



A Primer on Macroeconomic Indicators & the Consumer Economy

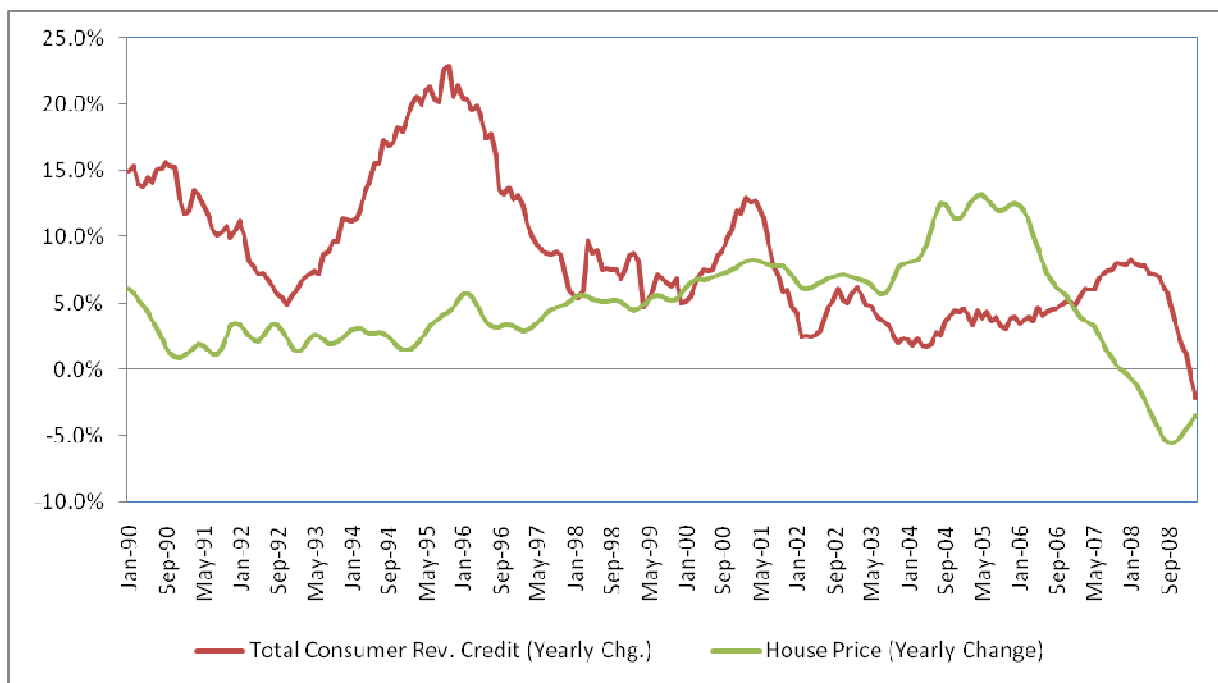
BY Joy V. Joseph

Financial news media reports a wide range of economic indicators on a regular basis and these indicators usually do not all indicate in the same direction leading to a lot of confusion for non-Financial audiences. This primer is designed to provide a quick review of some leading economic indicators and how they impact the broad as well as the consumer economy.

Housing: New & Existing Sales, Starts, Prices

Strength in the Housing Sector impacts the economy in several ways starting with jobs- 2 out of 5 jobs created during the housing boom years between 2004 and 2006 were housing related.

Increasing house prices also spurs consumption through Home Equity credit. Strong home price appreciation combined with low interest rates on revolving credit since the 2001 recession spurred a huge increase in Home Equity withdrawal. During the pre-2006 Housing boom years total Revolving Home Equity credit increased by \$500 Billion.





Other Housing related indicators are New Home Sales, Existing Home Sales and Housing Starts.

New Home Sales are measured by the Census Bureau with the signing of a sales contract or the acceptance of a deposit. (25% completed, 75% not yet started or under construction).

The National Association of Realtors (NAR) reports Existing Home Sales when the sales contract is closed (typically 30-60 day closing period). Based on the usual time it takes to obtain and close a mortgage, new home sales usually lead existing home sales regarding changes in the residential sales market by a month or two. This measure is the strongest of the three measures in indicating housing trends because Existing Home sales generally account for the bulk of the sales in the Housing sector.

Housing starts indicate advance demand in the Housing sector- a start is generally counted as the excavation of the foundation. Housing starts are also obviously an advance indicator of strength in the construction industry. Housing starts are also a leading indicator of demand for Consumer Durable Goods as new homes need to be equipped and furnished from scratch.

CPI (Inflation)

The Consumer Price Index is a monthly report issued by the Bureau of Labor Statistics and is a measure of Inflation. The report is available by different expenditure categories, by region and city size. Inflation indicates the change in overall prices of goods and services and is a key determinant of Federal Interest Rate policy. Inflation directly impacts consumer behavior by reducing the buying power of their dollar. Interest Rates in turn have a direct impact Bond Markets, Corporate performance by driving cost of capital and Consumer Spending by driving cost of borrowing. Dollar denominated trending data are usually adjusted for inflation to convert them from "Nominal" to "Real" dollars.

Total CPI is also called "Headline" CPI and economists also focus on "core" CPI that excludes Food and energy prices that tend to be very volatile.

Producer Price Index

The producer Price Index is also a monthly report released by the Bureau of Labor Statistics and is a measure of the average price level paid by producers for a fixed basket of goods before they are passed along to the consumers. Although the PPI is released after the CPI, it can still be a leading indicator for



consumer inflation as the effect of PPI ripples through for several months forward, but the PPI is more volatile than the CPI. Similar to CPI, Food and Energy prices drive greater volatility in producer prices and hence economists tend to focus on “core” PPI excluding these two segments.

ISM Manufacturing Index

The ISM Manufacturing Index is a diffusion index obtained from a survey of manufacturing supply managers based on information they have collected within their organizations. The Index is reported monthly by the Institute for Supply Management. An Index reading above 50 indicates that the manufacturing economy is expanding and a reading below 50 indicates that it is generally declining. According to the ISM website, an Index in excess of 41.2 percent, over a period of time, indicates that the overall economy, or gross domestic product (GDP), is generally expanding; below 41.2 percent, it is generally declining. The distance from 50 percent or 41.2 percent is indicative of the strength of the expansion or decline. With some of the indicators within this report, ISM has indicated the departure point between expansion and decline of comparable government series, as determined by regression analysis.

The ISM Manufacturing Index measures strength and trend direction in the manufacturing sector. In addition to being a leading indicator on employment, it also provides some indication on inflation and commodity prices. The Index also bears upon the FOMC decisions around Interest Rates.

Consumer Confidence & Consumer Sentiment

Consumer Confidence Index is a monthly report computed by The Conference Board by surveying 5,000 Households and is conceptually supposed to be a leading indicator of Consumer Spending, although they are not always in alignment. Consumer Confidence impacts the market by driving expectations on consumer spending and on inflation (greater spending drives up inflation). Manufacturers and retailers are concerned about this number as it gives them so preview of consumer demand in the coming months and quarters, especially before key holiday periods.

Consumer Sentiment is also a monthly report that is released by the Institute for Social Research (ISR) of the University of Michigan (jointly distributed with Reuters). The report is based on a telephone survey of about 500 Households. The report is generally similar to the Consumer Confidence Index.

Interest Rate (Federal Funds Rate & Prime Rate)

The Federal Funds Rate is the key lever in the Federal Reserve to manage Inflation as well as economic performance. This is how the Federal Reserve exerts control over United States Money Supply.



Technically it is the overnight rate charged by private depository institutions to other depository institutions for loans against their balances at the Federal Reserve. The Federal Funds Rate directly impacts the Prime Rate because the Prime Rate is usually a 300 Basis Point premium to the Federal Funds Rate. The Prime Rate directly impacts consumer behavior as it is the rate at which most consumer credit is lent at including Credit Card and Home Equity debt.

Gross Domestic Product (GDP)

GDP is the broadest gauge of economic performance and is used to determine peaks and troughs in the economy. It is released quarterly by the Bureau Of Economic Analysis (BEA). The NBER determines recessions based on peaks and troughs in this measure. A peak in GDP indicates the onset of a recession and a trough indicates the onset of expansion. In reality the GDP is not a consistent measure and is prone to restatement several quarters down.

Components of GDP are tracked separately too- for instance Personal Consumption Expenditure (including Durable and Non-Durable Goods) measures the strength in Consumer Spending. Government consumption expenditures & gross investment (including Federal and State/Local spending) measures the strength in Government spending.

Since Government economists watch this metric closely, trends in this metric have a significant impact on economic policy. Also the Capital Markets watch this metric closely, which impacts stock-price performance. For businesses and marketers this is less useful as a metric because by the time this metric peaks/bottoms, businesses have already seen the effect in their revenues.

Employment & Personal Income

Measures of employment include the Non-Farm Payroll and the Unemployment Rate that are released monthly by the Bureau of Labor Statistics. The Non-Farm Payroll is watched more closely by market participants as it is more consistent and is based on a larger survey than the Unemployment Rate. Farm workers are excluded because the seasonal hiring tendency can distort overall trends. Government economists also tend to place a lot of emphasis on the Unemployment Rate as a determinant of economic policy.

Personal Income generally trends similar to employment but is a more immediate indicator of strength in the consumer economy. Disposable Income (excludes Personal Tax) from Personal Income and is an indicator of consumer spending propensity. The Personal Savings Rate tempers the impact of



Disposable Income trends on consumption- generally recessions and weak stock markets negatively impact retirement savings and spur a greater savings rate as Households try to bolster retirement funds.

Durable Goods Orders

Orders for Durable Goods are an indicator of longer term economic health. It is a monthly series released by the Census Bureau. Rising orders indicate stronger manufacturing activity in the near future, which in turn lead to rising corporate profits and stronger employment.

Also orders for Durable Goods drive secondary demand for capital goods to support the manufacturing activity, which drives productivity gains. A couple of key points- Defense and transportation orders increase volatility of Durable Goods and can be excluded to focus on the underlying trend. Also Durable Goods are measured in Nominal rather than Real (inflation-adjusted) dollars- growth in Real Durable Goods orders can be measured by normalizing Durable Goods dollars with the Producer Price Index (PPI).

Retail Sales

Retail Sales is released monthly by the Census Bureau and is also an indicator of consumption. Auto Sales drive a lot of variability in Retail sales and therefore economists generally look at Retail Sales ex-Auto. Retail Sales are available at a Sector level (based on the NAICS Industry classifications system), which gives more detailed information of where consumers are spending their money in comparison to other spending measures like Personal Consumption Expenditure, which only drill down to industry aggregates.

Gas Prices

Gas prices also impact consumer spending behavior- increasing gas prices reduce disposable income.

- Increasing gas prices lower retail sales as they result in fewer shopping trips.
- Increasing gas prices negatively impact profitability for industries that depend upon road transportation
- Gas prices negatively impact auto sales

Gas prices tend to be very volatile as 40% of retail gas prices are driven by Crude Oil costs.



A Model of the Consumer Economy

Each macroeconomic factor impacts consumption across different segments differently. The below econometric model of consumption elasticity measures the percent response in consumption for a 1 percent change in each economic factor (not all of the ones discussed above drive consumption

	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.

Based on this model, Employment and Inflation are generally the strongest drivers across different consumption segments. The consumption segments most sensitive to inflation are Sporting/Book/Music/Sales and Non-store Retail (including online) - this is intuitive because these are generally discretionary purchases. Not surprisingly the segments most sensitive to Housing sector are Furniture/Home Furnishings, followed by Food Services and Drinking Places as well as Food & Beverage Retail. The segments most susceptible to employment changes are Clothing/Clothing Accessories and Sporting/Book/Music Sales- again discretionary segments. Gas prices have a generally moderate negative impact on all segments except Non-store Retail that actually benefits from Gas Price increases.

Prime Rate has a very low impact on all consumption segments except Auto sales. Auto sales are generally very sensitive to all economic indicators.

In conclusion, the key point to remember about economic indicators and their effect on the economy is that these numbers are prone to significant measurement error in the short-term and need to be looked at as part of a longer term trend to really understand which way the economy and business environment is headed. Of course Capital Markets will always have new jerk reactions to short-term movements in these indicators.