareholders), economic growth cannot be sustained.

In 1913 Henry Ford, founder of the modern automobile industry, when asked by a shocked industrial world why he would more than double the salary (wages from $2.34 an hour to around $5.00) of his employees (on the back of large profits), replied to the effect that someone was going to have to buy his automobiles. Henry Ford not only returned part of the profits to his workers in the form of wage increases, investment in technology/innovation in the form of the assembly line also reduced the costs, i.e., the price of his automobiles (investment in assembly line innovation came first). This dual action spurred income rises and price reductions throughout the auto industry (and others as well) making automobiles more affordable to the "common man" and helped give rise to the "middle class" via a "mass market". The key here is in balancing productivity gains (or producing total factor productivity in the first place) between investment in new technology and know-how (further productivity gains and lower costs, or the deflation side) and investment in workers wages (increased consumption, or the inflation side).

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Note: The views and opinions contained in this article are those of the writer and not necessarily those of the Marubeni Research Institute

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