

US ECONOMICS WEEKLY

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Editors: Paul Ashworth and Paul Dales

A new take on the Fed and the housing boom

- The debate over whether or not the Fed stoked the housing boom by keeping rates too low between 2002 and 2006 heated up last week, with the academic John Taylor (of "Taylor Rule" fame) criticising Fed Chairman Ben Bernanke's analysis that it did not. Both have used different versions of the Taylor Rule to show what they think interest rates should have been during this period.
- We take a slightly different tack and suggest what interest rates would have been if the Fed had placed more weight on developments in the housing market. **Our results show that interest rates would have been considerably higher. Interestingly, the same analysis applied to today's situation suggests that monetary policy may need to be even looser than it already is.** (See pages 2-4.)
- This week's data releases are unlikely to have much bearing on the Fed's thinking when it meets next week. December's producer prices figures (out on Wednesday) will attract less attention than normal given that the consumer price numbers for the same month were released last week. Meanwhile, December's housing starts data (also Wednesday) are likely to reveal that homebuilding activity remains subdued.

Data Previews (page 5)

NAHB index/Housing starts (Tue. 19th/Wed. 20th Jan.) – *Little incentive to break new ground*

Producer prices (Wed. 20th Jan.) – *Temporary surge in inflation at the factory gate*

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A new take on the Fed and the housing boom

The blame game hit new heights last week, with Congress ripping into Wall Street bankers for their role in the financial crisis and President Obama proposing a new "bank tax". At the same time, the spat between Fed Chairman Ben Bernanke and the academic John Taylor (of "Taylor Rule" fame) intensified.

Taylor believes that the Fed set interest rates too low between 2002 and 2006, implicitly blaming it for contributing to the housing boom that so spectacularly turned to bust three years ago. Taylor is supported by 42 out of the 54 economists recently surveyed by the Wall Street Journal. Bernanke believes otherwise. In a recent speech to the American Economic Association he used an adjusted Taylor Rule to defend the Fed, effectively using Taylor's own weapons against him. So did low interest rates cause the housing bubble, and what are the lessons for today?

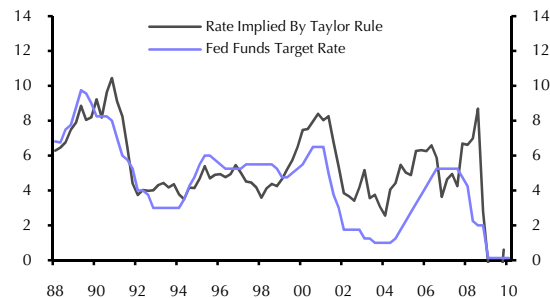
What should interest rates have been?

The Taylor Rule attempts to gauge what the interest rate should be based on the deviation of inflation from a desired rate and the deviation of GDP growth from the economy's potential rate. In its earliest form, the Taylor Rule assumed that policymakers place equal importance on inflation and economic growth.

Chart 1 compares the results of this basic Taylor Rule against the actual interest rate set by the Fed. By and large, the Chart shows that the Taylor Rule appears to do a fairly good job of capturing broad trends in interest rates. Of course, the simplicity of the rule means that it is not a perfect representation.

But as Taylor himself points out, the gap between the interest rate implied by the Taylor Rule and the actual interest rate between 2002 and 2006 was particularly large. In other words, Taylor suggests that rates were set too low given the inflation and activity environment of the time. The implication is that unnecessarily loose monetary policy stoked the housing market bubble.

CHART 1: ACTUAL INTEREST RATE & BASIC TAYLOR RULE (%)

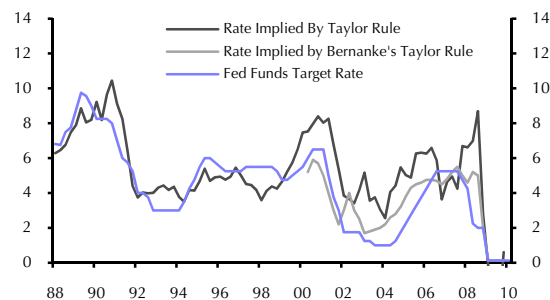


Source – Thomson Datastream & Capital Economics

However, Bernanke quite rightly points out that the results of the Taylor Rule depend on the relative importance that is ascribed to both inflation and activity as well as how they are measured. He suggests that in the past the Fed has tended to place more weight on fluctuations in activity rather than inflation. Similarly, he believes that because monetary policy influences inflation and activity with a lag, it would make more sense to use forecasts of inflation rather than actual outturns.

In his speech to the American Economic Association earlier this month, Bernanke published the results of a Taylor Rule incorporating these two adjustments. It suggested that the Fed was more or less justified in setting interest rates so low between 2002 and 2006. (See Chart 2.) He concluded that "only a small proportion of the increase in house prices can be attributed to the stance of US monetary policy". In other words, the Fed's actions did not create the housing bubble.

CHART 2: INTEREST RATE & BERNANKE'S TAYLOR RULE (%)



Source s– Thomson Datastream & Federal Reserve

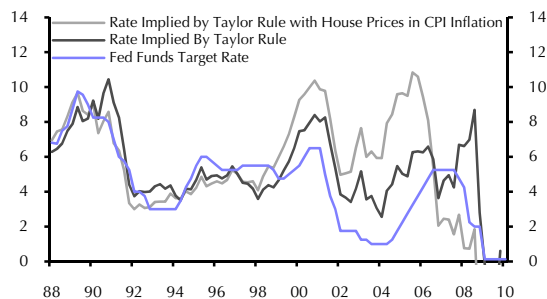
What *would* interest rates have been?

Another way to look at it is to consider not what rates should have been, but what they *would* have been if the Fed had placed more weight, or indeed any, on housing. We can do this by adjusting the basic Taylor Rule in two alternative ways.

The first adjustment incorporates house price inflation in a more specific manner. The Taylor Rules we have looked at so far are based on headline CPI inflation. CPI inflation includes a component called "owners' equivalent rent", which attempts to measure the changing cost of housing via imputed rents. Imputed rents, however, failed to capture the full extent of the run-up in house prices. Accordingly, replacing the owners' equivalent rent component with the Case-Shiller national house price index provides a measure of CPI inflation that more fully captures the housing market boom.

The results of including this measure of inflation, rather than headline CPI inflation, in the basic Taylor Rule are shown in Chart 3. Had the Fed placed more weight on the inflationary impact of the housing market boom between 2002 and 2006, interest rates would have been higher than Taylor's basic rule suggests. Incidentally, it also suggests that after the housing bubble burst, interest rates should have been cut much earlier.

CHART 3: ACTUAL INTEREST RATE & TAYLOR RULE ADJUSTED FOR HOUSE PRICE INFLATION (%)

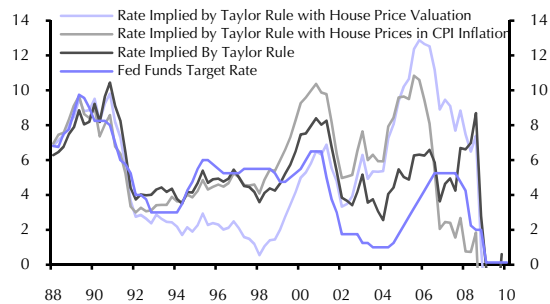


Source – Thomson Datastream & Capital Economics

Our second adjustment goes one step further. It adds a whole new housing term to the basic Taylor Rule. This suggests that, as well as trends in inflation and activity, interest rates also depend on

the deviation of house prices from fair value or the "house price gap". We judge fair value to be the historical average of the ratio of Case-Shiller house prices to disposable income per capita. When house prices are above this proxy of fair value, interest rates should be raised and vice versa. We assume that policymakers are twice as concerned about both inflation and activity than they are about housing valuations. Based on this adjusted Taylor Rule, between 2002 and 2006 interest rates would have been even higher for longer. (See Chart 4.)

CHART 4: ACTUAL INTEREST RATE & TAYLOR RULE INCLUDING HOUSE PRICE VALUATION TERM (%)



Source – Thomson Datastream & Capital Economics

The implication of our housing-adjusted Taylor Rules is that the Fed did indeed contribute to the housing bubble. **The rules suggest that if it wanted to curtail the run-up in house prices, the Fed would have kept interest rates higher for longer.**

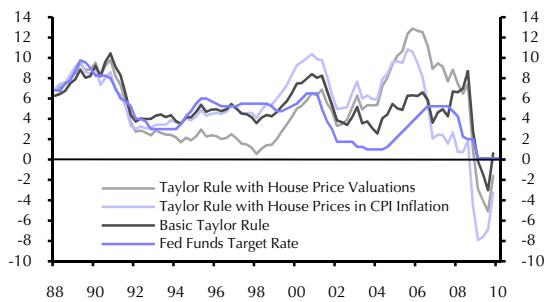
That said, there are two reasons why we are reluctant to condemn the Fed. First, the counterfactual may have been pretty nasty. It is possible that if interest rates were significantly higher during this period, the economy would have slipped back into recession resulting in a deflationary spiral that would have been hard to break. Second, many other factors contributed to the housing boom, not least incredibly lax lending standards. **On their own, much higher interest rates may not have prevented the boom, at least not without wrecking the wider economy.**

Lessons for today

In all the Charts presented above we have stopped the vertical axis at zero based on the assumption

that interest rates cannot turn negative. It is quite revealing, however, to allow the results of our housing-adjusted Taylor Rules to fall below the zero-bound. Chart 5 does this and suggests that if the Fed were to place more weight on the housing market in its current policy decisions, policy would need to be more accommodative than the basic Taylor Rule currently suggests. This might be interpreted to mean that the Fed should extend its asset-purchasing programme beyond March.

CHART 5: ACTUAL INTEREST RATE & VARIOUS TAYLOR RULES
(%)



Source – Thomson Datastream & Capital Economics

Of course, whether or not the Fed *should* place more weight on the housing market is the big question, and one that we will need to return to on another occasion to deal with sufficiently. **For now, it is interesting that the Fed itself appears to have become a little more open to the idea of putting more weight on asset prices.** Back in August 1999, when he was a professor at Princeton, Bernanke said "policy should not respond to changes in asset prices, except insofar as they signal changes in expected inflation". Just a few weeks ago, however, he appeared to change tack, stating "we must remain open to using monetary policy as a supplementary tool for addressing those risks [financial risks caused by asset price bubbles]".

Overall, even if Bernanke believes that the Fed was not the main cause of the housing boom, it still appears as though he is willing to learn from the events of the last decade.

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Data Preview – NAHB Index & Housing Starts (Jan./Dec.) 13.00/08.30 19th/20th Jan.

Forecasts	Previous	Median	Capital Economics
NAHB Index	16	17	17
Housing Starts (number, annualised)	574,000	575,000	585,000

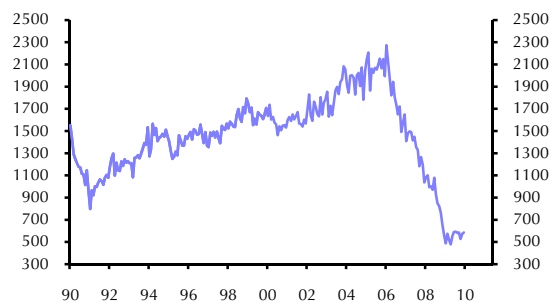
Little incentive to break new ground

The still high level of excess inventory suggests that housing starts are unlikely to increase significantly any time soon. Indeed, the modest upward trend seen six months ago has faded, with housing starts now back below the level seen a few months ago. What's more, starts remain a whopping 75% below the levels seen at the peak of the housing bubble. (See Chart 1.) At just 16 in December, the forward-looking NAHB index suggests that homebuilding will remain subdued in the coming months too. This index may nudge up to 17 in January, but that would not be anything to get excited about.

That said, the surge in demand from the recently extended and expanded tax credit may prompt some increase in the building of smaller homes that

are in relatively short supply. We have pencilled in a modest increase in housing starts from 574,000 in November to around 585,000 in December.

CHART 1: HOUSING STARTS (000s, ANNUALISED)



Source – Thomson Datastream

Data Preview – Producer Prices (Dec.)

08.30 Wed. 20th Jan.

Forecasts	Previous	Median	Capital Economics
Producer prices	+1.8%(+2.4%)	0.0%(+4.4%)	0.0%(+4.5%)
Core producer prices	+0.5%(+1.2%)	+0.1%(+1.0%)	+0.1%(+1.0%)

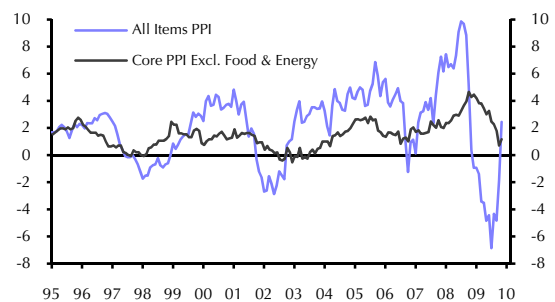
Temporary surge in inflation at the factory gate

Even if we are right and producer prices were unchanged in December, unfavourable base effects linked to the drop in oil prices in late 2008 mean that the annual inflation rate will nevertheless jump to more than 4%. A few months earlier, the inflation rate was deep in negative territory. (See Chart 2.)

Putting aside the wild swings in energy prices, core producer price inflation has been on a sharp downward trend, falling to around 1%. We have pencilled in another modest 0.1% m/m increase in December, largely due to an expected drop back in light truck prices. The moderation in core producer price inflation should start to feed through into final consumer prices this year, which is another reason

for believing that the Fed will take its time before tightening policy.

CHART 2: PRODUCER PRICE INFLATION (%)



Source – Thomson Datastream

Latest Data & Main Forecasts

LATEST US ECONOMIC INDICATORS

Monthly Indicators %m/m(%y/y) unless stated	Oct	Nov	Dec	Jan
Consumer Prices	+0.3%(-0.2%)	+0.4%(+1.8%)	+0.1%(+2.7%)	-
Core Consumer Prices (Excluding Food & Energy)	+0.2%(+1.7%)	0.0%(+1.7%)	+0.1%(+1.8%)	-
Core PCE Deflator (Excluding Food & Energy)	+0.2%(+1.4%)	0.0(+1.4%)	-	-
Producer Prices	+0.3%(-1.9%)	+1.8%(+2.4%)	-	-
Change in Non-Farm Payrolls (000s)	-127,000	+4,000	-85,000	-
Unemployment Rate (%)	10.2%	10.0%	10.0%	-
Average Hourly Earnings	+0.3%(+2.5%)	+0.2%(+2.3%)	+0.2%(+2.2%)	-
ISM Manufacturing Index	55.7	53.6	55.9	-
Industrial Production	+0.2%(-6.7%)	+0.6%(-4.9%)	+0.6%(-2.0%)	-
Retail Sales	+1.2%(-2.0%)	+1.8%(+2.5%)	-0.3%(+5.4%)	-
Core Retail Sales (Excluding Autos)	+0.0%(-2.8%)	+1.9%(+2.0%)	-0.2%(5.2%)	-
Uni. of Michigan Consumer Confidence Index	70.6	67.4	72.5	72.8
Trade Balance (\$bn)	-33.2	-36.4	-	-
Quarterly Indicators %q/q ann(%y/y) unless stated	Q4 2008	Q1 2009	Q2 2009	Q3 2009
GDP	-5.4%	-6.4%	-0.7%	+2.2%
Consumption	-3.1%	+0.6%	-0.9%	+2.8%
Productivity, Non-Farm	+0.8%	+0.3%	+6.9%	+8.1%
Current Account, (\$bn, as a % of GDP)	-184.2(-4.3%)	-154.9(-2.9%)	-98.0(-2.8%)	-108.0(-3.0%)
House Prices (Case-Shiller, s.a.)	-5.9%(-18.3%)	-6.7%(-19.0%)	+1.8%(-14.7%)	+1.9%(-9.0%)

LATEST MARKET DATA*

Instrument/rate		1 mth ago	1 week ago	Latest*	Instrument/rate	1 mth ago	1 week ago	Latest*	
Official Rates	US	0-0.25	0-0.25	0-0.25	Global Yields	Euro 10yr	3.59	3.83	3.67
	ECB	1.00	1.00	1.00		Japan 10yr	3.59	3.83	3.67
	Japan	0.10	0.10	0.10		Canada 10yr	3.41	3.60	3.51
	Canada	0.25	0.25	0.25		Equity Indices	S&P 500	1108	1145
3mth Euro\$	Jun 2010	0.67	0.49	0.43	NASDAQ	2202	2317	2312	
	End 2010	1.35	1.22	1.09	DJIA	10452	10618	10682	
	End 2011	2.69	2.75	2.54	Currencies	\$/€	1.45	1.44	1.44
Treasury Yields	2yr	0.85	0.98	0.88	¥/\$	89.6	92.7	91.0	
	10yr	3.59	3.83	3.67	\$ Broad TWI	101.8	102.4	101.6	
Inflation-indexed	10yr	1.31	1.35	1.32	Oil Price (\$pb)	West Texas	70.7	82.8	78.6
Corporate Bonds (BAA)	10yr	6.40	6.32	6.30	Gold (\$/oz)		1125	1138	1134












*Latest as at 09.40 EDT 15th Jan. 2010

MAIN ECONOMIC & MARKET FORECASTS

%q/q ann. (%y/y) unless stated	Q3 2009	Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010	2009	2010	2011
GDP	+2.2	+5.4	+3.0	+3.0	+2.3	+2.2	-2.4	+3.0	+1.5
CPI Inflation	(-1.6)	(+1.5)	(+2.4)	(+2.2)	(+1.6)	(+1.0)	(-0.3)	(+1.7)	(+0.9)
Core CPI Inflation	(+1.5)	(+1.7)	(+1.6)	(+1.3)	(+1.2)	(+1.0)	(+1.7)	(+1.1)	(+0.9)
Unemployment Rate (%), Period Ave.	9.6	10.0	10.4	10.2	10.1	10.0	9.3	10.2	9.9
Fed Funds Rate, End Period (%)	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125
10 Year Treasury Yield, End Period (%)	3.21	3.84	3.50	3.25	3.00	3.00	3.84	3.00	3.00
S&P 500, End Period	1057	1115	1150	1150	1075	1000	1115	1000	950
\$/€, End Period	1.45	1.43	1.45	1.45	1.35	1.30	1.43	1.30	1.30
¥/\$, End Period	90	93	90	90	95	100	93	100	110

Economic Diary & Forecasts

UNITED STATES

Date	Country	Release/Indicator/Event	Time		Previous*	Median*	CE Forecast*
			EST	(GMT)			
Mon 18 th	 US	Martin Luther King Jr Day - Markets Closed	-	-	-	-	-
Tue 19 th	 US	Net Foreign Purchases of US Securities (Nov)	09.00	(14.00)	-\$13.9bn	-	-
	 Can	Bank of Canada Policy Announcement	09.00	(14.00)	0.25%	0.25%	0.25%
	 US	NAHB Housing Market Index (Jan)	13.00	(18.00)	16	17	17
Wed 20 th	 US	Producer Prices (Dec)	08.30	(13.30)	+1.8%(+2.4%)	0.0%(+4.4%)	0.0%(+4.5%)
	 US	Core Producer Prices (Dec)	08.30	(13.30)	+0.5%(+1.2%)	+0.1%(+1.0%)	+0.1%(+1.0%)
	 US	Housing Starts (Dec)	08.30	(13.30)	574,000	575,000	585,000
Thu 21 st	 US	Initial Jobless Claims (Jan 16 th)	08.30	(13.30)	444,000	440,000	-
	 US	Philly Fed Business Activity Index (Jan)	10.00	(15.00)	+20.4	+18.0	+20.0
	 US	Index of Leading Indicators (Dec)	10.00	(15.00)	+0.9%	+0.7%	+0.8%
Fri 22 nd	 -	No significant data released	-	-	-	-	-

*m/m(y/y) unless otherwise stated; p = provisional estimate

KEY FORTHCOMING EVENTS/DATA

Date	Event	Date	Event
25 th Jan	Existing Home Sales (Dec)	27 th Jan	New Home Sales (Dec)
26 th Jan	Case-Shiller 20-City House Price Index (Nov)	27 th Jan	Fed Interest Rate Announcement
26 th Jan	Conference Board Consumer Confidence (Jan)	28 th Jan	Durable Goods Orders (Dec)
26 th Jan	FHFA House Prices (Nov)	29 th Jan	GDP (Q4 1 st Est.)

Selected Recent Publications

Date	Publication	
Mon 11 th	Capital Daily	Still a long road to recovery for the US labour market.
	Emerging Asia Economics Update	Malaysian economy to grow 5% this year.
	Latin America Economics Update	Venezuela's new currency regime looks deeply flawed.
	UK Economics Update	When should Mr Brown go to the polls?
	European Economics Update	SNB may struggle to prevent further franc gains.
	UK Commercial Property Update	Prospects for financial services sector, and office rents, still subdued.
	Emerging Europe Update	Czech Rep: pick-up in inflation but rate hikes not imminent.
Tue 12 th	Capital Daily	SNB intervention may not halt franc strength.
	Japan EWS & Bank Lending (Dec.)	Fall in bank lending not as bad as it looks.
	Japan Economics Update	Monetary Indicators Monitor (Dec.).
	UK RICS Housing Sur. (Dec) & CLG House Prices (Nov)	Market conditions loosen as new instructions outstrip sales.
	UK Trade (Nov.) & BRC Retail Sales (Dec.)	Trade figures disappointing, but consumers keep spending.
	European Economics Update	Is Portugal the next Greece?
	China Economics Update	China starts to tighten.
	US International Trade (Nov.)	Net trade probably made a neutral contribution to Q4 GDP growth.
	European Chart Book	Core inflation pressures still very subdued.
Wed 13 th	Latin America Economics Update	Mexico: Industrial production continues to recover.
	Capital Daily	China set for gradual tightening.
	Latin America Focus	Brazil: primed for take-off or doomed to disappoint?
	Emerging Asia Economics Update	Thailand shifts a little towards the exit.
	Emerging Europe Update	Region's banking sector is not yet out of the woods.
	European Commercial Property Focus	Is European commercial property fairly valued?
	UK Industrial Production (Nov.)	Manufacturing recovery remains fragile.
Thu 14 th	Capital Daily	Low inflation and sluggish recovery to keep ECB on hold.
	Japan Machinery Orders (Nov.)	Renewed decline in orders suggests investment still falling.
	UK Housing Market Focus	What does the future hold for Scottish house prices?
	Euro-zone Industrial Production (Nov.)	Euro-zone industrial recovery continues.
	Emerging Asia Economics Update	India set to lift rates at the end of January.
	Latin America Economics Update	Will a weaker bolivar spur Venezuela's economy?
	US Retail Sales (Dec.)	Consumers still not buying the recovery.
	European Economics Update	ECB holds its line.
	Emerging Europe Update	How competitive is Emerging Europe?
	UK Economics Update	Pay freezes likely to remain commonplace.
Fri 15 th	US Economics Update	Bank tax is understandable, but could backfire.
	Capital Daily	Greek fiscal plans fail to impress.
	Emerging Europe Update	Romania: IMF loan back on track, but growth to disappoint.
	Japan Economics Weekly	What difference will Kan make?
	Emerging Asia Economics Weekly	Korea set for high growth in 2010.
	US Economics Weekly	A new take on the Fed and the housing boom.
	UK Economics Weekly	Can consumers keep this up?
European Economics Weekly	-	

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