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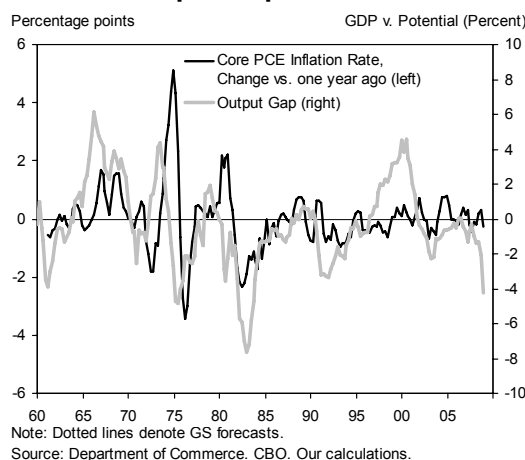
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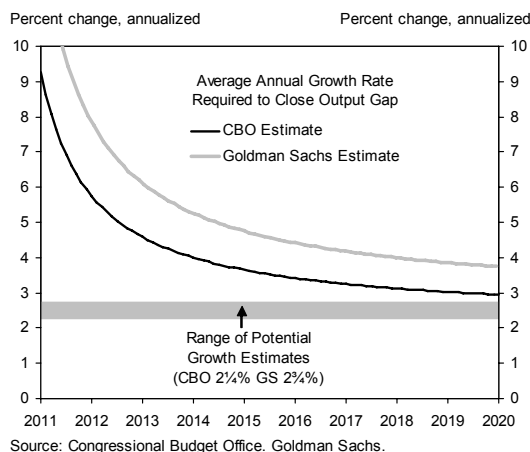
Hyperventilating About Hyperinflation

- A lot of people in the financial markets are hyperventilating about hyperinflation these days as the Federal Reserve commits what many view as the cardinal sin of central banking—monetizing government debt.
- As readers of our research know well, we see deflation as the main price-related risk facing the US economy in coming years. This reflects the emergence of the largest output gap in three-quarters of a century. Closing that gap will take years, providing the Fed with plenty of time to restore its balance sheet to a more traditional position.
- But what if consumers, businesses, and banks suddenly redeploy the trillions of dollars now sitting idle in reserve accounts at the Fed and in bank deposits, causing a classic case of “too much money chasing too few goods?” This is the hyperinflationary scenario that troubles many observers.
- Although this is highly unlikely in our view, the Fed has several ways to deal with it if it does occur. The main ones: (1) shelf plans to buy securities, (2) shut down liquidity and other short-term facilities, and (3) manage current security holdings by letting maturing issues run off, selling them, or using them to drain reserves via reverse repurchase agreements. The Fed could also lean harder on the Supplementary Financing Program (SFP), seek authority to issue its own debt and boost interest rates on both federal funds and bank reserves if it wanted to keep some of the balance-sheet expansion in place.
- A more legitimate concern, beyond the scope of the current analysis, is the possibility that large budget deficits will be allowed to persist even after the economy improves to the point that it can withstand fiscal restraint. However, the implications for inflation are still subject to the Fed’s long-term conduct of monetary policy, about which we have considerable confidence.

The Output Gap Drives Inflation



A High Bar to Closing the Gap



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I. Hyperventilating About Hyperinflation

An awful lot of people in the financial markets are hyperventilating about hyperinflation these days. Their fears are rooted in the Federal Open Market Committee's (FOMC's) decision to expand its balance sheet sharply by buying trillions of dollars' worth of Treasury securities, agency debt, and agency-sponsored mortgage-backed securities (MBS). In other words, the Fed is committing what many see as the cardinal sin of central banking: "printing money" to "monetize" the federal debt. With the Treasury borrowing hand over fist to finance its largest deficit since World War II, how can this not lead to a surge in inflation? Some expect this to happen within a year.

We emphatically disagree. The inflation hype glosses over the fact that the offending measures are being taken in response to a slump in economic activity that poses the largest risk of deflation in three-quarters of a century. Thus, while these policies clearly could lay the groundwork for a run-up in inflation down the road, such an outcome is hardly imminent. Given the huge amount of slack that now exists, the FOMC has oodles of time—not months or quarters, but years—to unwind the balance sheet expansion before excessive inflation becomes a genuine risk. Even in the highly unlikely event that the hyperinflationists' nightmare of too much money chasing too few goods suddenly takes hold, the Fed has many ways to accomplish this unwinding quickly.

Oodles of Time Before Inflation Threatens...

Regular readers of our research are well aware that we see deflation as the main risk facing the US economy in coming years insofar as the behavior of prices is concerned. It should thus come as no surprise that we assign virtually no probability to hyperinflation—a situation in which prices rise so rapidly that money becomes worthless. In fact, the term itself has suffered a significant loss of value; we suspect that most people who throw it around nowadays do not actually expect inflation to escalate from triple-digit rates on up, as it did in the Weimar Republic of Germany during the early 1920s or Zimbabwe in 2008 (though both examples do sometimes come up).

Instead, we think most "hyperinflationists" are mainly worried that inflation will rise well above the 2% level that Fed officials have indicated to be the upper end of their comfort zone—say to the upper single-digit territory that prevailed in the 1970s—and stay there for a significant period as a result of the sharp expansion now taking place in its balance sheet. Even this is an unrealistic outcome to expect much before the end of the next decade, in our view. If we're right, then the FOMC has oodles of time to unwind its balance-sheet expansion.

Our doubts about a surge in inflation are rooted in two observations, both of which command wide agreement among most economists and other observers:

1. The main driver of inflation is the degree of slack in the economy. This slack is usually expressed as the gap between real GDP and its potential level—the output the economy would produce if it were operating at full employment. As shown in Exhibit 1, changes in the year-to-year core (ex food and energy) rate of inflation tend to lag the output gap, as estimated by the Congressional Budget Office (CBO), by about a year. We focus on the core index because any episode of sustained inflation must involve a broad array of prices rather than just those of food and energy. The output gap model of inflation is the stuff of mainstream economics, though we recognize that it is not universally embraced. Hyperinflationists, in particular, appear to be working from a different model, which we take up in the section that follows.

2. The economy is verging on the most slack since the Great Depression. In its latest budget update, the CBO estimated that the output gap would average 7% of GDP in both 2009 and 2010. The agency went on to note: "The shortfall in the nation's output relative to its potential is comparable with what occurred during the recession of 1981 and 1982 and will persist for significantly longer—making the current recession the most severe since World War II."¹

Together, these two observations set a very high bar for the growth in real GDP that would be needed to generate an increase in inflation. This is illustrated by the dark line in Exhibit 2, which shows the growth rates required to close the output gap by a specific time, based on the CBO's estimates for the gap and for the potential growth rate (about 2¼%). For example, to close the gap within a year—*i.e.*, by year-end 2011—the economy would have to grow by the sum of the gap and the potential growth rate, or more than 9%. The CBO's expectation that the gap will close by roughly the middle of the next decade still assumes an average annual growth rate of 4% from 2011 through 2014, more than 1½ percentage points above their estimate of potential growth.

Many observers think the CBO's assumptions are too optimistic. We share this view, particularly about growth in 2010 (2.9% for CBO versus our 1.2%) and 2011 (4.0% for CBO). We have not developed a detailed forecast for 2011, but we do not see growth

¹ See *A Preliminary Analysis of the President's Budget and an Update of CBO's Budget and Economic Outlook*, Congressional Budget Office, March 2009.

Exhibit 1: The Output Gap Drives Inflation

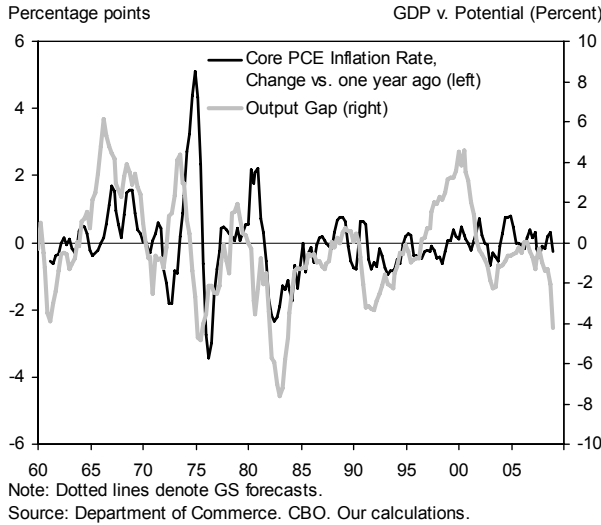
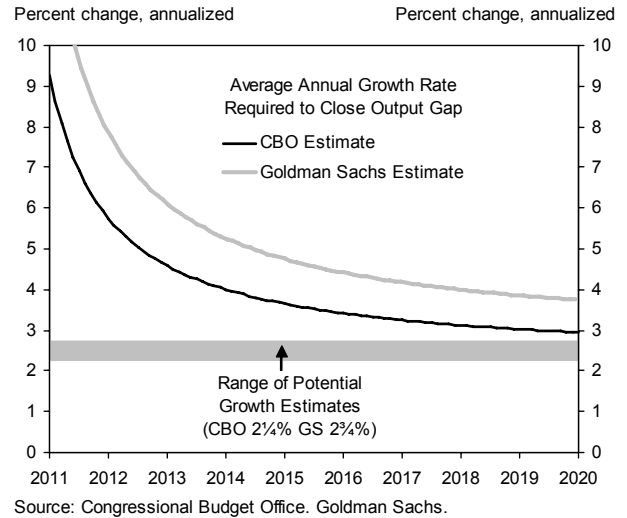


Exhibit 2: A High Bar to Closing the Gap



exceeding 2% before year-end 2010, at which point we think the output gap will slightly exceed 10% of GDP.² We also think the CBO has too pessimistic a view on potential growth. In 2006 we published an analysis of productivity trends that suggested a potential growth rate of close to 3%;³ however, in recognition of the likely adverse impact of the current recession on capital formation we have recently lowered this figure slightly to 2¾%.

Both differences with CBO’s figures raise the hurdle for the growth we think will be required to close the output gap, as shown by the light line in Exhibit 2. For example, we think real GDP would have to rise by an average of 4¾% per year from 2011 through 2015 to close the gap by the middle of the next decade. This is not impossible; in fact, it happened in the 1980s as illustrated below. However, it is not likely given the obstacles to strong cyclical growth that are apt to constrain the next recovery.⁴ Closing the gap by the end of the decade reduces this hurdle to 3¾%.

Lest these calculations seem unduly academic, the expansion of the 1980s provides a real-life example to support our view that inflation is not a near-term threat. In late 1982, the output gap hit a post-World War II peak of 7.6%. It took five years of 5% average annual growth to close this gap. During this period, core inflation remained subdued at about 4%—an unacceptably high figure by today’s standards but well below the 8%-10% range that prevailed prior to that recession, as shown in Exhibit 3. During the next three years, core inflation rose only slightly as real GDP remained close to its potential level.⁵

...Nor is Inflation Inevitable

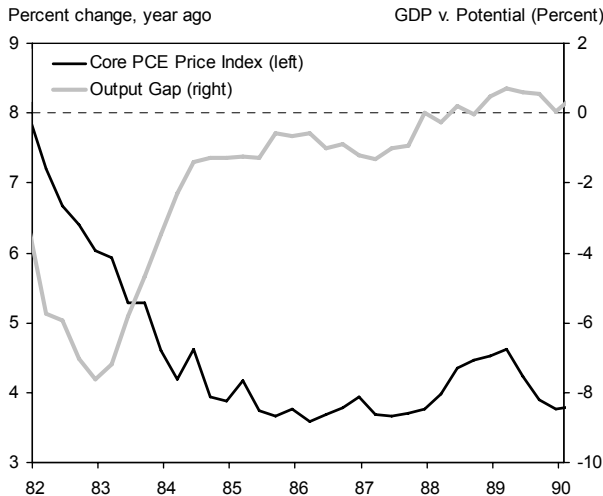
For some hyperinflationists, the foregoing analysis misses the point. This is because they see inflation in pseudo-monetarist terms: it results from too much money chasing too few goods. In this framework, hyperinflation is an extreme case in which the money supply grows explosively, usually due to monetization of government debt. Seen in this light, estimates that the economy is operating 7%-10% below capacity pale in comparison to the fact that the monetary base—currently \$1.7 trillion (trn)—has doubled since September, as shown in Exhibit 4. The prospect of another sharp increase, as the Fed buys up government debt, only adds to the inevitability of inflation.

² Our expectation of a 10% jobless rate by year-end 2010 implies an output gap of 10.5%, using CBO’s estimate of 4¾% for the Non-Accelerating Inflation Rate of Unemployment (NAIRU) and applying Okun’s Law, which says the output gap should be about twice the difference between these two figures.

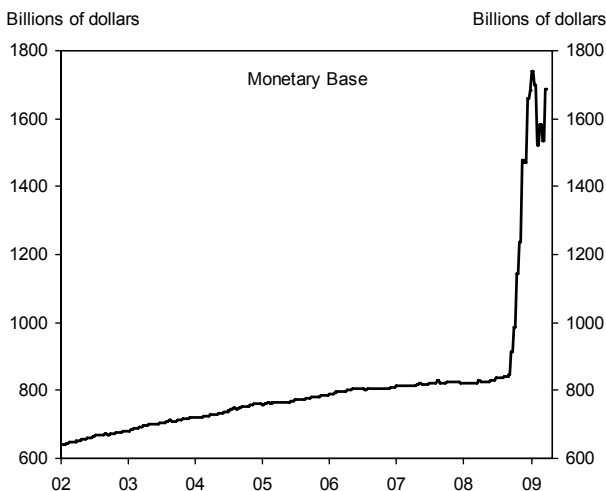
³ In mid-2006, we estimated that the annual growth trend in private, nonfarm productivity was at least 2½%, implying a potential growth rate of 3%. See Andrew Tilton, “The US Productivity Boom: Far From Finished,” *Global Economics Paper* No. 143, July 17, 2006. Since then, the behavior of the jobless rate has supported this finding, although as noted in the text we think the depth of this recession will probably stunt capital formation in coming years.

⁴ For a summary of these obstacles, see “Why the US Economy Needs Multiyear Fiscal Stimulus,” *US Daily Financial Market Comment*, December 22, 2008.

⁵ The 1980s episode addresses one potential criticism of our analysis, namely that it puts too much weight on the gap itself—specifically on closing it—and not enough on how quickly the gap changes. We have found evidence that both matter in our statistical work on inflation. Thus, while the unusually large gap that persisted in the mid-1980s should have kept pushing core inflation down, it stabilized within about a year after the end of the recession as the rapid shrinkage in the gap resulting from vigorous recovery offset this disinflationary tendency.

Exhibit 3: Inflation Stayed Low in the 1980s

Source: Department of Commerce. Congressional Budget Office.

Exhibit 4: A Doubling in the Monetary Base

Source: Federal Reserve Board.

In the near term, this view suffers from the fact that the banks who hold most of that monetary base have kept it on reserve at the Fed. As a result, broader measures of the money “supply” have risen much less sharply—about 9.7% since mid-September for M1 and 8.9% for M2.⁶ Moreover, the families and businesses holding this money seem to be doing so largely because it is safer than other types of assets rather than to finance the purchase of goods or services. It is because of this investment motive for holding money that its fluctuations are only loosely correlated to core inflation, as shown in Exhibit 5. In

⁶ The term “money supply” is misleading when applied to M1 and M2 because it implies that the Fed has control over the quantity outstanding when in fact this is also affected by the terms banks offer on deposits and the public’s preferences for components of the monetary aggregates versus other assets. However, we use it because it is the conventional terminology.

short, collapses in both the velocity of money (the ratio of GDP to M1 or M2) and the money multiplier (the ratio of M1 or M2 to the monetary base) have short-circuited inflation, at least for the time being.

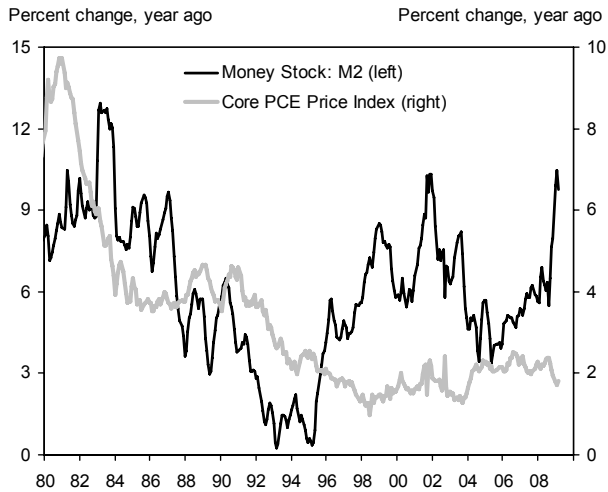
But this could change at any time according to the hyperinflationists. As the economy starts to recover, households and businesses will regain confidence and spend those funds that now sit idly on deposit. If some choose to reinvest them in other assets, this will just transfer the money to someone else; ultimately it will get spent on goods and services. Likewise, the banks that now hold idle reserves will start lending this money out, thereby expanding their balance sheets and fueling further increases in M1 and M2. The Fed, having printed all that money, will be powerless to stop this orgy of lending and spending.

Or will it? While the preceding section presents the more likely case, in which the Fed has lots of time to unwind its balance sheet, this scenario of sudden revivals in velocity and the money multiplier puts a premium on being nimble. However, the Fed has plenty of ways to manage such a situation, many of which Chairman Bernanke noted in a recent speech.⁷

1. Unwinding its liquidity and other short-term facilities. This option, which we fondly call the “Fed goes home” option, is the most powerful of the lot. As of April 1, the Fed held \$723 billion (bn), or 35%, of its assets in the Term Auction Facility (TAF), the Commercial Paper Funding Facility (CPFF), and the Asset-Backed Commercial Paper Facility (AMLF). All of these assets have maturities of 90 days or less. Thus, by midyear the Fed could reverse about two-thirds of the \$1.1trn balance-sheet expansion that has occurred thus far simply by shutting down these three programs, the usage of which would fade anyway if the economy were to revive along the lines suggested above. If the Fed also sent its staff home for a well-deserved break and stopped responding to requests for more liquidity, most of the rest of the expansion would be reversed. In this case, balances at the discount window (\$58bn), the Primary Dealer Credit Facility (\$25bn), and in swap lines to foreign central banks (\$309bn) would also disappear, though the latter might still be needed if foreign banks continued to have trouble getting dollar financing. Of course, the Fed could unwind these facilities more gradually by making their terms less attractive.

The key to understanding how this solves the “too much money chasing too few goods” problem is to see that unwinding these facilities reduces bank reserves

⁷ See Ben S. Bernanke, “The Federal Reserve’s Balance Sheet,” speech delivered to the Richmond Fed’s 2009 Credit Markets Symposium, Charlotte, North Carolina, April 3, 2009.

Exhibit 5: Money and Inflation—A Loose Link

Source: Department of Commerce. Federal Reserve Board.

by an equivalent amount. Put differently, the Fed “unprints” much of the monetary base that has been “printed” in recent months to finance not just government borrowing but the creation and expansion of these facilities. The same is true, in various ways, for each of the choices that follow.

2. Managing the size of System Open Market Account (SOMA). The SOMA is where the Fed holds all of the Treasury and agency securities (including agency MBS) that it has acquired for its own portfolio. This is where the action will be in coming months, as the Fed executes its plan to accumulate \$1¼trn in such paper.⁸ So far, the Fed has bought about \$300bn, mostly in MBS, thereby restoring the SOMA to about the level (\$783bn) that prevailed prior to the introduction of the TAF in December 2007. (To sterilize the effects of the TAF and other facilities that followed, the Fed allowed the SOMA to run down to about \$480bn by mid-2008.) Ultimately, the SOMA is headed to about \$2¼trn given the Fed’s announced plans.

While huge, this can also be managed if banks and consumers suddenly redeploy idle balances in hot pursuit of (as yet unproduced) goods and services. First and foremost, the Fed can shelve or stretch out its plans, which would no longer be needed in such a revitalized economy. It can also let maturing assets run off. By our reckoning, about \$43bn in the SOMA will mature by June 30 and more than \$110bn will mature by this time next year. These are not large numbers in comparison to the \$2¼trn objective, but every bit helps. Finally, the Fed can sell some of these securities. Although some might worry about

⁸ This includes \$300bn in Treasuries, \$200bn in agencies, and \$1.25trn in agency MBS, of which \$1.15trn was announced on March 18.

capital losses on such sales, Fed officials can pick and choose which securities to sell. Even if it sustains losses, its net interest margin will still be substantial.⁹

3. Conducting reverse repurchase agreements. In his speech, Chairman Bernanke noted that the Fed could conduct reverse repurchase agreements using SOMA assets to drain reserves. Like the runoff of maturing assets, this option might be limited by the Street’s ability to absorb collateral. However, it is clearly on the list—even if we haven’t seen it happen in the last couple of years.

4. Leaning harder on the Supplemental Financing Program (SFP). This is an alternative way to drain reserves, in which the Treasury issues special cash management bills and holds the proceeds on deposit at the Fed.¹⁰ The SFP currently has about \$200bn outstanding, but reached almost \$560bn at its zenith in November. The main constraint on this option is the room the Treasury has under the statutory debt ceiling to borrow for this and other purposes.

5. Seeking authority to issue its own debt. Several months ago Fed officials floated the idea of seeking the authority to issue their own debt. This would require legislation, so it is not yet a viable option. If granted—presumably with a ceiling of its own—it could be a useful tool for managing bank reserves.

6. Raising interest rates. As Chairman Bernanke noted, the authority to pay interest on excess reserves allows the Fed to raise short-term rates—and thereby resist a sudden surge in economic activity if it risks a surge in inflation as well—while still maintaining an outsized balance sheet if that proves to be necessary to accomplish other objectives. By raising the rate on reserves in tandem, it reduces banks’ incentives to lend federal funds at rates well below the Fed’s target.

In short, the Fed has quite a few options—some more powerful and available than others—to manage a sudden shift away from the risk aversion that has kept trillions of dollars in bank reserves and on deposit at banks. They are clearly aware of those options and prepared to use them should such a situation develop. We therefore think it is time to stop hyperventilating about hyperinflation. It not only takes your breath away, but it might be bad for your financial health.

Ed McKelvey

⁹ For more on this issue, see “Fed Capital Losses: How Big a Worry?” *US Daily Financial Market Comment*, April 8, 2009.

¹⁰ For an explanation of how this works, see “The Week that Was—Is Sunday the New Monday?” *US Economics Analyst*, No. 08/38. September 19, 2008.

II. Forecast Highlights

1. Real GDP is falling rapidly, but we expect it to stabilize by about mid-2009. The main reason for the stabilization is the recently enacted fiscal stimulus, which should help many households continue to boost saving without cutting real spending much further. We think this stimulus will add about 3 percentage points to the annualized change in real GDP (relative to a baseline of continued contraction) during the middle two quarters of 2009. The Fed's decision to expand greatly its purchases of mortgage-related securities and to buy longer-term Treasury securities should also help reduce interest costs for US households and businesses. We expect residential investment to level out after a long slide that has cut this industry's output in half.

2. However, the timing of the bottom in real GDP is highly uncertain, and recovery, when it does begin, will be anemic. Persistently high levels of claims for unemployment insurance and the heavy job losses in the payroll employment report underscore the strength of the negative multiplier, which could short-circuit any upturn in consumer spending; the other downside risk is that we may underestimate the degree to which consumers will cut back spending to achieve saving objectives. As for recovery, the private-sector forces that have usually driven strong cyclical rebounds—vigorous housing recovery, consumer spending on durable goods, rapid rehiring, and the inventory cycle—all face significant challenges in the current environment. Without them, the economy will have difficulty sustaining growth, especially since we think the fiscal stimulus now in place will fade out during 2010.

3. As a result, the unemployment rate should reach 10% by year-end 2010. We expect the same “jobless recovery” pattern that occurred in the two most recent business cycles, when companies held off hiring full-time workers until increases in demand were well established. This behavior undercuts recovery, greatly lengthening the lag between troughs in real GDP and peaks in unemployment.

4. Deflation is a much bigger threat than inflation, at least for the next few years. Although sharply expansionary fiscal and monetary policies have caused many market participants to worry about inflation, these concerns miss the point that the policies have been undertaken to combat a large and growing gap between actual and potential output. Under any reasonable economic scenario, the output gap will be huge—8% to 10% of GDP or more—and thus require years of above-trend growth to eliminate. Given this prospect, we expect year-to-year inflation in the core

index of consumer prices—now about 1½%—to cross through zero by late 2010, if not before.

5. Monetary tightening is highly unlikely before the end of 2010. Given our inflation outlook, we think most members of the Federal Open Market Committee (FOMC) will look for three conditions before raising the federal funds rate from its current 0-25 basis point range: (a) job market stability, defined as confidence that the unemployment rate has peaked or will do so shortly, (b) housing market stability, defined as a reduction in unoccupied units large enough to reduce the pace of decline in home prices, and (c) financial market stability, defined as “you know it when you see it.” The FOMC's stronger commitment to low interest rates in its March 18 statement reinforces our view that increases in short-term interest rates are a long distance away.

6. The yield curve remains steep. The FOMC's decision to buy longer-term Treasury securities has thus far mainly reversed recent increases in yields on these instruments that we had not anticipated. Although we do not think inflation worries are justified, they will undoubtedly persist in financial markets and even be reinforced whenever commodity prices jump in response to global recovery or expectations of it. This plus an extraordinarily heavy volume of Treasury issuance is apt to keep the yield curve steep even as Fed officials keep short-term rates extremely low and redouble their efforts to reduce longer-term private borrowing rates as well.

Trade Adds Upside Risk to Q1 GDP Forecast

The US trade balance narrowed to -\$26.0bn in February, a level not seen since late 1999. This was due to a stabilization of exports, which had been falling sharply, combined with further declines in imports. The timing of Chinese New Year probably helped to accentuate this pattern. On the surface, this implies substantial upside risk to our forecast that GDP fell at a 7% annual rate in the first quarter. However, that risk is somewhat offset by a large decline in wholesale inventories during February, down by 1.5%, as the lower imports could just be showing up in smaller inventories at wholesalers. This would mute the implications for domestic production—which is, after all, what GDP measures. With data on retail sales and inventories due for release next Tuesday, we are holding off on specific changes to our first-quarter estimate. However, at this point the risks clearly tilt to the upside of our -7% figure, though the decline in the first quarter is still likely to be sharp.

THE US ECONOMIC AND FINANCIAL OUTLOOK

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

				2008		2009				2010	
	2008	2009	2010	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
OUTPUT AND SPENDING											
Real GDP				-0.5	-6.3	-7.0	-3.0	1.0	1.0	1.5	1.5
Year-to-year change	1.1	-3.3	1.2	0.7	-0.8	-2.8	-4.2	-3.9	-2.1	0.1	1.2
Consumer Expenditure	0.2	-0.6	1.0	-3.8	-4.3	1.3	1.0	1.0	0.5	1.0	1.0
Residential Fixed Investment	-20.8	-21.7	-0.1	-16.0	-22.8	-40.0	-15.0	-5.0	0.0	2.5	2.5
Business Fixed Investment	1.6	-18.0	-8.5	-1.7	-21.7	-28.5	-20.0	-15.0	-10.0	-7.5	-5.0
Industrial Production, Mfg	-3.2	-14.7	-3.2	-9.2	-17.4	-25.0	-12.5	-6.0	-3.5	-2.0	-1.5
INFLATION											
Consumer Price Index				6.2	-8.3	-2.0	1.8	1.0	0.6	0.4	0.2
Year-to-year change	3.8	-0.6	0.4	5.2	1.5	-0.1	-0.7	-2.0	0.3	1.0	0.6
Core Indexes (% chg, yr/yr)											
CPI	2.3	1.3	0.4	2.5	2.0	1.7	1.5	1.0	1.0	0.8	0.6
PCE*	2.2	1.0	0.2	2.3	1.9	1.5	1.2	0.8	0.7	0.6	0.4
Unit Labor Costs (% chg, yr/yr)	0.9	1.6	0.4	1.6	1.8	1.7	2.5	1.7	0.5	0.5	0.5
LABOR MARKET											
Unemployment Rate (%)	5.8	8.9	9.9	6.0	6.9	8.1	8.8	9.2	9.5	9.7	9.8
FINANCIAL SECTOR											
Federal Funds** (%)	0.16	0.13	0.13	1.81	0.16	0.18	0.13	0.13	0.13	0.13	0.13
3-Month LIBOR (%)	1.83	1.00	1.00	3.12	1.83	1.27	1.15	1.00	1.00	1.00	1.00
Treasury Yield Curve** (%)											
2-Year Note	0.82	0.75	0.75	2.08	0.82	0.93	0.75	0.75	0.75	0.75	0.75
5-Year Note	1.52	2.00	2.60	2.88	1.52	1.82	1.80	1.90	2.00	2.10	2.30
10-Year Note	2.42	3.00	3.50	3.69	2.42	2.82	2.70	2.90	3.00	3.00	3.20
Profits*** (% chg, yr/yr)	-6.9	-25.1	-0.1	-7.9	-15.0	-25.0	-30.0	-30.0	-14.0	-7.5	-2.5
Federal Budget (FY, \$ bn)	-455	-1,860	-1,500	-	-	-	-	-	-	-	-
FOREIGN SECTOR											
Current Account (% of GDP)	-4.7	-3.2	-3.0	-5.0	-3.7	-3.3	-3.3	-3.3	-3.2	-3.1	-3.1
Exchange Rates											
Euro (\$/€)**	1.35	1.43	1.45	1.44	1.35	1.31	1.30	1.40	1.43	1.45	1.45
Yen (¥/\$)**	91	100	100	107	91	98	105	103	100	100	100

* 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

- Consumer prices likely fell slightly in March. Though gasoline prices rose slightly, they did not manage to match their normal seasonal increase so the report should show a decrease in seasonally adjusted prices. Core is somewhat sticky; we see an increase of 0.17%. Watch to see if the declines in the OER and rent indexes persist, consistent with anecdotal reports (April 15).
- Although motor vehicle sales were up 7.8% in March, retailers reported relatively poor sales results. On balance, we estimate that total sales were unchanged, with core components down on the month due in part to weaker than seasonal gasoline price changes (April 14).
- We see housing starts giving back some of their huge February increase. This was driven by a leap in multi-family housing starts, which tend to be volatile and which we expect to moderate (April 16).
- Next weekend features two university conferences on policy issues—one at Vanderbilt on “Financial Markets and Financial Policy” and the other at Princeton on “Obama and the Economy: An Early Report Card.” Several Fed officials will speak at the Vanderbilt conference, including Vice Chairman Donald Kohn, New York President William Dudley, Minneapolis President Gary Stern, Atlanta President Lockhart, and former Chairman (and New York President) Paul Volcker (April 18).

Economic Releases and Other Events

Date	Time (EST)	Indicator	Estimate		
			GS	Consensus	Last Report
Tue	Apr 14	8:30 Producer Price Index (Mar)	-0.3%	Flat	+0.1%
		Ex Food & Energy	Flat	+0.1%	+0.2%
	8:30 Retail Sales (Mar)	Flat	+0.3%	-0.1%	
	Ex Autos	-0.5%	+0.1%	+0.7%	
	10:00 Business Inventories (Feb)	n.a.	-1.1%	-1.1%	
	10:30 Chicago Fed Pres Evans spks on risk mgmt at Fed conf				
	16:45 Minn Fed Pres Stern spks at Chicago Fed Conference				
Wed	Apr 15	8:30 Consumer Price Index (Mar)	-0.04%	+0.1%	+0.4%
		Ex Food & Energy	+0.17%	+0.1%	+0.2%
		NSA Index	213.013	n.a.	212.193
	8:30 Empire Manufacturing Survey (Apr)	n.a.	-35.00	-38.23	
	9:00 Treasury TICS Data (Feb)	n.a.	n.a.	-\$43.0bn	
	9:15 Industrial Production (Mar)	-1.0%	-0.9%	-1.5%	
	9:15 Capacity Utilization (Mar)	69.5%	69.7%	70.2%	
	13:00 Homebuilders' Survey (Apr)	n.a.	10	9	
	14:00 Fed “Beige Book”				
Thu	Apr 16	8:30 Housing Starts (Mar)	-5.0%	-6.0%	+22.2%
		8:30 Initial Jobless Claims	n.a.	665,000	654,000
		10:00 Philadelphia Fed Survey (Apr)	n.a.	-32.0	-35.0
		13:00 Atlanta Fed Pres Lockhart spks on financial crisis; NYC			
		20:00 SF Fed Pres Yellen spks on financial crisis at NYC conf			
Fri	Apr 17	8:30 KC Fed Pres Hoenig spks at Fed conf; Wash DC			
		10:00 U. Mich Consumer Sentiment—Preliminary (Apr)	n.a.	58.5	57.3
		12:00 Bernanke spks at Fed community affairs conf; Wash DC			
Sat	Apr 18	Fed officials spk at Vanderbilt University Conf; Nashville			