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What Turns a Stall into a Slump?

- The past few weeks have seen a wave of pessimism about US economic prospects. Financial market participants have downgraded their views for growth (see top chart at right) and have become increasingly concerned about the risk of recession.
- The Federal Open Market Committee took a much dimmer view of the growth outlook and moved quickly to an easing stance, issuing a conditional commitment to hold the funds rate “exceptionally low” until mid-2013. Although hardly a done deal, we think another round of asset purchases is now more likely than not.
- In our own analysis and in conversations with clients, three basic concerns about the near-term US growth outlook consistently recur. First, the economy appears to be growing below its “stall speed”, implying the possibility of a vicious cycle of weaker income and weaker demand. Second, the European crisis is beginning to spill over into US financial conditions. Third, US fiscal policy is set to tighten further in the coming year.
- Increases in the unemployment rate provide the most reliable indicator that the economy is in recession or will be very soon. A model that augments the unemployment rate with other cyclical and financial measures suggests a nearly one-in-five probability that the economy is currently in recession.
- Over longer horizons, the predictive power of financial metrics and fiscal shocks dominates that of labor market variables. Given the current status of funding and credit markets, the probability of recession in six months still looks fairly low. But this result is highly sensitive to potential shocks from the European crisis or tighter fiscal policy (lower chart at right), so we continue to see the chance of recession in the United States as about one-in-three, fading gradually with each day that such shocks fail to appear in US data.

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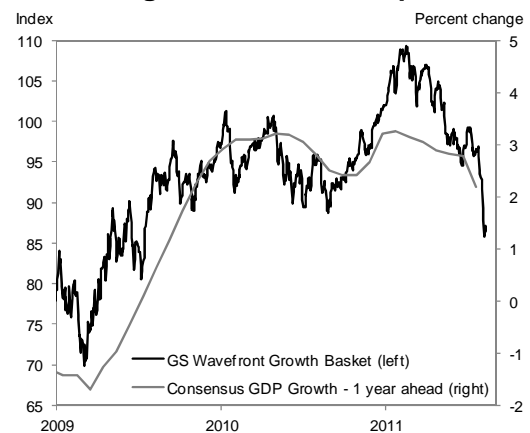
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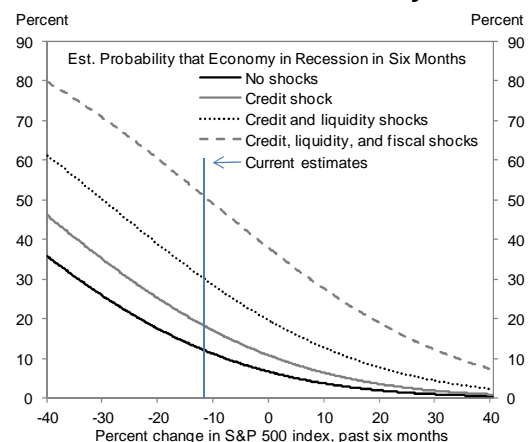
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A Downgrade in Growth Expectations

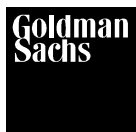


Source: Consensus Economics. GS Global ECS Research.

Assessing the European and Fiscal Shocks is Key



Source: GS Global ECS Research.



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I. What Turns a Stall into a Slump?

The past few weeks have seen a wave of pessimism about US economic prospects. Both financial market participants and economic policymakers have downgraded their views for growth—we are no exception—and have become increasingly concerned about the risk of recession.

As for markets, an enormous rally in fixed income has brought yields on Treasury inflation-protected securities into negative territory out to the ten-year maturity, while the equity market is down about 12% from its average level in July. Exhibit 1 illustrates the abrupt drop in the “consensus” one-year forward growth expectation of US economic forecasters and the even sharper drop in our Growth Wavefront, a long-short basket of equities designed to reflect the market’s views on future growth.

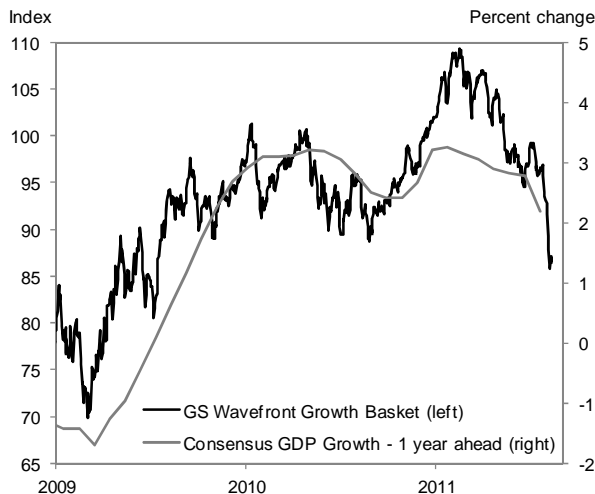
Policymakers have also expressed more concern about the outlook, with this week’s Federal Open Market Committee statement noting that “economic growth so far this year has been considerably slower than the Committee had expected” and “downside risks to the economic outlook have increased”. The more cautious view on activity was sufficient to prompt a conditional commitment to keep the funds rate “exceptionally low” until mid-2013.

Sources of Economic Angst

In our own analysis and in conversations with clients, three basic concerns about the near-term US growth outlook consistently recur:

1. **The economy appears to be growing at or below its “stall speed”.** Real GDP growth has averaged only 0.8% in the first half of 2011, even

Exhibit 1: A Downgrade in Growth Expectations



Source: Consensus Economics. GS Global ECS Research.

before what is likely to be a small downward revision to second-quarter growth. Our Current Activity Indicator—a summary measure of 25 high-frequency economic releases—has suggested activity growth of just over 1% in the past few months (Exhibit 2). With growth clearly below trend, the unemployment rate has crept up slightly, suggesting the possibility of a self-reinforcing deterioration in the economy.

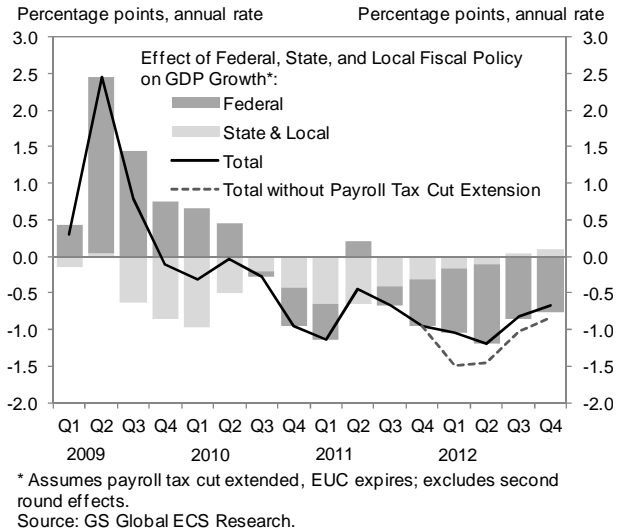
2. **European sovereign and banking stress is spilling over into US financial conditions.** Clearly, a substantial part of the drop in equities in recent weeks reflects heightened concerns over debt sustainability and bank solvency in several European countries. As we noted earlier this week, the financial environment has tightened enough since mid-July to slow growth by perhaps 30-40bp.¹ Some market participants fear a recurrence of a post-Lehman “levered losses” market unwind should these stresses continue.
3. **US fiscal policy is set to tighten further.** The bipartisan agreement on the debt ceiling extension allowed Washington—and the world—to breathe a sigh of relief. But policymakers left out any mention of short-term stimulus measures such as the payroll tax cut or extended unemployment benefits; should these expire at the end of year, fiscal drag will be intense in 2012 (Exhibit 3). The subsequent Standard and Poor’s downgrade of the US sovereign rating has if anything increased the likelihood of fiscal restraint.

Exhibit 2: A Sputtering Recovery



* First principal component of 25 weekly and monthly US activity indicators. Shaded area denotes recessions. Source: Department of Commerce. GS Global ECS Research.

¹ See Zach Pandl, “Financial Conditions Tighter on Net”, *US Daily*, August 10, for more discussion.

Exhibit 3: More Fiscal Tightening Ahead

In the remainder of this comment we explore the “stall speed” concept and then turn to statistical models to try to assess the probability of recession in coming months, and how sensitive that probability is to shocks from Europe or fiscal tightening.

Instrument Gauges for the “Stall Speed”

Numerous analysts have explored the concept of a “stall speed” for the US economy. The analogy of the economy to an airplane in flight is straightforward—the idea that once growth falls below a certain point (the airplane slows below its “stall speed”), then barring some sort of policy stimulus or other positive shock (restarting the engines), it will continue to decelerate until the economy falls into recession (the plane plummets).

The historical experience of the US economy seems consistent with the idea that there is a “stall speed” somewhere around 2% real GDP growth. For example, Jeremy Nalewaik of the Federal Reserve Board finds that since 1947, when two-quarter annualized real GDP growth falls below 2%, recession follows within a year 48% of the time.² When year-over-year real GDP growth falls below 2%, recession follows within a year 70% of the time. This is far above the unconditional probability that an economy currently in expansion enters a recession within a year (about 19%).

Despite this suggestive history, two important caveats are in order. First, GDP data can be revised, sometimes significantly. The recent sharp downward revision to first-quarter growth is a case in point. In general, real-time data are likely to be noisier, so

² “Forecasting Recessions Using Stall Speeds”, Federal Reserve Working Paper, April 14, 2011.

analysis using fully revised data is likely to overstate the accuracy of recession forecasts or other “rules of thumb”. Second, there does not seem to be a consistent “stall speed” across major economies. Using a consistent definition of recession, the probability that sub-2% growth over one year leads to recession in the next varies from 13%-70% among the G7 countries plus Australia.³ Still, there appears to be something here: slow growth over the past year works best as a signal for the US, Japan, and Germany, the three largest economies in the group and the ones presumably least sensitive to external shocks.

The evidence for a consistent “stall” pattern looks stronger if we focus on the behavior of the labor market. As we have noted repeatedly over the years, the US economy exhibits a distinct asymmetry in labor market behavior—an increase of more than a mere 35 basis points in the three-month moving average of the unemployment rate has historically led to recession within six months.⁴ The intuition for this result is that economic growth depends on a feedback loop between stronger demand and spending, and increased income flow resulting from that demand; if income growth is interrupted for more than a short period, a vicious cycle of weaker spending, weaker hiring, and therefore weaker income typically results. Indeed, the Nalewaik research cited earlier suggests that income-side measures of activity work better than the more widely followed GDP measures in predicting recessions, though this could be at least partly because such measures are released later than GDP and have smaller subsequent revisions.

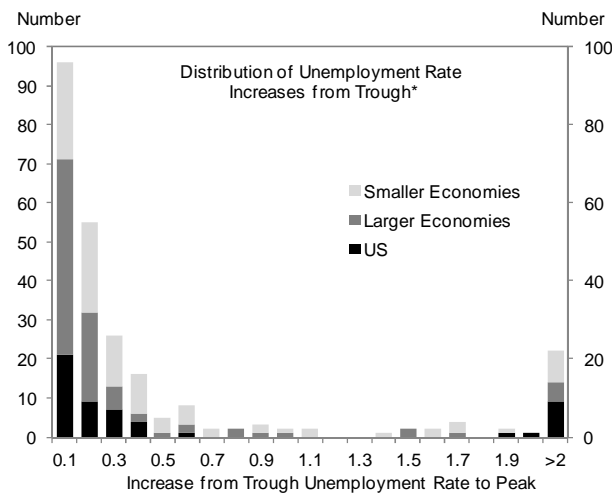
If this explanation is right, then there should be better evidence for a stall in cross-country labor market data than for growth data, because labor productivity growth varies across countries and over time. Exhibit 4 provides some tentative support for this notion. In most cases—particularly in larger countries—whenever the unemployment rate rises by at least half a point from a trough, it ends up rising by at least two points. The developed economy with the least evidence of labor market asymmetries is Canada, which also happens to be the most sensitive to a single foreign economy (the United States).

Exhibit 5 provides a summary of some simple recession rules of thumb and how well they work in practice. We show the “Type I error”—the chance of a false positive signal of recession—as well as the

³ We choose a methodology that yields recession dates very similar to the NBER dates in the US: put roughly, two consecutive quarters of negative growth, or a weak growth quarter falling between two negative quarters, are defined as a recession.

⁴ See “A Recap of Our Unemployment Rate Recession Rule of Thumb”, *US Daily*, August 2.

Exhibit 4: Evidence for a Labor Market “Tipping Point” in Large Countries



* Three-month avg rate, available post-WWII data. Source: Country statistical agencies. Haver. GS Global ECS Research.

“Type II error”—the probability that the rule will not signal a recession when one actually does occur. As the exhibit shows, the unemployment rate rule historically shows zero false positives, although it can often be quite late in signaling recession (the number of false negatives is high). Shortening the horizon of the forecast to three months, or lowering the threshold to a 20bp increase reduces the number of false negatives, but at the cost of some false positive signals. Rules of thumb that involve payroll growth or GDP growth—even on revised data—involve more uncertainty.

While useful to keep in mind, these rules clearly leave a lot to be desired. On the one hand, our analysis suggests that the “stall speed” for GDP growth may vary over time as productivity growth fluctuates; if productivity growth is lower than usual at present, the stall speed might be too. On the other hand, the unemployment rate often rises too late to serve as a useful warning sign.

To address these shortcomings, we constructed a regression model with indicators from the labor market (the change in the unrounded unemployment rate and the three-month change in payrolls), cyclical sectors (changes in housing starts and the ISM manufacturing index), financial markets (the S&P 500 equity index, the Treasury-Eurodollar spread, and the spread between Moody’s BAA corporate yield index and long-term Treasury yields). We use real-time data for the housing starts and payroll variables, which can be revised significantly, to avoid giving ourselves an advantage over the dataset that forecasters would have had at the time.⁵ Exhibit 6 shows the results:

⁵ Note we intentionally omitted the slope of the yield curve from our model; although historically it has

Exhibit 5: The Reliability of “Recession Rules of Thumb”

Indicator used	Parameters	Threshold	Recession within	Current estimate*	Historical error rate**	
					Type I (false positive)	Type II (false negative)
Unemployment	Avg rate, past 3 mos.	> 35bp***	6 mo	39%	0%	41%
		> 20bp***	3 mo	22%	48%	22%
Payroll growth	Ex-Census, 3-mo chg	< 1% ann.	6 mo	33%	30%	12%
		Private, 3-mo chg	6 mo	20%	16%	28%
Economic growth	Real GDP, past 2q	< 2% ann.	4 qtrs	42%	52%	18%
		Real GDP, yoy	4 qtrs	70%	30%	19%
		Real GDI, past 2q	4 qtrs	64%	36%	n/a

* In cases where current value is between two thresholds, probability of recession interpolated.
 ** Based on post-WWII US data. Employment indicators omit 18-month period following recessions.
 *** From most recent trough in three-month average unemployment rate.
 Source: Department of Labor. Department of Commerce. GS Global ECS Research.

collectively, these indicators give very reliable signals of whether the economy is currently in recession or not; the estimate using the latest data on financial market variables is 19% (about twice the probability the economy is in recession in any given month, given that it was expanding six months before).

Two Sources of Turbulence

We’re probably not in a recession now, but uncertainties abound, in particular the aforementioned risks from European financial stress and from the prospect of more US fiscal tightening. How do these affect the probability of recession going forward?

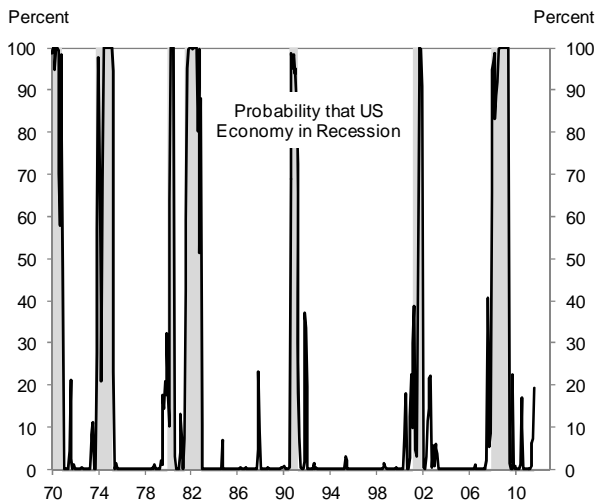
To analyze this question, we construct a second recession forecasting model, this time assessing the probability that the economy will be in recession six months from now. Again, we use only data as they were published at the time. As the horizon for the forecast moves farther into the future, labor market indicators become much less useful as recession signals—we drop payrolls and the unemployment rate—and market variables become relatively more important (we add bank lending standards and recent oil price changes, and the TED spread becomes much more important).⁶ Unlike the “recession now” model, this does generate a “false positive” result following the 1987 stock market crash, where the estimated probability of recession edged over 50% in one month.) Currently, the model shows only about a

been a great indicator of downturns in the economy, it is distorted by the “zero bound” on short-term interest rates and therefore is biased upward at present. Japan’s history over the past twenty years shows this indicator can give false signals at the “zero bound”—the economy has entered multiple recessions without the 2-year/10-year yield curve slope dipping much below one percentage point beforehand.

⁶ Unlike the “recession now” model, this does generate a “false positive” result following the 1987 stock market crash, where the estimated probability of recession edged over 50%.



Exhibit 6: Despite Weak Data, the Economy is Probably Not in Recession Now



Source: GS Global ECS Research.

10% probability of recession in six months, barely above a naïve forecast. This counterintuitive result is more understandable when we consider that the financial risks that worry the market have yet to cause major damage to US credit or liquidity gauges, and that the poor employment data provide little forecasting power over this horizon.

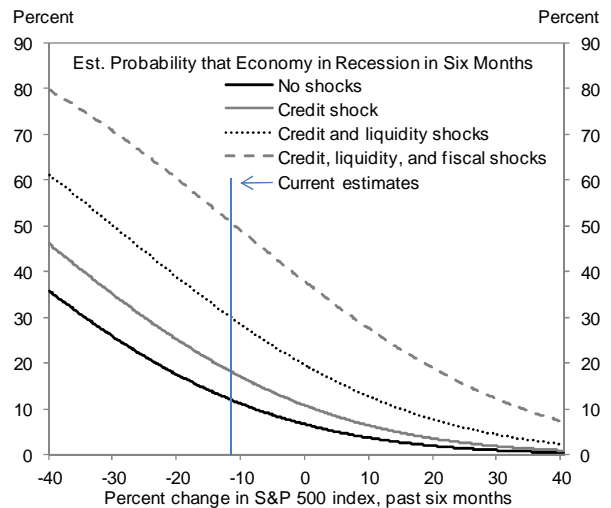
Still, there are reasons to be concerned about significant financial or fiscal shocks, which would dramatically increase the probability of recession. The risk from a potential European shock is overwhelmingly via financial rather than “real economy” (trade) linkages. Weakness in peripheral economies is likely to have only a marginal effect on US exports, and even in the case of a Europe-wide recession the impact on financial and credit conditions is likely to be more important. Our six-month ahead model includes variables that capture credit conditions (the Fed’s Senior Loan Officer Survey “willingness to lend to consumers” measure, and a measure of corporate credit spreads) and liquidity issues (the Treasury-Eurodollar spread). Insofar as the European crisis threatens a more damaging spillover to the US, it is likely to occur via one or more of these channels.

As for the fiscal outlook, the main near-term risk is an expiration of the 2% payroll tax holiday, which would tighten fiscal policy by roughly 2/3 of a percentage point of GDP in early 2012. Our model contains a measure of “fiscal shocks”; fiscal tightening is associated with a higher probability of recession subsequently.

Ranking the Risks

What is the sensitivity of our model to shocks from these areas? Exhibit 7 shows the estimated probability

Exhibit 7: Assessing the European and Fiscal Shocks is Key



Source: GS Global ECS Research.

of recession in six months’ time based on the recent performance of the equity market. The “base case” represents a situation where other variables in the model are at average levels; we then layer on a series of shocks – first fiscal, then credit, then liquidity-related.⁷ A fiscal shock alone raises the estimated probability of recession in six months to nearly 30%; with a credit shock to almost 40%, and if this comes along with heightened liquidity tensions to about 55%. We emphasize that the credit and liquidity shocks are one-standard-deviation shocks (20 points on the “willingness to lend” measure or about 95bp on the TED spread). Larger shocks would of course imply commensurately greater risk.

The bottom line: our models suggest a fairly low probability the economy is currently in recession, and—assuming the payroll tax cut is extended and there is no significant tightening in credit or liquidity conditions—an even lower probability in six months’ time. These chances increase significantly if fiscal policy tightens on the current schedule, and by even more if the European crisis results in a meaningful pullback in lending conditions (or worse yet, liquidity) in the United States. Taking into account the possibility of such shocks, we continue to see the chance of recession in the United States as about one-in-three, but fading gradually with each day that evidence of such shocks fails to appear. Muddling through with slightly below-trend growth of 2%-2½% remains our base case scenario.

Andrew Tilton

⁷ Probit models involve a nonlinear transformation into a 0%-100% probability range, so the effects of an incremental change in each variable depend on the level of that variable and all the others in the model.



II. Forecast Highlights

- 1. Following last week's revision, we now forecast that real GDP will grow by 2% (annualized) between now and 2012Q1. For the remainder of 2012 we expect growth of 2.5%.** Although oil prices have stabilized somewhat after their surge earlier this year, they are likely to remain a meaningful drag on consumer spending and business investment. And fiscal tightening—already more substantial in H1 than we expected—is apt to increase in 2012. We now see a one-in-three risk of renewed recession, for three main reasons. First, a worsening of the European financial crisis would hurt the economic outlook globally. Second, our forecast assumes that the payroll tax cut is extended for another year; if that failed to happen the fiscal drag in early 2012 would rise significantly. Third, the unemployment rate has increased in recent months, and such increases have historically had a tendency to feed on themselves.
- 2. We now expect the unemployment rate to be at 9¼% by the end of 2012, slightly above the current level.** Since our forecast entails growth that is slightly below the US economy's potential, we expect the unemployment rate to rise slightly to 9¼% at the end of 2012.
- 3. Core inflation peaks around the end of the year.** We continue to expect the core PCE price index to accelerate further to 1.9% yoy by the fourth quarter, from 1.3% now. Two factors contributing to the recent acceleration—a surge in vehicle prices and pass-through from higher commodity inflation—should begin to ease later in the year. Rising rent inflation—caused in part by a decline in homeownership and surge in demand for apartments—is likely to remain a source of inflation pressure in the major price indexes. Overall, however, we see headline and core inflation decelerating throughout 2012.
- 4. QE3 is now our base case.** We now see a greater-than-even chance that the Federal Open Market (FOMC) will resume quantitative easing later this year or in early 2012. We have changed our call because this week's FOMC statement suggests that the committee's reaction function to incoming economic news is more dovish than we had previously thought. Although Fed officials still expect a gradual decline in the unemployment rate, they made a conditional commitment to keep the funds rate unchanged “at least through mid-2013” and implied that they would employ additional policy tools in case their economic forecast deteriorated further. This would probably

mean more QE if their forecast converged to our own view of a flat-to-higher unemployment rate through the end of 2012, let alone our downside risk case of a renewed recession.

Fed Returns to Monetary Easing; Mixed Data

As anticipated, Tuesday's FOMC statement included a significant downgrade of the economic outlook. But the committee adopted an even easier policy stance than expected. First, the committee now anticipates that economic conditions are likely to warrant exceptionally low levels for the federal funds rate “at least through mid-2013” instead of “for an extended period.” Although we expected a strengthening of the guidance language and the rate commitment remains conditional on the economic outlook, we see this step as a dovish surprise. Moreover, the committee effectively signaled an easing bias saying that it discussed “the range of policy tools necessary to promote a stronger economic recovery” and that it “is prepared to employ these tools as appropriate.” Three members—Fisher, Kocherlakota and Plosser—dissented from this decision, the largest number of dissents since November 1992.

The dataflow this week was mixed. On the one hand, the June trade report and the most recent consumer confidence numbers surprised to the downside. The US trade balance unexpectedly deteriorated in June, falling to -\$53.1bn from -\$50.8bn previously. The University of Michigan index of consumer sentiment fell sharply in the preliminary August reading to 54.9. Except for April and May of 1980, this is the lowest reading in the history of the survey (November 2008 was slightly higher, at 55.3). The July retail sales report, on the other hand, contained positive surprises. Retail sales increased by 0.5% (mom) in July, as expected, but growth in June was revised higher. In particular, “core” retail sales (ex-autos, gasoline and building materials) were revised up to 0.4% in June (from +0.1% previously). Taken together, data released since the advance estimate was published imply a downward revision to Q2 GDP growth to around 1.0% (annualized) from the 1.3% pace originally reported.



THE US ECONOMIC AND FINANCIAL OUTLOOK

(% change on previous period, annualized, except where noted)

	2010	2011	2012	2011				2012			
		(f)	(f)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
OUTPUT AND SPENDING											
Real GDP	3.0	1.7	2.1	0.4	1.3	2.0	2.0	2.0	2.5	2.5	2.5
<i>Year-to-year change</i>				2.2	1.6	1.5	1.4	1.8	2.1	2.2	2.4
Consumer Expenditure	2.0	2.0	1.6	2.1	0.1	1.5	1.5	1.5	2.0	2.0	2.0
Residential Fixed Investment	-4.3	-1.8	5.1	-2.4	3.8	2.5	2.5	5.0	5.0	10.0	10.0
Business Fixed Investment	4.4	6.7	3.3	2.1	6.3	5.0	5.0	0.0	2.5	5.0	5.0
Federal Government	4.5	-1.9	-1.1	-9.4	2.2	-1.0	-1.0	-1.5	-1.5	-1.5	-1.5
State and Local Government	-1.8	-2.3	-0.4	-3.4	-3.4	-1.5	-1.0	0.0	0.0	1.0	1.0
Net Exports (\$bn, '05)	-421.8	-402.5	-336.6	-424.4	-405.7	-398.0	-381.9	-359.8	-339.9	-329.9	-316.8
Inventory Investment (\$bn, '05)	58.8	57.4	85.5	49.1	49.6	63.0	68.0	78.0	88.0	88.0	88.0
Industrial Production, Mfg	5.4	3.8	1.5	7.1	0.3	1.0	1.5	1.5	2.0	2.0	2.0
INFLATION (% ch, yr/yr)											
Consumer Price Index (CPI)	1.6	3.0	2.1	2.2	3.3	3.3	3.3	2.5	2.0	2.0	1.8
Core CPI	1.0	1.6	1.6	1.1	1.5	1.8	2.1	2.0	1.7	1.4	1.3
Core PCE*	1.4	1.5	1.5	1.1	1.3	1.7	1.9	1.9	1.7	1.3	1.2
Unit Labor Costs	-1.6	0.5	0.7	0.7	0.1	0.1	1.0	1.0	0.5	0.6	0.6
LABOR MARKET											
Unemployment Rate (%)	9.6	9.1	9.2	8.9	9.1	9.2	9.2	9.2	9.3	9.3	9.3
FINANCIAL SECTOR											
Federal Funds** (%)	0.18	0.10	0.10	0.14	0.09	0.10	0.10	0.10	0.10	0.10	0.10
3-Month LIBOR (%)	0.30	0.30	0.45	0.31	0.25	0.25	0.30	0.25	0.25	0.30	0.45
Treasury Yield Curve** (%)											
2-Year Note	0.62	0.50	1.25	0.70	0.41	0.40	0.50	0.50	0.75	1.00	1.25
5-Year Note	1.93	1.75	2.50	2.11	1.58	1.50	1.75	1.75	2.00	2.25	2.50
10-Year Note	3.29	3.00	3.50	3.41	3.00	2.75	3.00	3.00	3.25	3.25	3.50
30-Year Bond	4.42	4.10	4.25	4.51	4.23	4.00	4.10	4.10	4.20	4.20	4.25
Profits*** (% chg, yr/yr)	27.5	5.0	2.5	10.6	4.5	3.0	2.5	2.5	2.5	2.5	2.5
Federal Budget (FY, \$ bn)	-1,294	-1,275	-1,025	-	-	-	-	-	-	-	-
FOREIGN SECTOR											
Current Account (% of GDP)	-3.2	-3.1	-2.8	-3.2	-3.2	-3.0	-3.0	-2.9	-2.8	-2.8	-2.8
Euro (\$/€)**	1.32	1.50	1.55	1.40	1.44	1.45	1.50	1.53	1.55	1.55	1.55
Yen (¥/\$)**	83	76	74	82	80	77	76	75	74	74	74

* PCE = Personal consumption expenditures. ** Denotes end of period. *** Profits are after taxes as reported in the national income and product accounts (NIPA), adjusted to remove inventory profits and depreciation distortions.

NOTE: Published figures are in bold

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US Calendar

Focus for the Week Ahead

- Although headline consumer and producer prices likely accelerated in July, we look for a slight cooling of core price inflation (August 17, 18).
- Following the deterioration in the forward-looking elements of last month's manufacturing ISM index, we look for a decline in the Philadelphia Fed survey in August (August 18).
- Housing starts likely declined in July, while existing home sales bounced (August 16, 18).
- Rising hours worked, and a rebound in auto production as the Japan-related supply chain disruptions fade, point to a solid increase in industrial production in July (August 16).

Date	Time (EST)	Indicator	Estimate		
			GS	Consensus	Last Report
Mon Aug 15	8:30	Empire Manufacturing Survey (Aug)	n.a.	Flat	-3.8
	9:00	Net Long-Term TIC Data (Jun)	n.a.	+\$30.2bn	+\$23.6bn
	10:00	Homebuilders' Survey (Aug)	n.a.	15	15
	13:25	Atlanta Fed Pres Lockhart spks on US economy; Alabama			
Tue Aug 16	8:30	Housing Starts (Jul)	-5.0%	-4.6%	Flat
	8:30	Import & Export Prices (Jul)	n.a.	-0.1%	-0.5%
	9:00	Fed official Bertsch testifies on Banking Supervision			
	9:15	Industrial Production (Jul)	+0.5%	+0.5%	+0.2%
Wed Aug 17	9:15	Capacity Utilization (Jul)	76.9%	77.0%	76.7%
	8:30	Producer Price Index (Jul)	+0.1%	+0.1%	-0.4%
		Ex Food & Energy	+0.2%	+0.2%	+0.3%
Thu Aug 18	13:20	Dallas Fed Pres Fisher spks a forum; Midland, TX			
	8:30	Consumer Price Index (Jul)	+0.4%	+0.2%	-0.2%
		Ex Food and Energy	+0.2%	+0.2%	+0.3%
		Consumer Price Index NSA	225.530	225.956	225.722
	8:30	Initial Jobless Claims	n.a.	400,000	428,000
	8:30	Continuing Claims	n.a.	3,700,000	3,702,000
	8:35	NY Fed Pres Dudley spks on regional economy; Newark, NJ			
	10:00	Existing Home Sales (Jul)	+8.0%	+2.7%	-0.8%
	10:00	Philadelphia Fed Survey (Aug)	-1.0	+3.7	+3.2
	10:00	Leading Indicators (Jul)	n.a.	+0.2%	+0.3%
Fri Aug 19	14:30	NY Fed Pres Dudley tours Jersey City, NJ			
	8:30	NY Fed Pres Dudley spks on regional economy; Lyndhurst			
	10:00	CBO Update			
	13:45	Cleveland Fed Pres Pianalto spks on economy; Columbus			

