Dutta's Weekly Economic Digest



Neil Dutta – Head of Economics ndutta@renmac.com | 212.537.8826

Thursday, October 10, 2013

On a path to stronger growth

Forecast adjustment: Cutting Q3 and Q4 2013

We are cutting our Q3 GDP estimate to 2.3% bringing it in-line to our tracking model. The momentum heading into Q4 has been weak and as a result, we are shaving 0.5ppt off our Q4 GDP forecast, taking it to 3.0%.

Review: Battle of the brink

Financial markets are beginning to price in more adverse outcomes in Washington as the current stalemate shows few signs of abating. The longer the shutdown lasts, the bigger the hit to the economy will be.

Macro Mantra: On a path to stronger growth

Our optimistic forecast for 2014 is predicated on two factors. First, we see a fading of government fiscal drag relative to 2013. Second, as the fiscal shock begins to dissipate, the normal business cycle dynamics of recovery should assert themselves.

Data Preview: Beige Book and confidence due up

The calendar will be light so long as the government shutdown persists. There are two things we will be keeping an eye on. The first will be the U of M consumer sentiment index, released tomorrow. We expect a downside surprise given the squabbling in Washington and jitters in financial markets. The second will be the Fed's Beige Book, released next Wednesday. Given the dearth of data, the anecdotes from the regional Fed banks will take on greater importance.

Click here for Video

Click here for Video on iPad

(link enabled after you download and open this report on a PDF reader on iPad)

Click here for Audio Only



Macro Mantra On a path to stronger growth

- Forecast adjustment: We are cutting our Q3 GDP estimate to 2.3% bringing it in-line to our tracking model. The momentum heading into Q4 has been weak and as a result, we are shaving 0.5ppt off our Q4 GDP forecast, taking it to 3.0%.
- Review: Financial markets are beginning to price in more adverse outcomes in Washington as the current stalemate shows few signs of abating. The longer the shutdown lasts, the bigger the hit to the economy will be.
- Macro Mantra: Our optimistic forecast for 2014 is predicated on two factors. First, we see a fading of government fiscal drag relative to 2013. Second, as the fiscal shock begins to dissipate, the normal business cycle dynamics of recovery should assert themselves.

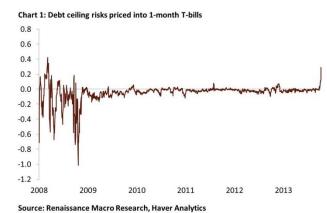
Forecast adjustment

We've cut our near-term GDP forecast (which probably means we are near the bottom in the S&P 500). While Q2 surprised on the upside, Q3 is shaping up to be weaker than expected. With slightly over half the data in, we are cutting our Q3 GDP estimate to 2.3% bringing it closer in-line to our tracking model. The momentum heading into Q4 has been weak and as a result, we are shaving 0.5ppt off our Q4 GDP forecast, taking it to 3.0%. Our 2013 Q4/Q4 forecast was cut 0.3ppt to 2.2%. The shutdown is a secondary consideration in this adjustment. That said, we remain above consensus on Q4 2013, and as we discuss in our *Macro Mantra*, 2014.

Review: Battle to the brink

Financial markets are beginning to price in more adverse outcomes in Washington as the current stalemate continues. This week, a four-week Treasury bill auction ended with the lowest bid-to-cover ratio since 2006, significantly worse than expected. Chart 1 illustrates that the rates on one-month Treasury bills, which may not be repaid on their due date, have moved up above three-month bills. Assuming the debt limit is not raised, the government will not have enough cash on hand to finance the payments on these auctioned T-bills.

Equities, for their part, have been under pressure, but are still far from signaling significant angst, down just 2% since the shutdown began. Equity markets seem to treat the risk of unlikely events as binary; it either happens or it does not. In the US, investors have seen this movie before both in the summer of 2011 and late 2012. Hedging tail risks only bears fruit under a rare set of circumstances. Thus, market disruptions were





relatively short-lived, but were also sharp and came near the end of the political drama. Legislators may take this latest battle to the brink, but we are not anticipating a severe 2011-like market disruption for two reasons: (1) improving growth in Europe and (2) less hard-landing risk in China.

The good and the bad of the shutdown impact

Turning to the real economy, let's start with the good news first. Recall that the direct mechanism through which the shutdown was to affect the economy was reduced income for federal workers. However, the civilian employees at the Pentagon are now back to work while legislation has been passed to give back-pay to furloughed federal workers. Assuming the government shutdown ends by November, there will be no direct impact to quarterly GDP. A weak start will be offset by a stronger finish.

The bad news? The direct hit to federal employees says very little about the spillovers to private economic activity. Consumer sentiment has already started to crack. While the direction of the impact is clearly negative, the magnitude of the impact on the economy is difficult to quantify. As Chart 2 illustrates, consumer confidence was quite weak in the aftermath of the August 2011 debt ceiling drama, and yet, consumer spending accelerated into year-end. The longer the shutdown lasts, the bigger the hit to the economy will be. If the government manages to stay out of the headlines for an extended period of time, three months from now, the shutdown will be an afterthought.

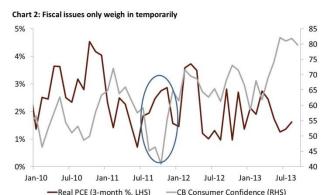
Macro Mantra: On a path to stronger growth

Our 2014 economic outlook (full table on page 6) is above consensus; we see growth roughly 50bps stronger than the median forecast (Chart 3). We see 3.1% annual growth. The bigger story, in our view, is that even the most pessimistic forecasters see between 2.0 to 2.3% growth.

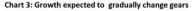
Our optimistic forecast for 2014 is predicated on two factors. First, we see a fading of government fiscal drag relative to 2013. Second, as the fiscal shock begins to dissipate, the normal business cycle dynamics of recovery should assert themselves. By a normal business cycle framework, there is plenty of upside to the US economy; we remain in the early stages of a cyclical recovery.

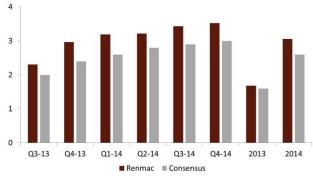
Fiscal drag dissipates

To gauge the outlook for next year, it's important to understand the state of underlying economic conditions. At present, the economy is managing through a 1.8ppt fiscal drag in 2013, defined as the annual change in the cyclical adjusted deficit relative to GDP. This is arguably the sharpest drag in nearly three decades (Chart 4). Despite this, the economy is on pace to



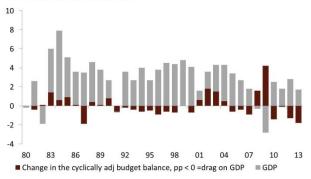
Source: Renaissance Macro Research, Haver Analytics





Source: Renaissance Macro Research, Bloomberg

Chart 4: Weathering the fiscal drag



Source: Renaissance Macro Research. CBO



Chart 5: Sub-par performance

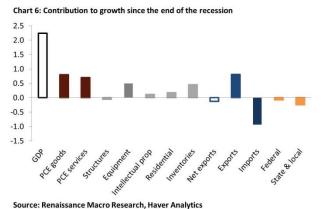
Average growth rate in first 4 years of expansion

6%

4%

1957 1960 1965 1973 1980 1986 1995 2005 2007 Present Average

Source: Renaissance Macro Research, Haver Analytics



expand roughly 2.0% this year, roughly in-line with the average growth rate during the first three years of recovery. Similarly, payrolls are averaging monthly gains of 165,000 thus far in 2013, the same pace as 2012. That the economy is steady in the face of a significant shock, implies a firmer foundation to future growth.

Business cycle dynamics kick-in

The recovery since mid-2009 has admittedly been disappointing. This below average economic performance is largely the result of a deep housing recession and banking crisis. This goes well beyond construction activity. For example, a sharp drop in home prices prompted a tightening of lending standards, forcing most households to cut back on mortgage and consumer debt, boost saving and slow consumer spending. Because local governments rely on property tax receipts, a drop in home values dried up funding for local governments, forcing budget consolidation.

Typically, four years into recovery the economy is expanding 4.4%. By contrast, four years into this recovery, the economy is averaging an annual growth rate of just 2.2%, or 2.2ppts below normal (Chart 5).Today, however, these shocks have abated. Chart 6 illustrates the average growth contribution by sector. Think of this as an accounting identity. The economy managed to expand 2.2% despite a drag from structures investment, trade, and government. Assuming structures investment and state and local governments return to a normal, we can see a path to 3% growth under a fairly conservative set of assumptions.

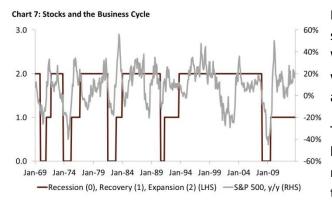
Inflation still a non-issue

We remain of the view that in developed economies, inflation is a slowly evolving process, especially outside of commodities, and picks up only when strong economic growth puts pressure on spare capacity. Sustained increase in inflation requires a feedback between wages, prices and expectations. While aggregate wages and salaries are expanding, household inflation expectations remain well anchored. With expectations anchored, inflation is somewhat less sensitive to swings in the business cycle. We expect core PCE inflation to rise next year closer to the Fed's flexible target, to 1.7% from 1.2% now.

Equities driven by earnings not multiple

Our optimistic outlook for the economy has important implications for capital market. In general terms this implies moving into riskier asset classes such as credit and equities and away from safer investments like Treasury bonds. For the equity market, in particular, we expect gains next year to be more dependent on corporate earnings as opposed to an





expansion of the market multiple. Our assumptions for nominal GDP and productivity point to an acceleration in corporate profits.

However, we do expect equity gains to moderate next year despite the stronger economy. Chart 7 builds on the work of economists from INSEAD. We assign values for recession (0), recoveries (1) and expansion (2). Our work implies that we are still in the recovery phase of the business cycle – a standard deviation below normal.

That we are still in recovery – as opposed to expansion – is a sign of just how slow economic growth has been since 2009. That said, the stock market has mounted a fairly dramatic run despite this. Indeed, we're on track to see double-digit gains in four of the last five years. Our guess is that we've likely pulled forward some equity gains. So, we're still upbeat on stocks just looking for modest gains relative to the last few years.



Economic projections

Real GOP 1.1 2.5 2.3 3.0 3.2 3.2 3.4 3.5 2.8 1.7 3.1 \$\frac{1}{8}\$\chap4 \text{Change, Year Ago}\$ 1.3 1.6 1.5 2.2 2.7 2.9 3.2 3.3 \$\frac{1}{8}\$\text{Consumption}\$ 2.1 1.7 3.1 \$\frac{1}{2}\$\text{Consumption}\$ 2.3 1.8 2.0 2.3 2.5 2.5 2.5 2.7 2.7 2.2 1.9 2.4 \$\frac{1}{2}\$\text{Consumption}\$ 2.3 1.8 2.0 2.3 2.5 2.5 2.5 2.7 2.7 2.2 1.9 2.4 \$\frac{1}{8}\$\text{Consumption}\$ 2.5 1.8 2.0 5.0 5.0 5.0 5.0 5.0 12.7 0.1 5.3 \$\frac{1}{8}\$\text{Equipment and Software}\$ 1.6 2.9 3.5 8.0 8.5 9.0 9.0 9.0 10.0 7.6 3.3 -13.6 \$\text{Intellectual Property}\$ 3.8 -0.9 2.5 4.0 5.5 5.5 5.5 6.5 6.5 6.5 3.4 2.8 4.6 \$\text{Residential Investment}\$ 12.5 12.9 7.0 12.5 17.5 17.5 15.0 15.0 12.9 12.9 14.5 \$\text{Inventory Accumulation}\$\text{(5)}\$ 42.2 6.2 6.6 69.6 77.6 79.6 82.6 85.6 90.6 57.6 63.0 84.6 \$\text{Contribution to GDP}\$ 0.9 0.6 0.2 0.2 0.0 0.1 0.1 0.1 0.1 0.2 0.0 0.1 \$\text{Net Exports}\$\text{(5)}\$ 4.22.3 4.22.0 4.11.7 4.06.0 4.03.0 4.03.4 4.03.8 4.07.1 4.40.8 4.15.5 4.08.2 \$\text{Exports}\$\text{(5)}\$ 4.22.3 0.0 0.3 0.2 0.1 0.0 0.3 0.0 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 \$\text{Government}\$\$\text{AVContribution to GDP}\$ -0.3 0.0 0.3 0.2 0.1 0.0 0.3 0.2 0.1 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Real Economic Activity (SAAR %)	Q1-13	Q2-13	Q3-13	Q4-13	Q1-14	Q2-14	Q3-14	Q4-14	2012	2013	2014
Final Sales	Real GDP	1.1	2.5	2.3	3.0	3.2	3.2	3.4	3.5	2.8	1.7	3.1
Consumption Consumer	% Change, Year Ago	1.3	1.6	1.5	2.2	2.7	2.9	3.2	3.3			
Nonresidential Fixed Invest	Final Sales	0.2	1.9	2.1	2.7	3.1	3.1	3.4	3.4	2.6	1.7	2.9
Structures -25.7 16.2 2.0 5.0 5.0 5.0 5.0 5.0 12.7 0.1 5.3	Consumption	2.3	1.8	2.0	2.3	2.5	2.5	2.7	2.7	2.2	1.9	2.4
Equipment and Software 1.6 2.9 3.5 8.0 8.5 9.0 9.0 10.0 7.6 3.3 -13.6 Intellectual Property 3.8 -0.9 2.5 4.0 5.5 5.5 5.5 6.5 6.5 3.4 2.8 4.6 8.6 Residential Investment 12.5 12.9 7.0 12.5 17.	Nonresidential Fixed Invest	-4.6	4.4	3.2	6.1	6.8	7.0	7.4	7.8	7.3	2.5	6.3
Intellectual Property 3.8 -0.9 2.5 4.0 5.5 5.5 6.5 6.5 3.4 2.8 4.6	Structures	-25.7	16.2	2.0	5.0	5.0	5.0	5.0	5.0	12.7	0.1	5.3
Residential Investment 12.5 12.9 7.0 12.5 17.5 17.5 15.0 15.0 12.9 12.9 14.5	Equipment and Software	1.6	2.9	3.5	8.0	8.5	9.0	9.0	10.0	7.6	3.3	-13.6
Inventory Accumulation (\$)	Intellectual Property	3.8	-0.9	2.5	4.0	5.5	5.5	6.5	6.5	3.4	2.8	4.6
Contribution to GDP 0.9 0.6 0.2 0.2 0.0 0.1 0.1 0.1 0.2 0.0 0.1 Net Exports (\$) -422.3 -422.0 -411.7 -406.0 -403.0 -403.4 -403.8 -407.1 -430.8 -415.5 -408.2 Exports -1.3 8.6 7.0 6.0 6.0 6.5 6.5 6.5 3.5 3.0 6.5 Imports 0.6 7.0 4.0 4.0 4.5 5.5 5.5 6.5 0.2 1.8 4.9 NX Contribution to GDP -0.3 0.0 0.3 0.2 0.1 0.0 0.0 -0.1 0.1	Residential Investment	12.5	12.9	7.0	12.5	17.5	17.5	15.0	15.0	12.9	12.9	14.5
Net Exports (\$)	Inventory Accumulation (\$)	42.2	62.6	69.6	77.6	79.6	82.6	85.6	90.6	57.6	63.0	84.6
Exports	Contribution to GDP	0.9	0.6	0.2	0.2	0.0	0.1	0.1	0.1	0.2	0.0	0.1
Imports 0.6 7.0 4.0 4.0 4.5 5.5 5.5 6.0 2.2 1.8 4.9	Net Exports (\$)	-422.3	-422.0	-411.7	-406.0	-403.0	-403.4	-403.8	-407.1	-430.8	-415.5	-408.2
NX Contribution to GDP	Exports	-1.3	8.6	7.0	6.0	6.0	6.5	6.5	6.5	3.5	3.0	6.5
Nonfarm Payrolls (MoM, 000s) 207 182 158 188 197 208 212 215 183 184 208	Imports	0.6	7.0	4.0	4.0	4.5	5.5	5.5	6.0	2.2	1.8	4.9
Nonfarm Payrolls (MoM, 000s) 207 182 158 188 197 208 212 215 183 184 208	NX Contribution to GDP	-0.3	0.0	0.3	0.2	0.1	0.0	0.0	-0.1	0.1	0.1	0.1
Nonfarm Payrolls (MoM, 000s) 207 182 158 188 197 208 212 215 183 184 208	Government	-4.2	-0.9	-0.5	-0.5	0.0	0.3	0.8	1.0	-1.0	-2.1	0.0
Private Payrolls (MoM, 000s) 212 190 158 183 192 203 207 210 189 186 203 Unemployment Rate 7.7 7.6 7.3 7.2 7.2 7.1 7.1 7.0 8.1 7.5 7.1 Housing Starts (000s) 957 869 897 964 1011 1041 1071 1101 783 922 1056 Light Vehicle Sales (SAAR) 15.3 15.5 15.7 15.4 15.7 16.0 16.1 16.3 14.5 15.5 16.0 Industrial Production (% SAAR) 4.2 0.7 2.0 4.2 5.2 5.3 5.4 5.8 3.6 2.4 4.4 Capacity Utilization 78.0 77.8 77.9 78.4 79.0 79.7 80.4 81.2 77.6 78.0 80.1 Inflation Consumer Price Index 1.4 0.0 2.6 1.7 1.3 2.0 2.4 2.4 2.1 1.5 1.8 % Change, Year Ago 1.7 1.4 1.5 1.4 1.4 1.9 1.8 2.0 Core CPI 2.1 1.4 1.8 1.9 1.9 1.9 1.9 1.9 2.1 1.8 1.3 % Change, Year Ago 1.5 1.2 1.7 1.7 1.8 1.8 1.9 1.9 1.9 2.0 Core PCE Chain Price Index 1.4 0.6 1.6 1.7 1.7 1.4 1.7 2.1 1.8 1.3 1.6 % Change, Year Ago 1.5 1.2 1.2 1.3 1.4 1.6 1.6 1.6 1.7 Inflates Teach Rate Forecasts Fed Funds 0.125 0.125 0.125 0.125 0.125 0.125 0.125 0.125 0.125 0.125 0.125 0.125 0.125 0.125 0.125 0.125 0.125 0.125 0.40 1.10 1.0 0.25 0.40 1.10 1.0 0.25 0.40 1.10 1.0 0.25 0.40 1.10 1.0 0.25 0.40 1.10 1.0 0.25 0.40 1.10 1.0 0.26 1.7 0.26 0.40 1.10 1.0 0.26 0.40 0.50 0.70 0.90 1.10 0.25 0.40 1.10 1.0 0.25 0.40 1.10 1.0 0.26 0.40 0.50 0.70 0.90 1.10 0.25 0.40 1.10 1.0 0.25 0.40 1.10 1.0 0.26 0.40 0.50 0.70 0.90 1.10 0.25 0.40 1.10 1.0 0.25 0.40 1.10 1.0 0.26 0.40 0.50 0.70 0.90 1.10 0.25 0.40 1.10 1.0 0.25 0.40 1.10 1.0 0.26 0.40 0.50 0.70 0.90 0.90 1.10 0.25 0.40 1.10 1.0 0.25 0.40 0.50 0.70 0.90 0.90 1.10 0.25 0.40 1.10 1.0 0.25 0.40 0.50 0.70 0.90 0.90 1.10 0.25 0.40 0.50 0.70 0.90 0.90 0.90 0.90 0.90 0.90 0.9	Key Indicators											
Unemployment Rate 7.7 7.6 7.3 7.2 7.2 7.1 7.1 7.0 8.1 7.5 7.1 Housing Starts (000s) 957 869 897 964 1011 1041 1071 1101 783 922 1056 Light Vehicle Sales (SAAR) 15.3 15.5 15.7 15.4 15.7 16.0 16.1 16.3 14.5 15.5 16.0 Industrial Production (% SAAR) 4.2 0.7 2.0 4.2 5.2 5.3 5.4 5.8 3.6 2.4 4.4 Capacity Utilization 78.0 77.8 77.9 78.4 79.0 79.7 80.4 81.2 77.6 78.0 80.1 Inflation Consumer Price Index 1.4 0.0 2.6 1.7 1.3 2.0 2.4 2.4 2.1 1.5 1.8 % Change, Year Ago 1.7 1.4 1.5 1.4 1.4 1.9 1.8 2.0 Core CPI 2.1 1.4 1.8 1.9 1.9 1.9 1.9 1.9 2.0 **Core PCE Chain Price Index 1.4 0.6 1.6 1.7 1.7 1.8 1.8 1.9 1.9 2.0 **Core PCE Chain Price Index 1.4 0.6 1.6 1.7 1.7 1.4 1.7 2.1 1.8 1.3 **Change, Year Ago 1.5 1.2 1.2 1.3 1.4 1.6 1.6 1.7 Interest Rate Forecasts Fed Funds 0.125 0.125 0.125 0.125 0.125 0.125 0.125 0.125 0.125 0.125 0.125 0.125 2-Year Treasury Note 1.85 2.49 2.61 2.85 3.1 3.2 3.3 3.45 1.76 2.85 3.45 30-Year Treasury Bond 3.10 3.50 3.68 3.8 3.9 3.95 4 4.05 2.95 3.8 4.05	Nonfarm Payrolls (MoM, 000s)	207	182	158	188	197	208	212	215	183	184	208
Housing Starts (000s) 957 869 897 964 1011 1041 1071 1101 783 922 1056 Light Vehicle Sales (SAAR) 15.3 15.5 15.7 15.4 15.7 16.0 16.1 16.3 14.5 15.5 16.0 Industrial Production (% SAAR) 4.2 0.7 2.0 4.2 5.2 5.3 5.4 5.8 3.6 2.4 4.4 Capacity Utilization 78.0 77.8 77.9 78.4 79.0 79.7 80.4 81.2 77.6 78.0 80.1 Inflation Consumer Price Index 1.4 0.0 2.6 1.7 1.3 2.0 2.4 2.4 2.1 1.5 1.8 % Change, Year Ago 1.7 1.4 1.5 1.4 1.4 1.9 1.8 2.0 Core CPI 2.1 1.4 1.8 1.9 1.9 1.9 1.9 1.9 2.1 1.8 1.3 % Change, Year Ago 1.9 1.7 1.7 1.8 1.8 1.8 1.9 1.9 2.0 Core PCE Chain Price Index 1.4 0.6 1.6 1.7 1.7 1.4 1.6 1.6 1.6 1.7 Interest Rate Forecasts Fed Funds 0.125 0.40 1.10 10-Year Treasury Note 1.85 2.49 2.61 2.85 3.1 3.2 3.3 3.45 1.76 2.85 3.45 30-Year Treasury Bond 3.10 3.50 3.68 3.8 3.9 3.95 4 4.05 2.95 3.8 4.05	Private Payrolls (MoM, 000s)	212	190	158	183	192	203	207	210	189	186	203
Light Vehicle Sales (SAAR) 15.3 15.5 15.7 15.4 15.7 16.0 16.1 16.3 14.5 15.5 16.0 Industrial Production (% SAAR) 4.2 0.7 2.0 4.2 5.2 5.3 5.4 5.8 3.6 2.4 4.4 Capacity Utilization 78.0 77.8 77.9 78.4 79.0 79.7 80.4 81.2 77.6 78.0 80.1 Inflation Consumer Price Index 1.4 0.0 2.6 1.7 1.3 2.0 2.4 2.4 2.1 1.5 1.8 % Change, Year Ago 1.7 1.4 1.5 1.4 1.4 1.9 1.8 2.0 Core CPI 2.1 1.4 1.8 1.9 1.9 1.9 1.9 1.9 2.1 1.8 1.3 % Change, Year Ago 1.9 1.7 1.7 1.8 1.8 1.9 1.9 1.9 2.0 Core PCE Chain Price Index 1.4 0.6 1.6 1.7 1.7 1.8 1.8 1.9 1.9 2.0 Change, Year Ago 1.5 1.2 1.2 1.2 1.3 1.4 1.6 1.6 1.6 1.7 Interest Rate Forecasts Fed Funds 0.125 0.1	Unemployment Rate	7.7	7.6	7.3	7.2	7.2	7.1	7.1	7.0	8.1	7.5	7.1
Industrial Production (% SAAR) 4.2 0.7 2.0 4.2 5.2 5.3 5.4 5.8 3.6 2.4 4.4 Capacity Utilization 78.0 77.8 77.9 78.4 79.0 79.7 80.4 81.2 77.6 78.0 80.1 Inflation Consumer Price Index 1.4 0.0 2.6 1.7 1.3 2.0 2.4 2.4 2.1 1.5 1.8 % Change, Year Ago 1.7 1.4 1.5 1.4 1.4 1.9 1.8 2.0 Core CPI 2.1 1.4 1.8 1.9 1.9 1.9 1.9 1.9 1.9 2.1 1.8 1.3 % Change, Year Ago 1.9 1.7 1.7 1.8 1.8 1.8 1.9 1.9 2.0 Core PCE Chain Price Index 1.4 0.6 1.6 1.7 1.7 1.8 1.8 1.9 1.9 2.0 Change, Year Ago 1.5 1.2 1.2 1.3 1.4 1.6 1.6 1.7 Interest Rate Forecasts Fed Funds 0.125	Housing Starts (000s)	957	869	897	964	1011	1041	1071	1101	783	922	1056
Capacity Utilization 78.0 77.8 77.9 78.4 79.0 79.7 80.4 81.2 77.6 78.0 80.1	Light Vehicle Sales (SAAR)	15.3	15.5	15.7	15.4	15.7	16.0	16.1	16.3	14.5	15.5	16.0
Inflation Consumer Price Index 1.4 0.0 2.6 1.7 1.3 2.0 2.4 2.4 2.1 1.5 1.8 % Change, Year Ago 1.7 1.4 1.5 1.4 1.4 1.9 1.8 2.0	Industrial Production (% SAAR)	4.2	0.7	2.0	4.2	5.2	5.3	5.4	5.8	3.6	2.4	4.4
Consumer Price Index 1.4 0.0 2.6 1.7 1.3 2.0 2.4 2.4 2.1 1.5 1.8 % Change, Year Ago 1.7 1.4 1.5 1.4 1.4 1.9 1.8 2.0 Core CPI 2.1 1.4 1.8 1.9 1.9 1.9 1.9 2.1 1.8 1.3 % Change, Year Ago 1.9 1.7 1.7 1.8 1.8 1.9 1.9 2.0 1.8 1.3 1.6 % Change, Year Ago 1.5 1.2 1.2 1.3 1.4 1.6 1.6 1.7 1.7 1.4 1.7 2.1 1.8 1.3 1.6 % Change, Year Ago 1.5 1.2 1.2 1.3 1.4 1.6 1.6 1.7 1.7 1.4 1.7 2.1 1.8 1.3 1.6 Interest Rate Forecasts Fed Funds 0.125 0.125 0.125 0.125 0.125 0.125 0	Capacity Utilization	78.0	77.8	77.9	78.4	79.0	79.7	80.4	81.2	77.6	78.0	80.1
% Change, Year Ago 1.7 1.4 1.5 1.4 1.4 1.9 1.8 2.0 Core CPI 2.1 1.4 1.8 1.9 1.9 1.9 1.9 2.1 1.8 1.3 % Change, Year Ago 1.9 1.7 1.7 1.8 1.8 1.9 1.9 2.0<	Inflation											
Core CPI 2.1 1.4 1.8 1.9 1.9 1.9 1.9 1.9 2.1 1.8 1.3 % Change, Year Ago 1.9 1.7 1.7 1.8 1.8 1.9 1.9 2.0 1.8 1.3 1.6 1.5 1.2 1.6 1.7 1.7 1.4 1.7 2.1 1.8 1.3 1.6 % Change, Year Ago 1.5 1.2 1.2 1.3 1.4 1.6 1.6 1.7 1.7 1.4 1.6 1.6 1.7 1.7 1.4 1.6 1.6 1.7 1.8 1.3 1.6 1.6 % Change, Year Ago 1.5 1.2 1.2 1.3 1.4 1.6 1.6 1.7 1.7 1.4 1.6 1.6 1.7 1.7 1.4 1.6 1.6 1.7 1.7 1.4 1.6 1.6 1.7 1.7 1.4 1.6 1.6 1.7 1.7 1.7 1.2 1.2 1.2 1.2 1	Consumer Price Index	1.4	0.0	2.6	1.7	1.3	2.0	2.4	2.4	2.1	1.5	1.8
% Change, Year Ago 1.9 1.7 1.7 1.8 1.8 1.9 1.9 2.0 Core PCE Chain Price Index 1.4 0.6 1.6 1.7 1.7 1.4 1.7 2.1 1.8 1.3 1.6 % Change, Year Ago 1.5 1.2 1.2 1.3 1.4 1.6 1.6 1.7 Interest Rate Forecasts Fed Funds 0.125	% Change, Year Ago	1.7	1.4	1.5	1.4	1.4	1.9	1.8	2.0			
Core PCE Chain Price Index 1.4 0.6 1.6 1.7 1.7 1.4 1.7 2.1 1.8 1.3 1.6 % Change, Year Ago 1.5 1.2 1.2 1.3 1.4 1.6 1.6 1.7 Interest Rate Forecasts Fed Funds 0.125	Core CPI	2.1	1.4	1.8	1.9	1.9	1.9	1.9	1.9	2.1	1.8	1.3
% Change, Year Ago 1.5 1.2 1.2 1.3 1.4 1.6 1.6 1.7 Interest Rate Forecasts Fed Funds 0.125	% Change, Year Ago	1.9	1.7	1.7	1.8	1.8	1.9	1.9	2.0			
Interest Rate Forecasts Fed Funds 0.125	Core PCE Chain Price Index	1.4	0.6	1.6	1.7	1.7	1.4	1.7	2.1	1.8	1.3	1.6
Fed Funds 0.125	% Change, Year Ago	1.5	1.2	1.2	1.3	1.4	1.6	1.6	1.7			
2-Year Treasury Note 0.24 0.35 0.32 0.40 0.50 0.70 0.90 1.10 0.25 0.40 1.10 10-Year Treasury Note 1.85 2.49 2.61 2.85 3.1 3.2 3.3 3.45 1.76 2.85 3.45 30-Year Treasury Bond 3.10 3.50 3.68 3.8 3.9 3.95 4 4.05 2.95 3.8 4.05	Interest Rate Forecasts											
10-Year Treasury Note 1.85 2.49 2.61 2.85 3.1 3.2 3.3 3.45 1.76 2.85 3.45 30-Year Treasury Bond 3.10 3.50 3.68 3.8 3.9 3.95 4 4.05 2.95 3.8 4.05	Fed Funds	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125
30-Year Treasury Bond 3.10 3.50 3.68 3.8 3.9 3.95 4 4.05 2.95 3.8 4.05	2-Year Treasury Note	0.24	0.35	0.32	0.40	0.50	0.70	0.90	1.10	0.25	0.40	1.10
	10-Year Treasury Note	1.85	2.49	2.61	2.85	3.1	3.2	3.3	3.45	1.76	2.85	3.45
10s/2s Treasury Curve (bps) 161 214 229 245 260 250 240 235 151 245 235	30-Year Treasury Bond	3.10	3.50	3.68	3.8	3.9	3.95	4	4.05	2.95	3.8	4.05
	10s/2s Treasury Curve (bps)	161	214	229	245	260	250	240	235	151	245	235

^{*}Shaded region represents baseline forecast



Legal Disclaimer

This document has been prepared by Renaissance Macro Research, LLC ("RenMac"), an affiliate of Renaissance Macro Securities, LLC.

This document is for distribution only as may be permitted by law. It is published solely for information purposes; it is not an advertisement nor is it a solicitation or an offer to buy or sell any financial instruments or to participate in any particular trading strategy. No representation or warranty, either express or implied, is provided in relation to the accuracy, completeness or reliability of the information contained in this document. The information is not intended to be a complete statement or summary of the markets, economy or other developments referred to in the document. Any opinions expressed in this document may change without notice. Any statements contained in this report attributed to a third party represent RenMac's interpretation of the data, information and/or opinions provided by that third party either publicly or through a subscription service, and such use and interpretation have not been reviewed by the third party.

Nothing in this document constitutes a representation that any investment strategy or recommendation is suitable or appropriate to an investor's individual circumstances or otherwise constitutes a personal recommendation. Investments involve risks, and investors should exercise prudence and their own judgment in making their investment decisions. The value of any investment may decline due to factors affecting the securities markets generally or particular industries. Past performance is not indicative of future results. Neither RenMac nor any of its directors, employees or agents accepts any liability for any loss (including investment loss) or damage arising out of the use of all or any of the information.

Any information stated in this document is for information purposes only and does not represent valuations for individual securities or other financial instruments. Different assumptions by RenMac or any other source may yield substantially different results. The analysis contained in this document is based on numerous assumptions and are not all inclusive.