

## Janet L Yellen: Views on the economy and implications for monetary policy

Speech by Ms Janet L Yellen, President and CEO of the Federal Reserve Bank of San Francisco, at the Portland Community Leaders' Luncheon, Portland, Oregon, 29 July 2005.

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Thank you for that very kind introduction. It's a pleasure to be here with you in this beautiful "City of Roses." As a monetary policymaker, my main concern is the national economy, and that will be the chief focus of my remarks today. But as President of the San Francisco Fed, I also pay close attention to developments here in the Twelfth District, which, in many respects, mirror those of the nation.

Looking at the big picture elements—growth, employment, and inflation—I'd say things are in reasonably good shape. Over the past two years, the nation's output growth has been pretty steady, averaging just over four percent; this is solidly above trend, which, by most estimates, is around three and a quarter to three and a half percent. This growth has been amply in evidence here in the Pacific Northwest. While unemployment rates in Oregon and Washington remain above the nation's rate, your region has largely recovered from the severe hit you took during the 2001 recession and its aftermath. As a result of sustained growth at the national level, slack in labor and product markets has trended down. At 5.0 percent, the national unemployment rate now stands near conventional estimates of the natural rate consistent with "full employment." When it comes to inflation, I focus on core measures, which exclude the volatile food and energy components, to assess underlying trends. Two different measures of core inflation *have* given slightly different signals in recent months: one—the core CPI—is well within my comfort zone; the other—the core PCE—is at the upper end. However, I expect to see some moderation in inflation going forward. Similarly, most forecasters expect the pace of economic activity also to moderate toward trend-like growth. Given all this, it seems to me that the economy is on track to achieve price stability and "maximum employment"—the dual goals assigned to monetary policy by the Federal Reserve Act—and that we'll likely continue to move in a positive direction over the next couple of years.

This sounds like a rosy scenario and I realize that it ignores all of the things that could go wrong. You might well ask, "What about oil prices?" "What about the record trade deficit?" "What about the possibility of a housing bubble?" "What about the 'conundrum' of surprisingly low long-term interest rates?" Well, indeed—what about them? You would be right to ask. These questions touch on important economic developments that create risks for the positive scenario I just described. They therefore receive serious attention at the policy table. From my perspective, trying to assess such risks is what makes the conduct of monetary policy both interesting and challenging.

### Inflation risks

Let me start by looking at some of the factors that create risks for the inflation outlook and explain why I'm nevertheless fairly optimistic that inflation will moderate over the next few years. Of course, oil prices do pose an inflation risk. The price of oil has just about doubled over the past two years, from the low \$30 range to around \$60 per barrel recently. Higher oil prices are reflected in higher "headline" inflation. And they have been passed through to some extent to core inflation as well, but, unless they rise further, the effect on core inflation should begin to dissipate next year. Another risk relates to labor compensation, which is the single largest component of business costs. Recently, one measure of compensation per hour jumped abruptly. Here, too, though, I am not terribly worried because a good part of the jump is probably accounted for by one-time events, such as bonus payments and the exercising of stock options. This interpretation is supported by readings from an alternative measure of labor compensation, the Employment Cost Index, which excludes these items and has recorded only modest increases.

I'm also quite encouraged by several developments that portend a moderation in inflation going forward. For example, even with the recent revaluation of the Chinese renminbi, the dollar has increased by 7½ percent against major currencies so far this year, which should take some of the pressure off of import prices. In addition, inflation expectations, which may affect wage and price setting, appear to be edging lower: We see this both in survey results and in the financial markets—through noticeable declines in "inflation compensation", measured by the difference between the yields on Treasury bonds with and without inflation protection. A third factor is productivity growth.

There have been concerns that a structural productivity slowdown was in the offing, which could put upward pressure on inflation; the good news is that structural productivity growth apparently still remains above the levels reached during the second half of the 1990s, although it may have edged down just a bit over the last few years.

A final factor impacting the inflation outlook is the degree of slack in the labor market. Right now, the unemployment rate is relatively low: at 5 percent it's near most estimates of the so-called natural rate. But other measures—such as the employment-population ratio, a survey of job market perceptions, and industrial capacity utilization—suggest that some slack still remains.

### **Risks to economic growth and employment**

Now let me turn to the real side of the economy—growth and employment—and highlight some of the risks that affect my optimistic baseline projection. Even though overall growth has been respectable, economic activity has been burdened by some major drags over the past year or so. Three major ones result from the oil price shock, the deterioration of the trade balance, and a still relatively low level of business investment spending.

As I mentioned, the price of oil has just about doubled over the past two years. Typically, the markets view oil price jumps as temporary. But this time around, far-dated oil futures prices also have increased sharply, suggesting that the high prices may be here to stay. This is a highly unusual development. Most likely, it reflects the perception that there is little excess supply of oil available in the world and that global demand is likely to remain strong. The perception that the oil price shock is more permanent tends to intensify its negative effect on spending. Estimates suggest that the oil price shock has noticeably restrained real GDP growth—by about three quarters of a percentage point in 2005. This impact is certainly nontrivial. However, it is worth emphasizing that the recent price change and spending impacts are far smaller than those of the oil shocks in the 1970s.

The U.S. trade deficit, as we all know very well, has been growing rapidly for years. By the end of last year, it topped five and three-quarters percent of GDP, a new record. Two of the major factors contributing to the sizable imbalance between our imports and our exports are the strength of the U.S. economy relative to our major trading partners and the relative strength of the dollar. In 2004, the increase in the trade deficit—by itself—subtracted almost one percentage point from real GDP growth, representing a significant drag on overall activity.

Finally, while business investment in equipment and software rose strongly last year, by almost 14 percent, the level of investment is still not as high relative to GDP as we'd expect, given favorable economic conditions and firms' healthy balance sheets. Economic growth has been solid for a few years now. And, with the very low level of interest rates, borrowing costs can't be the problem. Moreover, profit margins have been high for some time, so firms are certainly not strapped for cash. The shortfall might be due to business caution, perhaps related to reverberations from 9/11 and subsequent terrorist threats and actions or perhaps to the corporate governance scandals and the adjustments required by the legislation that followed them. Alternatively, the investment shortfall might reflect the perception by businesses that productivity gains can be realized at this stage that do not require major new investments in equipment and software.

Whatever the explanation, the consequence of these drags is that the Fed had to keep interest rates exceptionally low for a long time just to get respectable, but not stellar, economic growth. In fact, the federal funds rate was lowered all the way to 1 percent and held there until the middle of last year. Since then, the FOMC has raised the funds rate nine times to 3¼ percent, but it still remains in a range normally considered stimulative.

### **Bond rate conundrum**

Increases in the federal funds rate typically lead to increases in longer-term interest rates. But, as we all know, long-term rates have actually fallen as the FOMC has raised short-term rates. For example, the benchmark ten-year Treasury rate is down by more than ½ percentage point since the funds rate started heading up in the middle of last year. This is the basis for what Chairman Greenspan has called the bond rate "conundrum" that has commanded so much attention recently.

There is a debate about how to interpret the decline in longer term yields and it essentially boils down to whether the surprising behavior of long rates is due to various "special factors" operating

independently of the current business cycle or instead augurs bad economic news on the horizon. If special factors are holding down long term yields, then the total amount of stimulus to spending from interest rates is currently greater than would be surmised on the basis of the current federal funds rate. In effect, unusually low long-term bond rates are now providing extra stimulus to offset the drags I described. A number of “special factors” might be at work to flatten the yield curve. One possibility is that low bond rates reflect a drop in risk premiums because inflation has become better anchored and the volatility of the real economy has fallen. But let me also note that other factors would seem to work in the opposite direction—for example, our large and growing federal budget and trade imbalances could be raising risk premiums.

Another possibility is that low long-term rates reflect unusually strong demand for long-term securities, for example, by pension funds seeking to improve the match between the durations of their assets and liabilities, by holders of mortgage-backed securities seeking to maintain the durations of their portfolios, or by foreign central banks that have been acquiring dollars. China may have been playing an especially large role, as its central bank has intervened in foreign exchange markets to peg the renminbi at a low level against the dollar. Of course, last week the People’s Bank of China announced that it had revalued the renminbi against the dollar by 2.1 percent, with the stated intention of managing the renminbi’s exchange value against an unspecified currency basket. This is not a large revaluation, but some observers think that it is the beginning of a much bigger move over time. If this is the case, we may gain a better understanding of the impact, if any, that Chinese exchange rate policy has had on U.S. bond rates.

An alternative to “special factors” as an explanation for the low level of long-term yields is the possibility that the flat yield curve reflects the market’s assessment that bad news is on the horizon. In other words, investors may expect only modest increases in the funds rate in the future because they think that the drags I’ve described will keep demand on the weak side for some time to come.

We probably won’t know the most important sources of this “conundrum” until more time passes, but the causes of the conundrum do matter to monetary policy. If the first class of explanations turns out to be correct, the federal funds rate probably needs to be somewhat higher than would otherwise be appropriate to offset the additional stimulus due to the flat yield curve. If the latter explanation fits the bill, and the market is correct that the drags going forward will be unusually strong, a somewhat easier policy may be appropriate.

## **Housing**

Whatever the source of the conundrum, clearly low long-term rates have contributed to the continuing boom in the housing market. The share of residential investment in GDP is now at its highest level in decades. The question on everyone’s mind, of course, is whether this source of strength in the economy could reverse course and become instead a source of weakness. Put more bluntly: Is there a housing “bubble” that might collapse, and if so, what would that mean for the economy? To begin to answer this question, we need to know what we mean by the term “bubble.” A bubble does not just mean that prices are rising rapidly—it’s more complicated than that. Instead, a bubble means that the price of an asset—in this case, housing—is significantly higher than its fundamental value.

One common way of thinking about housing’s fundamental value is to consider the ratio of housing prices to rents. The price-to-rent ratio is equivalent to the price-to-dividend ratio for stocks. In the case of housing, rents reflect the flow of benefits obtained from housing assets—either the monetary return from rental property, or the value of living in owner-occupied housing. Historically, the ratio for the nation as a whole has had many ups and downs, but over time it has tended to return to its long-run average. Thus, when the price-to-rent ratio is high, housing prices tend to grow more slowly or fall for a time, and when the ratio is low, prices tend to rise more rapidly. I want to emphasize, though, that this is a loose relationship that can be counted on only for rough guidance rather than a precise reading.

Currently, the ratio for the country is higher than at any time since data became available in 1970—about 25 percent above its long-run average. Of course, the results vary widely from place to place. For Los Angeles and San Francisco, the price-to-rent ratio is about 40 percent higher than the normal level, while for Cleveland the ratio is very near its historical average.

Closer to home, the figure for Seattle is just over 35. For Portland, it turns out that the price-to-rent ratio is a bit anomalous. Unlike the ratio for the nation and many of the cities I’ve mentioned, Portland’s ratio has been trending up, and this pattern has been going on since the late 1980s. This

means that there's not a stable long-run average ratio to use as a comparison for today's ratio, so the analysis we did for the other cities wouldn't be that meaningful for Portland. What we do know is that the pace of home price appreciation in Portland has been close to the national pace over the past few years, lagging behind somewhat in 2003 as the state struggled to recover from the 2001 recession, but mostly catching up in 2004 and early 2005 as economic growth picked up noticeably in the state. As of early this year, home prices in the Portland area were up 12 percent over a year earlier, only a bit below the national pace of 12½ percent. More recently, I've heard reports that upscale homes in the Portland area are increasingly being sold at above-asking price—a phenomenon we're all too familiar with in the Bay Area! So it's clear that Portland's housing market has been hot, but I'm sure that's no surprise to you.

In any event, as I said before, the fact that the ratios for the nation and many areas of the country are higher than normal doesn't necessarily prove that there's a bubble. House prices could be high for some good reasons that affect their fundamental value. The most obvious reason is the low level of mortgage rates. This stems both from very stimulative monetary policy and from the conundrum I discussed earlier. Conventional mortgage rates have dropped from around 6 percent in early 2004 to around 5 percent recently.

Other factors could also be raising housing's fundamental value. For example, recent changes in tax laws may be having an effect. In 1998, tax rates on capital gains were lowered and the exemption from capital gains taxation for housing was raised to \$500,000. Both of these changes would reduce the potential tax bite from selling one home and buying another. Another development, which may be making housing more like an investment vehicle, is that it's now easier and cheaper to get at the equity—either through refinancing, which has become a less costly process, or through an equity line of credit. Both of these innovations in mortgage markets make the funds invested in houses more liquid.

So there are good reasons to think that fundamental factors have played a role in the unusually high price-to-rent ratio. But the bottom line here is fuzzy. It's very hard to say how big a role these factors have played, so we don't know how much remains unexplained. Frankly, even the best available estimates are imprecise, and they don't definitively answer the question: Is there a bubble, and if there is, how large is it?

Given this uncertainty, my focus as a monetary policymaker is on trying to understand what kind of risks a drop in house prices would pose for the economy. One of the classic ways to do this is to ask "What if...?"—in other words, to pose a purely hypothetical question. In this case, the "what if" question might be, "What's the likely effect if national house prices did fall by 25 percent, enough to bring the price-to-rent ratio back to its historical average?" Before going any further, I want to emphasize that I'm not making any predictions about house price movements, but instead, simply discussing how a prudent monetary policymaker could assess the risk.

First, there would be an effect on consumers' wealth. With housing wealth nearing \$18 trillion today, such a drop in house prices would extinguish about \$4½ trillion of household wealth—equal to about 38 percent of GDP. Standard estimates suggest that for each dollar of wealth lost, households tend to cut back on spending by around 3½ cents. This amounts to a decrease in consumer spending of about 1¼ percent of GDP. To get some perspective on how big the effect would be, it's worth comparing it with the stock market decline that began in early 2000. In that episode, the extinction of wealth was much greater—stock market wealth fell by \$8½ trillion from March 2000 to the end of 2002. This suggests that if house prices were to drop by 25 percent, the impact on the economy might be about half what it was when the stock market turned down a few years ago.

Moreover, the spending pullback wouldn't happen all of a sudden. Wealth effects—positive or negative—tend to affect spending with fairly long lags. So, a drop in house prices probably would lead to a gradual cutback in spending, giving the Fed time to respond by lowering short-term interest rates and keeping the economy steady.

Now let's complicate things. Suppose house prices started falling because bond and mortgage interest rates started rising as the conundrum was resolved, say, because the risk premium in bonds rose due to concerns about federal budget deficits or other factors. Then we'd have the cutback in spending because of the wealth effect, plus there'd likely be further spending cutbacks, as borrowing costs for households rose. Furthermore, a rise in long-term rates would have effects beyond just households—it also would dampen business investment in capital goods through a higher cost of capital.

How manageable would this scenario be? Like the wealth effect, these added interest-rate effects operate with a lag, so, again, there probably would be time for monetary policy to respond by lowering short-term interest rates. This obviously would not be a “slam dunk,” but in many circumstances it would seem manageable.

A matter of more concern is whether this scenario would lead to financial disruptions that could cause spending to slow sharply and quickly. One issue that receives a lot of attention is the increasing use of potentially riskier types of loans, like variable rate and interest-only loans that may make borrowers and lenders vulnerable to a fall in house prices or increase in interest rates. I believe that the odds of widespread financial disruption on this count are fairly slim, although, clearly, some borrowers are vulnerable. First, the shift to these new instruments appears relatively modest overall. Second, the equity cushions available to both borrowers and lenders still seem, on average, to be pretty substantial. This is evident in looking at loan-to-value ratios, which have fallen, on average, as home valuations have risen faster than mortgage debt. In addition, most financial institutions enjoy comfortable capital positions, so they’re better able to weather any problems with their mortgage portfolios. Finally, some of the risk associated with mortgages has been transferred from banks to investors, as banks have sold off securitized bundles of mortgage debt. These investors may be in a better position to handle the associated risk. So, while there undoubtedly would be some fallout from a substantial drop in house prices, the financial system and consumers appear to be in reasonably good shape to handle the situation.

### **Monetary policy**

I’d like to close my remarks by taking a step back from the home price story and putting it in the broader context of the economy’s overall performance—which, after all, is the chief concern of monetary policymakers. As I’ve emphasized, economic activity has been burdened by some major drags over the past several years. As a result, the Fed has had to keep interest rates exceptionally low for a long time just to get respectable economic growth. In fact, respectable growth is all we have gotten—even with exceptionally low long-term yields and unexpectedly rapid gains in house prices.

This growth has had to rest on the backs of just a few interest-sensitive sectors—business investment, consumer durables, and housing. From this perspective, it’s not all that surprising that housing markets have been hot. My point is that to offset the “drags” we’ve needed to give the economy a strong dose of stimulus—which inevitably boosted the housing sector.

As I’ve discussed, if a sizable reversal in house prices were to occur, it probably would affect the economy mainly through the lagged effects of declines in wealth and increases in interest rates, rather than through widespread financial disruptions. This would give monetary policy time to react to any resulting economic weakness by lowering interest rates. In addition, the magnitude of the potential house price overvaluation may be only around half that of the earlier stock market overvaluation.

In conclusion, policy still appears to be somewhat accommodative, and given the recent inflation performance and the dwindling of slack, it makes sense to continue the process of removing that accommodation.

I hope I’ve provided you with some insight on the issues that I think are important to focus on as the Fed goes through this process. I look forward to taking your questions.

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