



ECONOMICS OF CONSUMER DEMAND

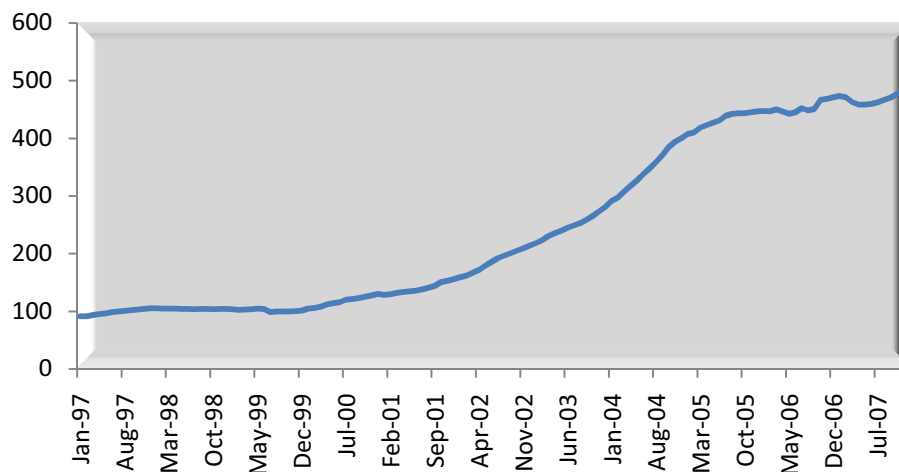
January 2008

www.eNumerys.com

Executive Summary

Although the housing demand seems to be stabilizing, the ripple effects in credit markets seem to be accelerating. Several large banks have revealed multi-billion dollar losses resulting from increasing mortgage defaults. This inevitably restricts capital flow throughout the economy both for businesses and individuals. Restrictions on capital flow tend to impact consumer spending, which is the life-blood of the US economy. Presidential election years have historically exhibited higher GDP growth and consumer spending, vehicle than in nonpresidential election years (“Is anything special about election years?”- Credit Suisse Economics Research, Jan 2008), but 2008 promises to be different. Home sales though improving are still expected to be in general decline through 2008 and early 2009. Gas prices are expected to increase around 7% and although core inflation seems to be under control, headline inflation driven by energy and food costs combined with a weakening growth has the economy flirting with stagflation. After a period of somewhat overextended spending frenzy fueled partially by the \$500 Billion in Home Equity withdrawal through the housing boom years, it is inevitable for consumers to retrace a bit into conservative territory. As House Price Appreciation flattens out, so will the ability of households to tap into this source of funding.

Revolving Home Equity (Federal Reserve- Bill. \$)



The housing sector boom contributed almost 1% per year to GDP growth between late 2004 and early 2006 through direct and indirect channels (2 out of 5 jobs created were housing related). Low interest rates since the past recession had a dual impact on housing- in addition to spurring abnormally high amount of Home-Equity withdrawal; they also caused potential purchase acceleration, with more and more people accelerating their home purchase decision to take advantage of low interest rates. This purchase acceleration in turn has the dual effect of causing a natural trough in the near-term future, since home purchases that would have been spread out over a longer time accelerate ahead and increasing the default rate, as consumers that may not have acquired the correct financial maturity take on the responsibility of home ownership. As banks finally tighten their purse strings, the economy will begin the painful process of healing itself. As

Households build their financial savings, housing and consumer demand should return to sustainable levels, but it took more than two years of to get here, so recovery will most probably extend beyond 2008.

Macroeconomic drivers do not impact all consumer sectors equally. Our analysis indicates that Food and beverage retail, Non-store retail, Food services (Restaurants), Furniture and home furnishings retail and Automotive sectors especially susceptible to a slowdown in house price appreciation. Employment declines are most likely to have a greater impact on Clothing and Clothing Accessories Retail, Sporting, Book & Music Retail and Automotive sectors. Businesses that are able to keep costs down and pass the savings on to the consumers and thus demonstrate value will be in a better position to ride this one out.

Key Macroeconomic Drivers of Consumer Demand

Employment

One sign of a weakening economy is the downside surprise in Private Sector jobs in December 2007. House Price Appreciation was a huge factor in the economic impetus in the past 3 to 4 years and the absence of this impetus is going to have a much broader impact and economists have been re-adjusting their economic forecasts to factor this in, but maybe not nearly enough. The late housing boom had created several jobs through its extended effect via construction and heightened consumption fueled by the 'Home Equity withdrawal effect'. As late as in October 2007, a CNBC article ("Economists Cut Forecasts for US Growth in 2008", October 10, 2007) mentioned that a consensus of economists saw the US economy expanding at 2.4% in 2008, which was a downwardly revised estimate from a previous consensus average of 2.6%. The results of the quarterly survey by Manpower reported in late December 2007 that on a seasonally adjusted basis, 17% of employers were planning to increase hiring in First Quarter of 2008, which is 2% lower than the year-ago period. According to an article from Monster.com, hiring activity peaks in the first two quarters and hiring activity slows down in the second half of the year. End of the first quarter job situation will be a strong indicator of how the rest of the year will look. The softening economy will not affect all sectors similarly and as employers re-evaluate their revenue outlooks based on Q1 performance; several industries could either continue expanding their workforce or freeze hiring, but the hiring companies will not offset the impact of companies that are either not hiring or outright downsizing because efficiencies from lean processes and outsourcing back-end functions.

Interest Rate

The one panacea to economic slowdown that the FOMC has been leveraging with skill during and since the past recession is the Federal Funds Rate, which essentially is the means by which the Fed enforce control over US money supply. In the primarily consumer-driven US economy, lowering the key rate which determines interest on credit and loans has the effect of spurring consumers to spend more and gives the economy a temporary shot of adrenaline. The Fed Rate also impacts the Prime Lending Rate that determines how much interest you will pay on your credit card. Lower credit card rates would mean higher retail sales, which is good for the economy. The impact of

changes in the Fed Rate takes up to a year to fully propagate through the economy, so its impact on the 2008 economy has already been played out in late 2007 and early 2008. The significant recent FOMC rate cuts will eventually drive the Prime Lending Rate down in 2008, which should bode well for consumption in general.

Inflation

The downside of a decreasing interest rate is that it tends to increase inflation as the lower incentive for saving drives spending upwards and increasing spending in turn drives prices upwards. Suddenly the word 'stagflation' is no longer something the economists like to throw around, but it could become reality. Stagflation is a situation where the GDP slows down but inflation increases- a paradox for the Feds because if they try to lower the interest rate to spur GDP, they run the risk of exacerbating the already high inflation and if they raise interest rates to counter inflation, they push the economy deeper into the recession.

Although the general slowdown in the economy and the downward pressure on employment suggests that consumption activity may slow down in 2008, the impact of interest rate cuts in 2007 and the impetus from government intervention like tax incentives and using different measures to offset the liquidity crunch in the credit markets driven by the ubiquitous 'sub-prime crisis', may avert any real threat of Stagflation.

Retail Gas Prices

Gas Price changes are an important macro-economic driver for several industry sectors:

- Gas price negatively impact retail sales as Households make fewer trips to groceries and stores
- Gas prices negatively impact profitability of industries that depend on road transport
- Gas prices may negatively impact new auto sales
- Gas prices may have a positive impact for demand on mass transportation

Crude Oil, which comprises about 40% of Retail Gasoline cost, is a big driver of the volatility of Gasoline prices, along with economic growth which increases automobile consumption and travel. The Department of Energy's Energy Information Administration (EIA) expects higher Gas prices in 2008 followed by a softening in 2009 due to increased non-OPEC production and planned additions to OPEC capacity. In 2008, Gas prices will probably peak at \$3.50 before settling down in the \$3.15 to \$3.25 range.

Of the four macroeconomic factors that influence consumer demand two are potentially neutral (Interest rates and Inflation), whereas two are aligned against (Employment and Gas Prices) - question is which ones have a stronger impact on consumption?

Econometrics of Consumer Demand

Each macroeconomic factor impacts different consumption sectors differently and how consumption will adjust to changes in each factor is a combined of function of the change in it and its impact across all sectors. These are their impacts across key consumer sectors (Impacts can be interpreted as elasticity, i.e. the % change in each consumption sector for a 1% change in the macroeconomic factor):

	Employment	Inflation	Prime Rate	Housing	Gas Price
Retail Sales ex-Auto					
Healthcare Retail	0.85	-0.60	-0.04	0.02	
Clothing/Clothing Accessories Retail	1.12	-0.24	-0.03	0.04	-0.02
Sporting, Book & Music	2.54	-2.24	-0.06	0.04	-0.03
General Merchandise	0.85	-0.60	-0.04	0.02	
Food and beverage stores	0.80	-0.69	-0.02	0.25*	
Non-store retail	0.67	-1.01	-0.03	0.03	0.02
Food services and drinking places	0.80	-0.69	-0.02	0.25*	
Furniture and home furnishings Retail	0.85	-0.62	-0.02	0.30	
Autos and Light Trucks Demand	2.99	-2.60	-0.11	0.54*	-0.14

*Housing impacts shown here are functions of New Home Sales, but those with an asterisk are driven by House Price Index.

The sectors most sensitive to Core Inflation changes are Sporting/Book/Music Sales and Non-Store Retail (includes online sales). Sectors most sensitive to Housing changes are Furniture/Home Furnishings, Food Service/Drinking Places and Food & Beverage Sales.

In 2008, Retail Sales can sustain the softness in the housing sector if the Employment situation holds. There has been some softness in Employment but not enough probably to drive a significant share of consumers away from the stores. The sectors especially sensitive to changes in employment are Clothing/Clothing Accessories and Sporting/Book/Music Sales and the least sensitive sector is Non-Store Retail.

Gas prices increases have a moderately negative impact on most sectors, except Non-store Retail, which benefits from Gas Price increases.

Overall Retail Sales will be determined by how factors impact the sectors with the greatest shares; General merchandise stores, Food and beverage stores, Food services and drinking places, Building mat. & garden equip. and supplies and Non-store retail.

As far as Auto Sales are concerned, they are extremely sensitive to all macroeconomic indicators and changes in any will have strong ramifications for this broad sector. The strongest relationship is between auto sales and Core Inflation, Employment and House price appreciation (the impact of House prices is possibly due to consumers funding auto down payments using Home Equity Loans). As expected auto sales have a far greater sensitivity to the Prime Rate (determines monthly payment on the auto loan) and Gas Prices, compared to Retail Sales.

Managing Consumer Demand in Economic Downtrends

Official Recession or not, a slowdown should not be underestimated as it is an indicator that economic capacity has grown at a faster rate than the growth in demand. It is a mechanism for the economy to let industry know this and take a breather from the rapid pace it has set over the past periods. Although long-run consumer demand is to a large extent dictated by macroeconomic drivers, marketing drivers like pricing promotions and marketing do play a key role in driving demand. Firms typically allocate marketing resources as an incentive to drive household consumption. Although most marketing tactics only impact demand in the short-term, there are several instances when marketing can alter long-run demand for products.

At over US \$ 1 Trillion, Marketing dollars are a tenth of the size of the overall US economy and this investment has the capacity to drive demand in the short-run. Marketing spend has the tendency to rise with the GDP and drop with it- typical marketing spend elasticity (excluding pricing) can range from 0.1 to 0.4. Weakness in macroeconomic drivers of sales especially calls for holding steady marketing investments if not ramping up, to offset this weakness. As Marketing is pressed for greater accountability, there will be a greater push during the economic slowdowns towards marketing channels with greater and more measurable ROI, but it is equally important to sustain brand equity by investing in channels and media that have longer term brand-building effects.

Understanding and anticipating periods of economic growth and downturn is critical to business strategy. It is especially important to conserve capital 'in anticipation of' rather than trying to cut costs as a 'reaction to' economic contraction.