



Economics Group

Interest Rate Weekly

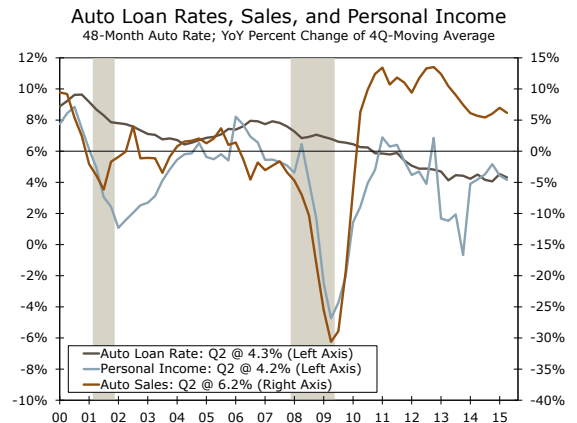
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Economics and Consumer Interest Rates: A Link?

It is generally accepted that, in most cases, consumer interest rates rise in step with fed fund rate changes and movements in Treasury yields. We explore more closely how consumer rates track economic changes.

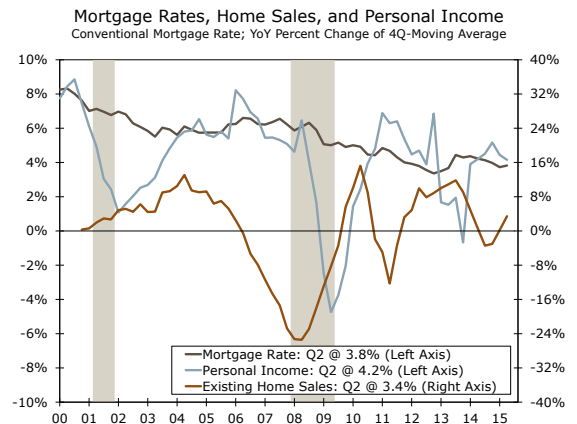
Auto Loans: Not as Responsive to Economic Changes

We begin our survey of how closely consumer interest rates move in response to changes in economic conditions with a look at the interest rate charged on an average 48-month new car loan. A simple elasticity analysis shows that auto loan rates typically rise as income declines, likely reflecting greater credit risk. In addition, there is a rather strong relationship between auto sales and nominal personal income. More fundamentally, as pointed out by Johnson, et al., auto sales not only account for an outsized portion of economic contractions, but the sales volumes are more a product of credit availability rather than just the pure interest rate.* While economic conditions are important factors in auto loan rates, it appears that other factors are playing a more dominate role.



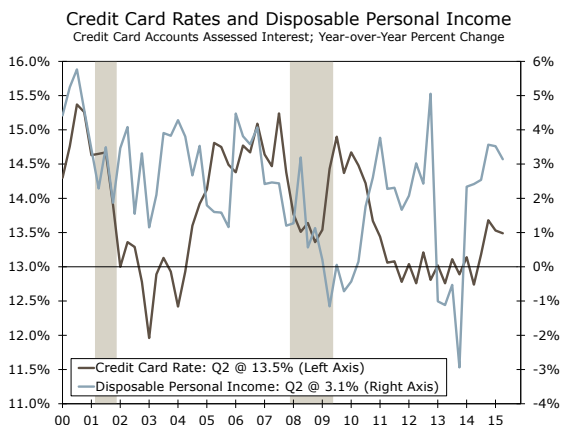
Mortgage Rates: Demand Driven

Mortgage rates, on the other hand, while still a product of credit availability, are also affected by income levels. The middle graph highlights the relationship between the conventional mortgage rate, personal income and existing home sales. As can be seen, there is very little volatility in home mortgage rates compared to personal income, but a simple elasticity analysis shows that as personal income declines, mortgage rates typically rise, likely reflecting higher credit risk. In addition, there appears to be a demand component as well with mortgage rates rising in response to existing home sales.



Credit Card Rates: More Sensitive to Personal Income

Consumer credit cards provide an important source of additional consumer spending and have the potential to provide a self-reinforcing economic recovery. Credit card rates seem to follow overall income metrics rather closely. Our analysis indicates that as personal income growth begins to slow, credit card rates begin to rise, again likely due to increased credit risk. In addition, since credit cards are used to drive consumer spending credit, card interest rates typically begin to rise around the mid-point of the business cycle, reflecting the greater demand for credit.



When it comes to the links between economic variables and consumer interest rates, we do not want to imply that better economic conditions necessarily directly cause these changes in interest rates. Rather, there is a combination of factors, including the stance of monetary policy and credit availability, in addition to the demand-driven factors, that could lead to interest rate changes for consumers. Our sensitivity analysis simply provides general guidelines to highlight the changes between rates and economic variables but does not describe the direction of causality between these variables. In reality, improving economic conditions usually lead to stronger demand which, in turn, results in higher rates due to both greater credit demand and tighter monetary policy.

Source: Federal Reserve Board, U.S. Dept. of Commerce, National Assoc. of Realtors and Wells Fargo Securities, LLC

*Johnson, K., Pence, K. and Vine, D. (2014). Auto Sales and Credit Supply. Board of Governors of the Federal Reserve System.

Wells Fargo U.S. Interest Rate Forecast

	Actual								Forecast			
	2014				2015				2016			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Quarter End Interest Rates												
Federal Funds Target Rate	0.25	0.25	0.25	0.25	0.25	0.25	0.50	0.75	1.00	1.25	1.50	1.75
3 Month LIBOR	0.23	0.23	0.24	0.26	0.27	0.28	0.70	0.95	1.20	1.45	1.70	1.95
Prime Rate	3.25	3.25	3.25	3.25	3.25	3.25	3.50	3.75	4.00	4.25	4.50	4.75
Conventional Mortgage Rate	4.34	4.16	4.16	3.86	3.77	3.98	4.15	4.23	4.28	4.37	4.63	4.75
3 Month Bill	0.05	0.04	0.02	0.04	0.03	0.01	0.13	0.55	0.86	1.15	1.33	1.62
6 Month Bill	0.07	0.07	0.03	0.12	0.14	0.11	0.27	0.63	0.91	1.22	1.42	1.65
1 Year Bill	0.13	0.11	0.13	0.25	0.26	0.28	0.69	0.99	1.24	1.57	1.79	2.07
2 Year Note	0.44	0.47	0.58	0.67	0.56	0.64	0.86	1.08	1.27	1.72	1.94	2.28
5 Year Note	1.73	1.62	1.78	1.65	1.37	1.63	1.78	1.89	2.01	2.20	2.32	2.51
10 Year Note	2.73	2.53	2.52	2.17	1.94	2.35	2.41	2.49	2.55	2.66	2.80	2.81
30 Year Bond	3.56	3.34	3.21	2.75	2.54	3.11	3.18	3.22	3.27	3.34	3.55	3.62

Forecast as of: August 12, 2015

Wells Fargo U.S. Economic Forecast and FOMC Central Tendency Projections

	<u>2015</u>	<u>2016</u>	<u>2017</u>
Change in Real Gross Domestic Product			
Wells Fargo	1.7	2.7	N/A
FOMC	1.8 to 2.0	2.4 to 2.7	2.1 to 2.5
Unemployment Rate			
Wells Fargo	5.2	4.8	N/A
FOMC	5.2 to 5.3	4.9 to 5.1	4.9 to 5.1
PCE Inflation			
Wells Fargo	0.9	2.1	N/A
FOMC	0.6 to 0.8	1.6 to 1.9	1.9 to 2.0

Forecast as of: August 12, 2015

NOTE: Projections of change in real gross domestic product (GDP) and in inflation are from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation is the percentage rate of change in the price index for personal consumption expenditures (PCE). Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated.

Fed Data as of: June 17, 2015

Source: IHS Global Insight, Bloomberg LP, Federal Reserve Board and Wells Fargo Securities, LLC

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