

US Economics Analyst

Economics Research

Policy Uncertainty: Is Now the Time?

- A common explanation for the economy's disappointing performance in recent years is a rise in "policy uncertainty," a term popularized by Nicholas Bloom of Stanford University and his co-authors. They suggest that the increase in their "US policy uncertainty index"—which is based on news searches, expiring tax provisions, and forecaster disagreement—has depressed real GDP by more than 3%.
- We do not doubt that uncertainty shocks depress economic activity, or that uncertainty has risen substantially since 2006. But we do not believe that the economy's poor performance has been caused by an exogenous increase in US policy uncertainty.
- First, the observation that most forecasters have been surprised by the economy's poor performance probably says more about the forecasters than about the economy. The historical record shows clearly that the bursting of a large asset price and debt bubble inflicts enormous and long-lasting damage on economic activity, and the recent US performance is no worse than that record would suggest.
- Second, much of the increase in policy uncertainty is probably a consequence of economic weakness, rather than its cause. Indeed, if we "purge" the uncertainty index of its correlation with past economic activity, it shows a much smaller increase since 2006.
- Third, it is likely that a significant part of the increase in the US policy uncertainty index is due to the European crisis, as opposed to home-grown factors. If we purge the index of its correlation with both past economic activity and European uncertainty, it shows little change since 2006, apart from the period around the 2011 debt ceiling crisis.
- A policy uncertainty shock is a threat over the next few months, as the fiscal cliff draws closer. The leading indicators for capital spending have weakened notably in recent months, suggesting that such a shock may already have started. That said, other indicators—including some that are typically quite sensitive to uncertainty, such as consumer confidence—have come in strong recently, so it is still a downside risk rather than a certainty.

Jan Hatzius

(212) 902-0394 jan.hatzius@gs.com
Goldman, Sachs & Co.

Alec Phillips

(202) 637-3746 alec.phillips@gs.com
Goldman, Sachs & Co.

Jari Stehn

(212) 357-6224 jari.stehn@gs.com
Goldman, Sachs & Co.

Shuyan Wu

(212) 902-3053 shuyan.wu@gs.com
Goldman, Sachs & Co.

Investors should consider this report as only a single factor in making their investment decision. For Reg AC certification and other important disclosures, see the Disclosure Appendix, or go to www.gs.com/research/hedge.html.



Policy Uncertainty: Is Now the Time?

US economic performance over the past five years has been a major disappointment. Forecasters at the Federal Reserve, in the White House, and in the private sector severely underestimated the depth of the slump and overestimated the speed of the recovery."

A common explanation for this disappointment is an increase in "policy uncertainty," a term popularized in recent years by Nicholas Bloom of Stanford University and his co-authors.¹ Bloom et al. argue that a variety of factors—including an unusually large number of expiring tax code provisions, last summer's debt ceiling debacle, the revamping of financial regulations, health care reform, unconventional Fed easing, and the crisis in Europe—have sharply curtailed the private sector's ability to plan for the future and have thereby depressed economic activity.

Specifically, Bloom et al. measure policy uncertainty as a weighted average of three series. The first is based on newspaper searches for a combination of "economic/economy," "uncertain/uncertainty," and one or more of the following terms: "policy," "tax," "spending," "Federal Reserve," "budget," or "deficit". The second series is based on the number of federal tax provisions facing expiration. The third series measures the disagreement between economic forecasters about inflation and government purchases. Their composite index is shown in Exhibit 1.

Bloom et al. show that their policy uncertainty index is statistically related to subsequent weakness in GDP, investment, industrial production, and employment. They conclude that "an increase in policy uncertainty equal to the actual change between 2006 and 2011 foreshadows large and persistent declines in aggregate outcomes, with peak declines of 3.2% in real GDP, 16% in private investment and 2.3 million in aggregate employment." Other authors have come to similar conclusions.²

The Role of Policy Uncertainty So Far

We have no doubt that uncertainty shocks depress economic activity. We also have no doubt that uncertainty—both in general and with respect to economic policy—has risen substantially since 2006. Although one can quibble with the specifics of the Bloom et al. index, other measures—longer-dated stock market volatility, the share of consumer expecting an "uncertain future," and many anecdotal reports—also point to heightened uncertainty. And it makes perfect sense that policy uncertainty is higher in an environment of very large budget deficits, a high and rising government debt/GDP ratio, near-zero short-term interest rates, and an exceptionally large Fed balance sheet—in other words, macroeconomic policy settings that are unusually accommodative and will ultimately need to be normalized.

But we have three concerns about the idea that policy uncertainty—and specifically, *US* policy uncertainty—has *caused* the disappointing pace of recovery since 2009.

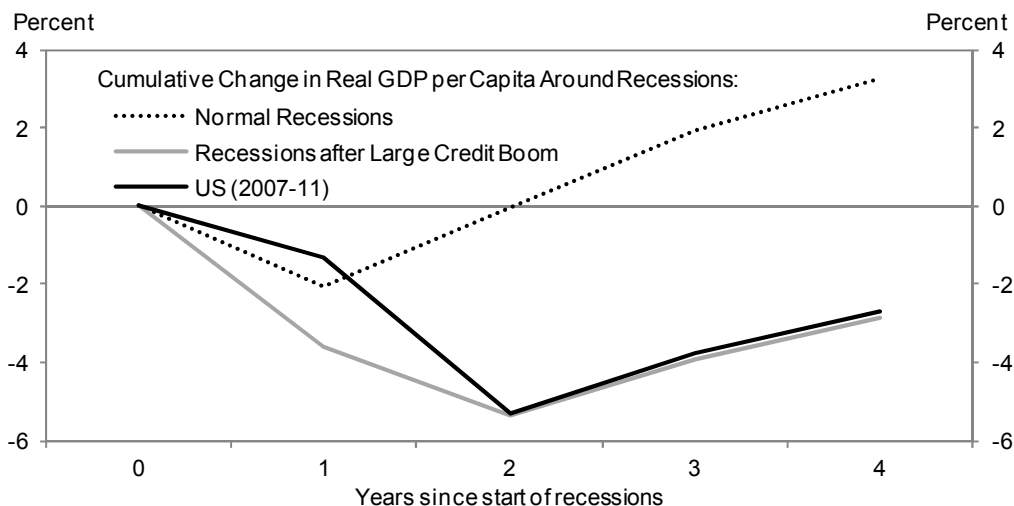
First, the observation that most forecasters have been surprised by the economy's poor performance probably says more about the forecasters than about the economy. The historical record shows clearly that the bursting of large asset price and debt bubble inflicts

¹ See Scott R. Baker, Nicholas Bloom, and Steven J. Davis, "Measuring Economic Policy Uncertainty," <http://www.policyuncertainty.com/media/BakerBloomDavis.pdf>.

² Using similar methods as Bloom et al., the IMF's latest *World Economic Outlook* argues that the increase in policy uncertainty between 2006 and 2011 may have stymied growth in advanced economies by 2½ percentage points cumulatively. Using a different measure of uncertainty that focuses more on consumer perceptions, the San Francisco Fed estimates that the increase in uncertainty has pushed up the US unemployment rate by between 1 and 2 percentage points.

enormous and long-lasting damage on economic activity. The now-classic reference is the book *This Time Is Different* by Carmen Reinhart and Kenneth Rogoff. An alternative illustration is the work by Moritz Schularick and Alan Taylor (Exhibit 1).³ Based on a total of 200 business cycles in 14 advanced countries since 1870, they show that normal recessions typically involve a 2% drop in real GDP per capita in year 1, followed by a recovery to the starting point in year 2 and growth averaging about 1.5% per capita in subsequent years. However, recessions following large debt booms—similar to the one that the US experienced prior to 2007—typically involve a cumulative 5% drop in real GDP per capita in years 1 and 2, followed by a recovery that only returns GDP to the starting point in year 5 or later. The US economy has performed in line with (or slightly better than) the historical average of financial recessions following a big debt buildup.

Exhibit 1: Uncertainty Not Needed to Explain Sluggish Recovery



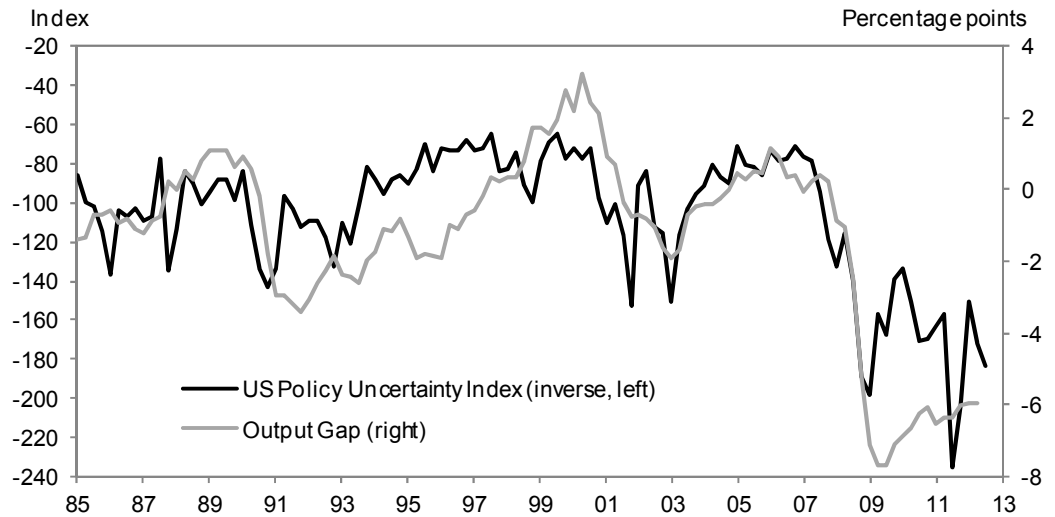
Source: Schularick and Taylor (2012).

Second, much of the policy uncertainty is probably a byproduct of current or past economic weakness, rather than a cause of future weakness. Exhibit 2 supports this contention by plotting the US policy uncertainty index against the output gap as estimated by the CBO, and showing that the two are roughly coincident with one another. This does not conflict with the econometric results in Bloom et al. showing that an exogenous shock to policy uncertainty depresses economic activity. But it does cast doubt on the idea that the increase in policy uncertainty in recent years was in fact exogenous.

Formal statistical analysis supports the view that the causation runs both ways: higher uncertainty causes lower activity and lower activity causes higher uncertainty. Exhibit 3 therefore attempts to address this issue by estimating a version of the US policy uncertainty index that strips out the effect of lagged US economic activity on the policy uncertainty index. The fact that the “purged” index has increased much less since 2006 suggests that the weakness in US growth “explains” much of the observed increase in policy uncertainty.

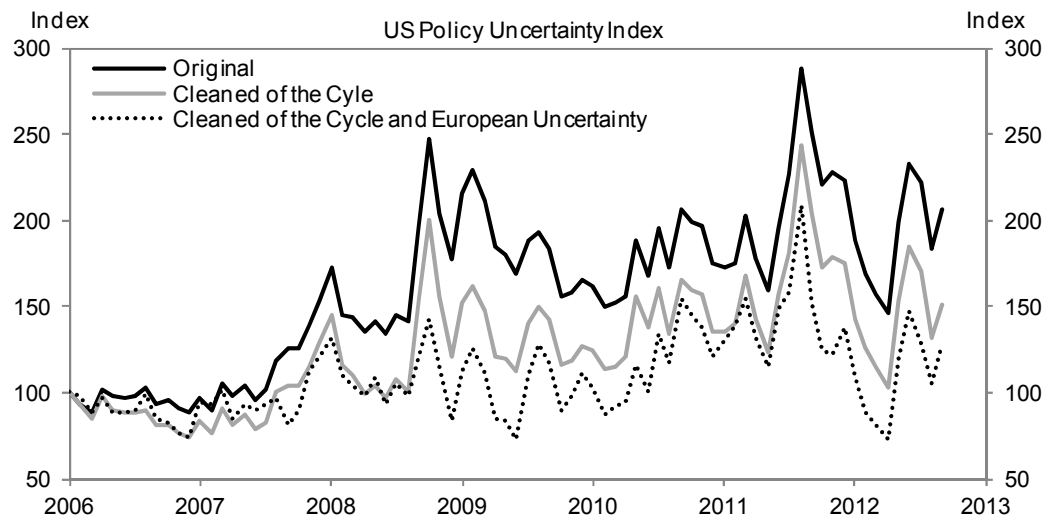
³ See Moritz Schularick and Alan Taylor, “Fact-Checking Financial Recessions,” <http://www.voxeu.org/article/fact-checking-financial-recessions>.

Exhibit 2: Is Policy Uncertainty Cause or Effect of the Weak Economy?



Source Bloom et al (2012). Congressional Budget Office.

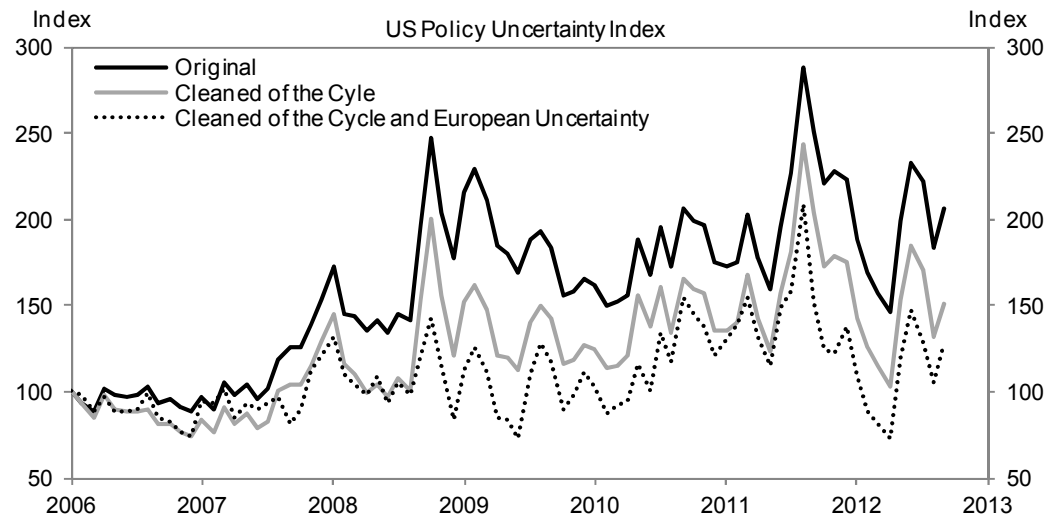
Exhibit 3: Purging the US Policy Uncertainty Index



Source: GS Global ECS Research.

Third, it is likely that a significant part of the increase in the US policy uncertainty index is due to the European crisis, as opposed to home-grown factors. Exhibit 4 plots the European policy uncertainty index from Bloom et al. against the US index. The two indexes are constructed in similar ways, and there is no way to ensure that either index responds only to domestic factors. For example, both the US debt ceiling crisis and the European financial crisis are likely to show up in similar ways in articles in the *Wall Street Journal* (a source for the US index) and the *Financial Times* (a source for the European index). We therefore follow a similar strategy to above and strip out the effect of (contemporaneous and lagged) European policy uncertainty on the US policy uncertainty index.⁴ Exhibit 3 shows that purging both cyclical factors and European uncertainty from

⁴ To the extent that changes in the European uncertainty index actually reflect changes in US uncertainty—for example, when the fiscal cliff is picked up in European newspapers—our method might strip out too much of the increase from the US policy uncertainty index.

Exhibit 4: US vs. European Policy Uncertainty

Source: GS Global ECS Research.

the uncertainty index results in little net increase since 2006. The only real exception is the 2011 debt ceiling crisis, which did cause a large rise even in the purged policy uncertainty index. There are also some signs that the purged index is on the rise again more recently, perhaps in anticipation of the fiscal cliff of 2013.

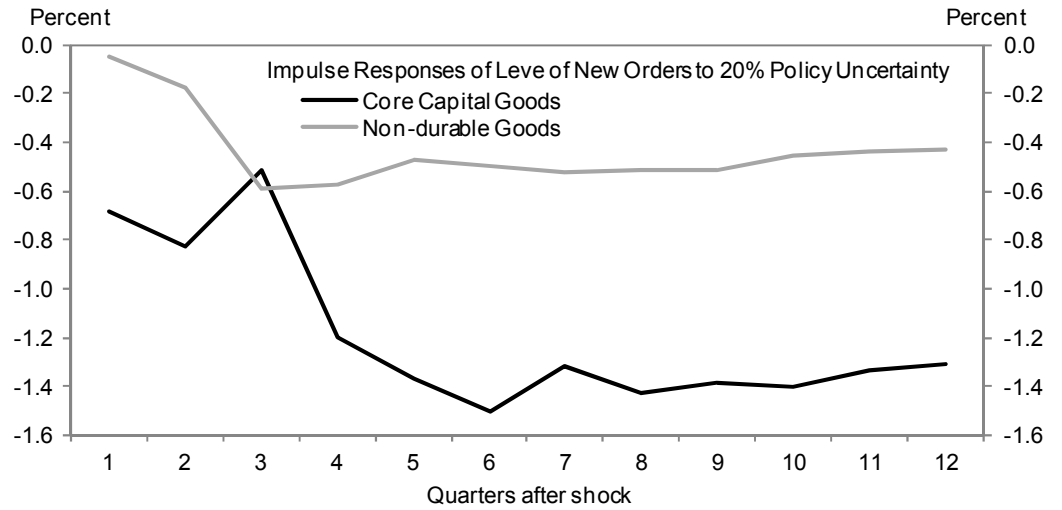
Is Now the Time?

Although we doubt that policy uncertainty explains the economy's disappointing performance over the past few years, we do worry that the (modest) increase in the purged index in recent months foreshadows a more central role in coming quarters. As the US economy approaches the fiscal cliff at yearend, there is now a compelling and largely exogenous reason to expect an increase in policy uncertainty, which could deal a nasty blow to economic activity.

Perhaps the most obvious area of concern is capital spending. Both Bloom et al. and our own analysis show that capital spending is substantially more sensitive to policy uncertainty shocks than other areas, to a degree that is not just explained by its greater cyclical nature. Exhibit 5 shows our estimates of the dynamic responses of core capital goods orders and nondurable goods orders to a policy uncertainty shock that is scaled to the recent increase in the purged index. Both series react negatively, but the impact on core capital goods orders is about three times as large.

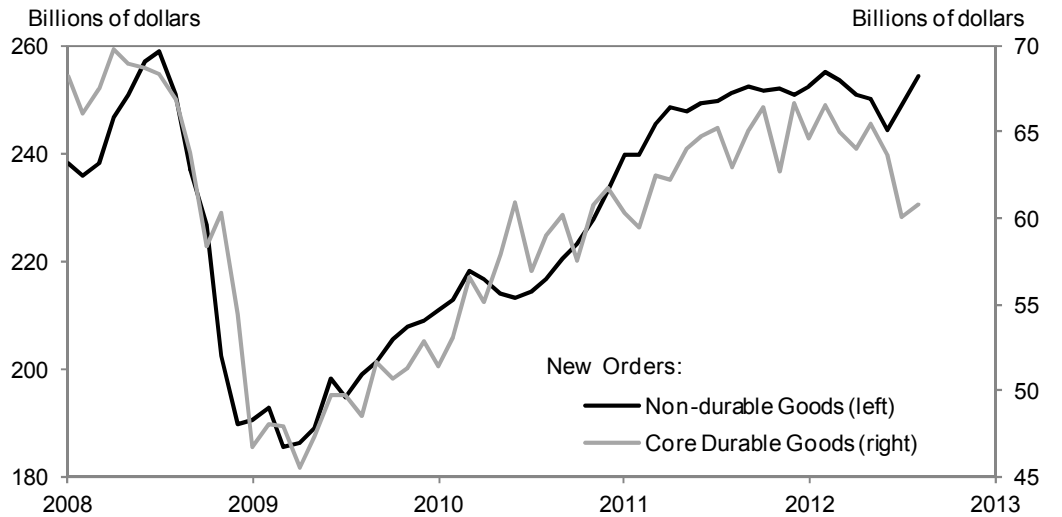
Some of the recent economic indicators suggest that policy uncertainty might already have started to depress capital goods orders. As shown in Exhibit 6, core capital goods orders have fallen by some 7% over the past three months, even while nondurable goods orders have risen somewhat. Exhibit 7 shows that the six-month forward capital spending plans in the monthly business surveys by the Philadelphia and New York Fed have also fallen to levels only seen in or just prior to recessions in recent years.

Exhibit 5: Higher Uncertainty Weighs Particularly on Durable Goods Orders ...



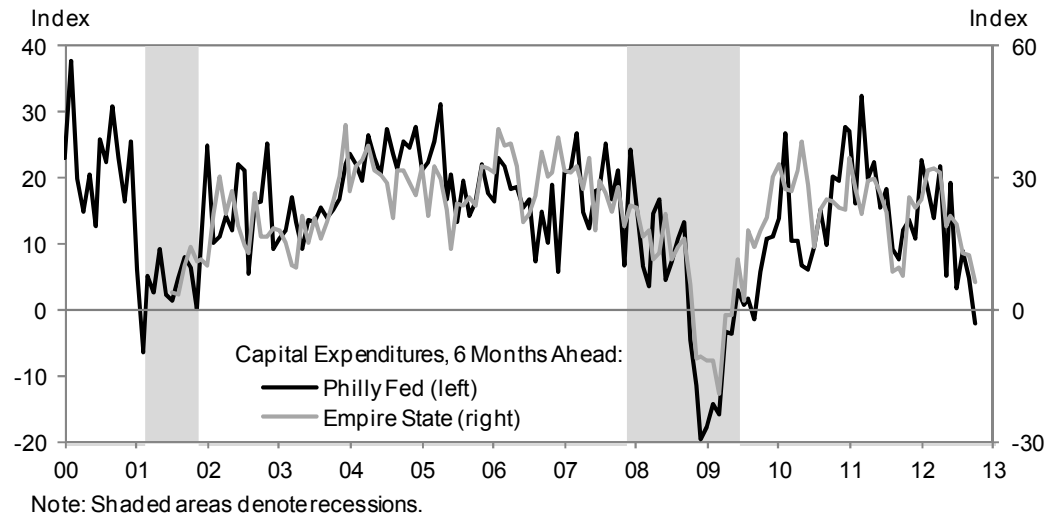
Source: GS Global ECS Research.

Exhibit 6: ...As Has Been the Case Recently



Source: Department of Commerce.

Exhibit 7: A Sharp Drop in Capital Spending Plans



Source: FRB Philadelphia. FRB New York.

But the evidence that a policy uncertainty shock is already depressing activity is far from unequivocal. Most of the economic data have beaten expectations in recent weeks; for example, our Current Activity Indicator (CAI) stands at 2.8% for September, the strongest reading since March, and our US-MAP surprise index recently climbed into positive territory for the first time since early April. Moreover, the strength extends to some indicators that are normally quite sensitive to policy uncertainty; for example, consumer confidence has surged recently. The jury on whether we are already seeing a policy uncertainty shock unfold is therefore still out.

Ultimately, we view policy uncertainty as one more reason to worry that the better recent US economic growth pace may not be sustained, in addition to our concerns about the more “mechanical” adverse effects of fiscal tightening on household disposable income and government spending. While the mechanical effects are relatively easy to estimate—at least for given fiscal policy decisions—and lie behind our forecast that real GDP growth will again slow to a 1.5% pace in early 2013, the uncertainty effects are more difficult to model and present a potential downside risk to this forecast.

Jan Hatzius
Sven Jari Stehn

The US Economic and Financial Outlook

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

	2010	2011	2012 (f)	2013 (f)	2012				2013			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
OUTPUT AND SPENDING												
Real GDP	2.4	1.8	2.2	1.9	2.0	1.3	2.1	2.0	1.5	2.0	2.5	2.5
<i>Year-to-year change</i>					2.4	2.1	2.3	1.8	1.7	1.9	2.0	2.1
Consumer Expenditure	1.8	2.5	1.9	1.5	2.4	1.5	2.0	1.5	1.0	1.5	2.0	2.0
Residential Fixed Investment	-3.7	-1.4	11.5	11.7	20.5	8.5	13.2	10.0	10.0	12.5	15.0	15.0
Business Fixed Investment	0.7	8.6	7.7	6.3	7.5	3.6	-0.1	5.0	7.5	7.5	10.0	10.0
Federal Government	4.5	-2.8	-2.8	-2.4	-4.2	-0.2	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5
State and Local Government	-1.8	-3.4	-1.4	0.0	-2.2	-1.0	-0.7	0.0	0.0	0.0	1.0	1.0
Net Exports (\$bn, '05)	-420	-408	-408	-407	-416	-407	-406	-404	-403	-404	-409	-412
Inventory Investment (\$bn, '05)	51	31	59	70	57	41	63	75	73	75	70	61
Industrial Production, Mfg	5.7	4.3	4.3	2.9	9.8	1.0	-0.8	3.0	3.0	4.0	4.5	4.5
INFLATION (% ch, yr/yr)												
Consumer Price Index (CPI)	1.6	3.1	2.2	2.2	2.8	1.9	1.7	2.3	2.2	2.5	2.3	1.8
Core CPI	1.0	1.7	2.1	1.6	2.2	2.3	2.0	1.9	1.8	1.5	1.5	1.5
Core PCE*	1.5	1.4	1.7	1.4	1.9	1.8	1.6	1.6	1.5	1.4	1.4	1.4
Unit Labor Costs	-1.1	1.9	0.8	0.7	0.2	0.9	0.8	1.1	0.6	0.8	0.8	0.7
LABOR MARKET												
Unemployment Rate (%)	9.6	8.9	8.1	7.8	8.2	8.2	8.1	7.9	7.9	7.9	7.8	7.7
FINANCIAL SECTOR												
Federal Funds** (%)	0.18	0.07	0.10	0.10	0.13	0.16	0.14	0.10	0.10	0.10	0.10	0.10
3-Month LIBOR (%)	0.30	0.56	0.25	0.25	0.47	0.47	0.39	0.25	0.25	0.25	0.25	0.25
Treasury Yield Curve** (%)												
2-Year Note	0.62	0.26	0.30	0.50	0.34	0.29	0.26	0.30	0.30	0.35	0.45	0.50
5-Year Note	1.93	0.89	0.75	1.20	1.02	0.71	0.67	0.75	0.85	0.90	1.00	1.20
10-Year Note	3.29	1.98	2.00	2.50	2.17	1.62	1.72	2.00	2.10	2.20	2.30	2.50
30-Year Bond	4.42	2.98	2.90	3.25	3.28	2.70	2.88	2.90	2.95	3.05	3.05	3.25
Profits*** (% chg, yr/yr)	23.9	8.9	7.4	5.7	9.2	4.4	8.0	8.0	5.0	5.0	5.0	7.5
Federal Budget (FY, \$ bn)	-1,294	-1,296	-1,125	-950	-	-	-	-	-	-	-	-
FOREIGN SECTOR												
Current Account (% of GDP)	-3.0	-3.1	-3.2	-3.4	-3.5	-3.0	-3.1	-3.2	-3.3	-3.4	-3.4	-3.5
Euro (\$/€)**	1.32	1.32	1.33	1.40	1.32	1.25	1.29	1.33	1.37	1.40	1.40	1.40
Yen (¥/\$)**	83	78	76	74	83	79	78	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

Source: GS Global ECS Research.

US Calendar

Focus for the Week Ahead

- Following a sharp decline in August, we expect a rebound in durable goods orders in September due to gains in both "core" and aircraft orders (October 25).
- The advance print for Q3 GDP is likely to reveal a bit more growth than in the first half of the year (October 26).

Economic Releases and Other Events

Date	Time (EST)	Indicator	Estimate		
			GS	Consensus	Last Report
Mon	Oct 22	13:30 Cleveland Fed Pres Pianalto spks at Chicago Fed's payments symposium; Chicago, IL			
Tue	Oct 23	10:00 Richmond Fed Survey (Oct)	n.a.	5	4
		12:00 Former Fed Chairman Greenspan spks at annual SIFMA mtg; NYC			
Wed	Oct 24	10:00 New Home Sales (Sep)	Flat	+3.2%	-0.3%
		10:00 FHFA House Price Index (Aug)	n.a.	+0.4%	+0.2%
		14:15 FOMC Meeting Results			
Thu	Oct 25	8:30 Durable Goods Orders (Sep)	+6.0%	+7.0%	-13.2%
		8:30 Initial Jobless Claims	n.a.	370,000	388,000
		8:30 Continuing Claims	n.a.	3,262,000	3,252,000
		10:00 Pending Home Sales (Sep)	n.a.	+2.0%	-2.6%
		11:00 Kansas City Fed Survey (Oct)	n.a.	5	2
Fri	Oct 26	8:30 Real GDP— Q3 Annualized (Advance)	+2.1%	+1.8%	+1.3%
		9:55 Reuters/U. Mich Consumer Sentiment—Final (Oct)	80.0	83.0	83.1

Disclosure Appendix

Reg AC

We, Jan Hatzius, Alec Phillips, Jari Stehn and Shuyan Wu, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

Disclosures

Global product; distributing entities

The Global Investment Research Division of Goldman Sachs produces and distributes research products for clients of Goldman Sachs on a global basis. Analysts based in Goldman Sachs offices around the world produce equity research on industries and companies, and research on macroeconomics, currencies, commodities and portfolio strategy. This research is disseminated in Australia by Goldman Sachs Australia Pty Ltd (ABN 21 006 797 897); in Brazil by Goldman Sachs do Brasil Corretora de Títulos e Valores Mobiliários S.A.; in Canada by Goldman, Sachs & Co. regarding Canadian equities and by Goldman, Sachs & Co. (all other research); in Hong Kong by Goldman Sachs (Asia) L.L.C.; in India by Goldman Sachs (India) Securities Private Ltd.; in Japan by Goldman Sachs Japan Co., Ltd.; in the Republic of Korea by Goldman Sachs (Asia) L.L.C., Seoul Branch; in New Zealand by Goldman Sachs New Zealand Limited; in Russia by OOO Goldman Sachs; in Singapore by Goldman Sachs (Singapore) Pte. (Company Number: 198602165W); and in the United States of America by Goldman, Sachs & Co. Goldman Sachs International has approved this research in connection with its distribution in the United Kingdom and European Union.

European Union: Goldman Sachs International, authorized and regulated by the Financial Services Authority, has approved this research in connection with its distribution in the European Union and United Kingdom; Goldman Sachs AG, regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht, may also distribute research in Germany.

General disclosures

This research is for our clients only. Other than disclosures relating to Goldman Sachs, this research is based on current public information that we consider reliable, but we do not represent it is accurate or complete, and it should not be relied on as such. We seek to update our research as appropriate, but various regulations may prevent us from doing so. Other than certain industry reports published on a periodic basis, the large majority of reports are published at irregular intervals as appropriate in the analyst's judgment.

Goldman Sachs conducts a global full-service, integrated investment banking, investment management, and brokerage business. We have investment banking and other business relationships with a substantial percentage of the companies covered by our Global Investment Research Division. Goldman, Sachs & Co., the United States broker dealer, is a member of SIPC (<http://www.sipc.org>).

Our salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies to our clients and our proprietary trading desks that reflect opinions that are contrary to the opinions expressed in this research. Our asset management area, our proprietary trading desks and investing businesses may make investment decisions that are inconsistent with the recommendations or views expressed in this research.

The analysts named in this report may have from time to time discussed with our clients, including Goldman Sachs salespersons and traders, or may discuss in this report, trading strategies that reference catalysts or events that may have a near-term impact on the market price of the equity securities discussed in this report, which impact may be directionally counter to the analysts' published price target expectations for such stocks. Any such trading strategies are distinct from and do not affect the analysts' fundamental equity rating for such stocks, which rating reflects a stock's return potential relative to its coverage group as described herein.

We and our affiliates, officers, directors, and employees, excluding equity and credit analysts, will from time to time have long or short positions in, act as principal in, and buy or sell, the securities or derivatives, if any, referred to in this research.

This research is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Clients should consider whether any advice or recommendation in this research is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. The price and value of investments referred to in this research and the income from them may fluctuate. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Fluctuations in exchange rates could have adverse effects on the value or price of, or income derived from, certain investments.

Certain transactions, including those involving futures, options, and other derivatives, give rise to substantial risk and are not suitable for all investors. Investors should review current options disclosure documents which are available from Goldman Sachs sales representatives or at <http://www.theocc.com/about/publications/character-risks.jsp>. Transaction costs may be significant in option strategies calling for multiple purchase and sales of options such as spreads. Supporting documentation will be supplied upon request.

In producing research reports, members of the Global Investment Research Division of Goldman Sachs Australia may attend site visits and other meetings hosted by the issuers the subject of its research reports. In some instances the costs of such site visits or meetings may be met in part or in whole by the issuers concerned if Goldman Sachs Australia considers it is appropriate and reasonable in the specific circumstances relating to the site visit or meeting.

All research reports are disseminated and available to all clients simultaneously through electronic publication to our internal client websites. Not all research content is redistributed to our clients or available to third-party aggregators, nor is Goldman Sachs responsible for the redistribution of our research by third party aggregators. For all research available on a particular stock, please contact your sales representative or go to <http://360.gs.com>.

Disclosure information is also available at <http://www.gs.com/research/hedge.html> or from Research Compliance, 200 West Street, New York, NY 10282.

© 2012 Goldman Sachs.

No part of this material may be (i) copied, photocopied or duplicated in any form by any means or (ii) redistributed without the prior written consent of The Goldman Sachs Group, Inc.

