## "INTERNATIONAL ECONOMY

## THE MAGAZINE OF INTERNATIONAL ECONOMIC POLICY

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# Yellen View

One of the Federal Reserve system's most experienced policy strategists offers her insights.

A TIE exclusive interview.



The

Janet L. Yellen took office as President & Chief Executive Officer of the Federal Reserve Bank of San Francisco on June 14, 2004.

**TIE:** What is your assessment of the U.S. economy? We recently saw some spending data on the weak side, although the general consensus is that the economy is doing well. What is your view, particularly given any impact from the rise in oil prices?

**Yellen:** I am in general agreement with the consensus, although higher oil prices have taken a toll both on households and on businesses. That could explain why a "soft spot" emerged both in consumer and capital spending toward the end of the first quarter. It is worth remembering that we saw a similar "soft spot" in consumer spending in the spring and early summer of 2004, also following a spike in oil prices. Fortunately, it proved to be transitory: the growth rate of consumer spending rebounded pretty quickly. I am hopeful that the recent soft spot will similarly prove to be short-lived, although it suggests some downside risks for economic growth.

The fundamentals underlying business investment seem very strong at the moment and household spending has been supported by rising disposable income, rising net worth, due in part to house prices, and low interest rates. And oil prices have backed off their recent highs. So, on balance, my outlook is for





The Light Is Precise, 2003, by Randall Sexton, oil on canvas, 30 inches by 40 inches, courtesy of John Pence Gallery.

sustainable growth going forward—enough above trend to gradually erode the remaining slack in labor markets but not so robust that I would worry about the economy substantially overshooting full employment. Over the past twelve months, we've had strong months

## Oil prices are at the top of my list of worries.

alternating with weaker months, but nonfarm payroll jobs grew by 165,000 per month on average, which was enough to move the unemployment rate down from around 5.6 percent to 5.1 percent. There is a lot of uncertainty about the amount of slack that remains in the labor market, but 5.1 percent comes reasonably close to common estimates of "full employment." Even with the recent "soft spot" in spending, job gains averaged 180,000 per month during the first five months of 2005.

On the inflation front, we have seen some intensification of inflation and pricing pressures over the last few months. We now hear more anecdotes about businesses being able to pass along price increases resulting from higher energy, raw materials, and transportation costs. The main inflationary drivers at this point come from higher oil prices, increases in commodity prices due to robust growth in the global economy, especially China, and the decline in the dollar, which has boosted import prices somewhat. The impact of these "supply shocks" is showing up not only in headline inflation but also, to some extent, in core consumer prices. We see it in both the consumer price index and the core PCE [personal consumption expenditures] price index.

However, to the extent that these costs are being passed through into prices, they should result in only one-time boosts to the price level, not faster inflation on an ongoing basis. On balance, I feel pretty comfortable about the outlook for inflation because the fundamentals governing the evolution of unit labor costs are favorable. The pace of structural productivity growth remains quite strong—it keeps surprising me on the upside. And wage and overall compensation pressures are modest, in spite of ongoing increases in health insurance costs. In addition, longer-term inflation expectations are well-contained and should remain so if the Fed does its job, namely, to keep inflation under control. Given the Fed's commitment to do exactly that, I am optimistic about the long-term outlook for inflation and think it is likely to remain within a range that, in my opinion, is consistent with price stability.

**TIE:** One of the recurring themes at the Fed is that companies for quite a while have been saying they're seeing price pass-throughs. Yet the data on inflation are hardly conclusive. The core PCE deflator sits at 1.6 percent. Are you losing confidence in anecdotal evidence? Or are we looking at the wrong data?

**Yellen:** It's true that the core PCE price index has risen only 1.6 percent over the last twelve months. But over the last three months it's up 2.2 percent—substantially more. We see the same pattern in the core CPI, which is up 2.2 percent over the last twelve months and 2.6 percent over the last three months. I believe we are seeing this pattern of rising core inflation for the reasons I mentioned: pass-through of energy, raw materials, and transportation cost increases into core consumer prices. This is consistent with the anecdotes. Businesses are broadly affected by these cost increases and our contacts tell us that they are having increasing success in passing these cost increases along. But, as I mentioned, I do not see this as alarming. The increase in inflation should be temporary as long as inflation expectations, which influence wage and salary bargaining, remain well contained. That, in turn, comes down to whether or not the Fed can be counted on to

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do its job and I think it certainly can. Productivity and compensation growth are the drivers of unit labor costs, which are the main determinants of inflation over the medium term. Structural productivity growth



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—J. Yellen

and compensation wage growth both look good in spite of the uptick in core inflation.

### TIE: Are you at all worried about oil prices staying at the \$50 per barrel level?

**Yellen:** Well, oil prices have continued to surprise market participants on the upside and, at this point, higher oil prices are expected to persist over the next several years. Just a year ago, the futures markets were forecasting that oil would be selling for \$30 per barrel at the end of 2006. The forecast is now for oil over \$50 per barrel at the end of 2006—a very large change in the outlook.

Oil is not as important in the U.S. economy as it was back in the 1970s—we're far more energy efficient. And oil prices, in real terms, are still below the peaks reached in the 1970s. But higher oil prices do drain consumer purchasing power and hit businesses on the bottom line. I think the decline in consumer confidence and weakness in consumer spending we've seen recently are probably related to the spike in gasoline prices although, as I mentioned, consumer spending bounced back quickly after last year's oil price spike and I hope the same will be true this time.

The consequence is that, although we are less vulnerable to oil price increases within the range we've seen so far, oil prices are at the top of my list of worries, considering the risks going forward. Of course, we need to consider not just the U.S. but also the global economy, and oil prices create notable downside risks there—for Europe, for Japan, and for Asian growth as well. There is vulnerability there, but we've certainly adjusted well so far.

TIE: Have you been surprised by the shape of the yield curve in the United States? Why haven't long rates been higher over the past year? Could this situation be a reflection of the Fed's inflation fighting

prowess, or perhaps the massive amount of liquidity floating around the world? Some analysts think the oil situation, as reflected in Japan and Europe, shows that growth in the rest of the world probably is going to be soft for the next several years, restraining U.S. growth as well. What's your opinion?

**Yellen:** Chairman Greenspan referred to the low level of long rates as a "conundrum" in his Humphrey-Hawkins testimony in February and they rebounded as soon as he said that, but then partly retraced their steps. When the Fed started tightening monetary policy last June, the ten-year yield was about 50 basis points higher. It is quite surprising that long-term yields are so low and have fallen while short-term rates were rising due to the Fed's policy actions. I agree with those observers who say that the low level of long-term rates partly reflects the fact that inflation expectations have been so well contained, and that does reflect the Fed's inflation fighting prowess. But I think long-term rates are yet lower than can be

## Productivity growth has

been utterly stunning.

explained by inflation expectations, and I consider this a puzzle.

The level of long-term interest rates, say the tenyear Treasury bond yield, depends on two things: market expectations concerning the path of short-term rates over the same ten-year horizon, and the "term premium" that investors demand to lock in their funds for ten years instead of committing funds just one year at a time. I think one factor that explains why longterm rates are so low now is that investors expect short-term rates to remain relatively low for the foreseeable future.

A major factor that will influence the level of short-term rates over the next decade is the average rate of inflation. Without well-contained long-term inflation expectations, in turn reflecting confidence in the Fed's commitment to keep inflation contained, it would be impossible to explain why long-term yields are so low. We can confirm that inflation expectations are well-contained from survey measures of inflation expectations and also from measures implicit in financial market pricing, such as the differential between

## *The pace of structural productivity* growth remains quite strong.

nominal Treasury yields and TIPS yields, which is a measure of inflation compensation.

In addition, it appears that the expected path of real interest rates over the next decade is also quite low, which I find surprising, given the projected path of the Federal deficit and the low personal saving rate. It could, as you hypothesize, reflect projections of weak global growth, possibly due to oil, a glut of global savings, or other factors.

Finally, the term premium also appears to be unusually low. This could reflect the market's belief that inflation risk has diminished, since one reason that investors require a term premium is to compensate for inflation risk. Such an expectation again suggests confidence in the Fed's ability not only to keep inflation low but also to keep it stable. In fact, the U.S. economy has become much less volatile during the last two decades. Inflation's less volatile, interest rates are less volatile, and GDP is less volatile. Sometimes researchers call this the "Great Moderation." Less volatility justifies a lower term premium.

That said, I think the term premium is still lower than can be explained by all of these factors combined. So I agree with Chairman Greenspan's "conundrum" characterization. Some observers hypothesize that the demand by foreign central banks for longer-dated Treasuries could be responsible for the conundrum, but work by my colleagues at the San Francisco Fed suggests that the behavior of official foreign purchasers of Treasuries is not a convincing explanation. Other hypotheses have been offered, but the puzzle remains.

**TIE:** Whatever the reason, are you concerned that as the spread, for example, between the two- and tenyear bonds flattens out, that squeeze on the carry trade might be creating tighter liquidity conditions that are going to show up with a lag later on?

**Yellen:** One needs to be concerned if market participants are taking risky leveraged positions without being aware of the risks that they face from engaging in speculative trades. But it seems to me that markets are pretty well informed on this topic. The Chairman has gone out of his way to alert those engaged in the carry trade and holding longer-term assets of the risks they are bearing and his view that the yield curve is unusually flat.

**TIE:** What is your outlook on productivity? American corporations have been cash-rich for quite a while now, and they seem to have done everything they can to avoid overinvestment—initiating stock buybacks, offering generous dividends, and the like. Corporate CEOs are being unusually cautious. Do you see that changing? Is CEO caution tied in part to the Sarbanes-Oxley regulations?

**Yellen:** Productivity growth has been utterly stunning. We trumpeted a new economy in the second half of the 1990s when productivity growth rose from about 1.5 percent to about 2.5 percent, but over the last three years we've had productivity growth closer to 4 percent. It's especially striking that productivity growth was so strong during a period in which investment spending was so weak. At this point, however, investment spending has rebounded nicely and is growing at a healthy pace. I think that business caution with respect to investment spending has receded consider-

Such strong productivity growth—over a period when investment spending wasn't nearly as hot as it was during the second half of the 1990s—tells us that multifactor productivity growth has increased very substantially. I think we're continuing to reap the gains associated with the tremendous information technology investments during the earlier period. Firms are figuring out how to use those investments and the associated technologies to restructure their businesses and find further efficiency gains to hold their costs down. We constantly ask our business contacts what's happening with productivity growth, and the type of anecdote we hear, for example, is a law firm explaining how they've managed to use search software to look for evidence in emails as they're preparing for trial. The firm used to use high-priced lawyers to search the emails. The investment was already in place but the firm figured out new ways to save on labor expenses by employing these new technologies. That's not going to end any time soon.

## **TIE:** Where are we in the effort to find a neutral Fed funds rate? Is a neutral rate still a goal or has the Fed moved beyond that?

**Yellen:** Some of my colleagues think "neutral" is not a useful concept and I'm a bit torn on this topic myself. We shouldn't get too fixated on what neutral is. Even if we knew the value precisely, that's not the beginning and end of how we need to think about monetary policy. Neutral is certainly not a general goal of monetary policy—it's only appropriate under special circumstances. That said, I still find it a helpful benchmark in spite of the fact that we're very uncertain about what it is. My definition of the neutral real funds rate is the value of the real Federal funds rate that, if it were maintained for a medium-long period of time—three, five, or seven years—would be sufficient to bring the economy to full employment, namely to close any output gap that exists. "Neutral" would be the right posture for monetary policy if inflation were just where the Committee wanted it to be and the economy were operating at full employment.

That means that monetary policy should be at neutral only when economic conditions are "just

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right." When the economy is weak and there's a lot of slack in the labor market, the Fed should have its foot on the accelerator. In that situation, other things being equal, monetary policy should be accommodative with the real funds rate below neutral. Sometimes policy should be tighter than neutral—for example, if inflation is higher than the Fed feels is consistent with price stability. The neutral real rate itself depends on a variety of factors—the stance of fiscal policy, the trend of the global economy which shows up in our net exports, the level of housing prices, the equity markets, the slope of the yield curve, or the term premium built into the yield curve. So it changes over time. Research suggests that the neutral real rate is probably somewhere in a 1.5 percent to 3.5 percent range. To get to a neutral nominal rate, we have to add in expected inflation. That probably takes us to a neutral nominal range of around 3.5 percent to 5.5 percent at this point. At this stage, policy still remains accommodative according to this metric, since the federal funds rate (now at 3 percent) is below the lower bound of this range. Assuming that the economy continues to grow rapidly enough to remove remaining slack, and inflation remains well under control going forward, it makes sense to keep heading to neutral.

## **TIE:** Would the neutral rate be higher if the productivity growth rate came in significantly less than expected?

**Yellen:** Productivity growth affects the level of the neutral real funds rate, but faster productivity growth does not necessarily raise the neutral real rate. The direction of impact is uncertain because faster productivity growth affects the growth rate of both aggregate supply and demand. When productivity growth provides large stimulus to aggregate demand it is apt to raise the neutral rate. We saw this in the second half of the 1990s. Robust productivity growth boosted equity prices and expectations of growth in personal income, boosting consumer spending. It also raised the rate of return to capital, boosting investment spending. Both factors imparted momentum to aggregate demand and that translated into a higher neutral real interest rate. I am less certain that the same thing is occurring now. Productivity growth is very strong, even stronger than it was in the second half of the 1990s, and investment spending is rebounding, but we haven't seen quite the same momentum in demand as at the end of the 1990s and, of course, we're not seeing the same behavior of equity prices.

TIE: Are you worried that the other major industrial regions of the world don't seem to be doing well? Productivity gains in the United States don't seem to be spreading. That may explain a lot of our trade deficit problems but we're practically carrying the world as the consumer of last resort. Does that present a risk to you?

**Yellen:** We do see very rapid growth in China, and Asia as a whole is growing at a very healthy pace. Latin America has been doing quite well. I am concerned, however, about growth in parts of Europe, such as Germany, where growth has been extremely sluggish and also Japan which is performing somewhat better but still hasn't put an end to deflation. The more rapid productivity growth we've seen in the United States hasn't shown up nearly as much in Europe. The United States remains a very attractive place to invest, to some extent because of rapid productivity growth.

Part of the explanation of why we have such a large trade deficit is that the United States is an attractive place to invest. Part of it may also have to do with what Ben Bernanke has termed the "savings glut" in the rest of the world. It is natural to expect developing countries to borrow, but a lot have switched from being net capital importers to net capital exporters. As you suggested, there is a kind of co-dependency here—the United States has become the world's consumer of last resort and is attracting a huge capital influx, the reflection of which is our trade deficit. There certainly are risks in this situation since the implied path of U.S. debt to the rest of the world seems likely to be unsustainable.

TIE: Former Governor Bernanke made the argument that the savings glut may explain why "neutral" is lower than it has been historically. One theory says that from the early 1980s up until the last few years, the real fed funds rate has been intentionally high to squeeze inflation out of the system, but averaging that into a calculation of neutral really biases the number.

**Yellen:** I agree. It's not right to use a historical average to calculate the neutral rate. "Neutral" has moved a lot over time. The forces unleashed by the collapse of equity prices, the tech bubble, the corporate governance scandals, and geopolitical risks almost surely depressed any medium-term measure of neutral relative to either the end of the 1990s or earlier when we were trying squeeze inflation out of the system. The huge drag from our current account deficit, which

partly reflects the global savings glut, is also a factor that works to depress the value of neutral. I gave a pretty broad range for neutral—around 1.5–3.5 percent. A historical average is probably closer to 2.5–2.75 percent, so the lower part of that range I gave you would incorporate considerations like the huge drag from our trade deficit.

**TIE:** If you look at the world economy today, it seems like all roads lead to China. Yet there are real guestions about how much we can trust China's economic data. For a number of years, the rest of the Asian economies have exported parts to China which are assembled and then exported to the United States. So China runs a significant trade surplus with the United States and a deficit with the rest of Asia, leaving them in balance but also leaving many of the other non-Chinese Asian economies with currency reserves equal to 50-60 percent of their GDP. So much of the future scenario for the world economy assumes a certain growth rate from China and a certain exports scenario and a certain recycling of dollars that may not be there. How do you see the situation?

**Yellen:** I agree that China is a very important factor in the global outlook. China and the United States have been the real engines for growth for the global economy over the last year or two. China's growth also has been a very important influence on oil and commodity prices. Even if you don't trust the data, it seems clear that China is growing very rapidly, and the incredible pace of investment spending there is influencing the global market for steel, concrete, materials, and energy. So China is certainly a factor in rising global commodity prices.

On balance, China's growth has been a positive for the rest of Asia and Japan. My sense is that, whatever the precise numbers, growth continues to be very robust in China. Perhaps the controls on lending and investment spending that have been put in place have had some impact in slowing the Chinese economy, but China continues to face the tricky problem of slowing its economy, and controlling inflationary pressure, while avoiding a hard landing. As you mentioned, China is accumulating reserves at a rapid rate, partly due to a current account surplus but also due to speculative capital inflows, and the need to sterilize those inflows to maintain monetary control, and the difficulty of doing that at the current scale, is a factor that's impeding their ability to get their macro economy under control.

#### TIE: Are we looking at essentially a Chinese bubble about to burst?

**Yellen:** Chinese policymakers have that fear and my guess is that they're right to have that fear. The level of investment as a share of GDP is probably unsustainably high and a lot of this investment is in steel factories, automobile factories, cement factories, and housing. Given the way the Chinese financial system works—it's not yet fully decontrolled with respect to interest rates and it's not yet operating on a fully commercial basis—they're right to fear that they may have overexpansion of capacity in some of these sectors. A few years down the road we could see gluts in industries like steel where prices are high now, because there's so much investment going on. This is why I think they've chosen to restrain investment spending directly, particularly in sectors where they see overexpansion.

China appears to be very serious about cleaning up its banking sector and improving its efficiency. It's loaded with nonperforming loans, and the current investment boom could create a new round of nonperforming loans, saddling the banking sector with another set of problems.

TIE: The way the global economy is working, China is totally focused on exporting rather than developing a real balance between demand and supply domestically. The United States is really the only major economy absorbing all of this output. A solution to this global imbalance in trade is impossible as long as the United States is the consumer of last resort and growth in the other industrial countries is flat. With China pegged to the dollar, the imbalance perpetuates itself. Is the artificial Chinese currency situation one of the things that's stimulating the bubble?

**Yellen:** I agree that a solution to the current pattern of global trade imbalances will require the United States to yield its status as the world's consumer of last resort. It

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would also be facilitated by more rapid growth of domestic demand in China, particularly consumption spending. The peg of the Chinese renminbi to the dollar has led to an effective depreciation of the renminbi as the dollar has declined, enhancing China's competitive position, although the buildup of foreign exchange reserves also reflects capital inflows. In my view, there are compelling domestic reasons for China to increase the flexibility of its currency over time, particularly the need to conduct an effective monetary policy as financial markets are liberalized. As I mentioned, there are difficulties even now in sterilizing reserve inflows and a possible fear that raising interest rates to cool the economy would attract even larger capital inflows. These problems will only increase as capital markets are liberalized. Of course, China has declared its intention to increase exchange rate flexibility, but I have little sense of the likely time frame.

TIE: Actually the Chinese just announced that they promise to float their currency the moment the Bush Administration balances the federal budget. [Laughter.] Next question: Do you have an opinion on inflation targeting as Federal Reserve policy?

**Yellen:** I don't favor a full inflation targeting regime. I'm a strong believer in multiple objectives for monetary policy as spelled out by the Federal Reserve Act, namely price stability but also stabilizing output and attaining full employment. So I would not favor a regime in which inflation or price stability would be the sole target of monetary policy. That said, it would be helpful, in my opinion, for the Federal Open Market Committee to enunciate a numerical long-run inflation objective as long as it's understood that price stability is not the only goal of monetary policy.

It's not that U.S. monetary policy is broken. We have a long period of low inflation and a highly credible commitment to price stability. These are great achievements of the Greenspan era. Some people argue that inflation targeting lowers the output costs of bringing inflation down. But it would be hard to look at the experience of other central banks and see how, simply by adopting an inflation targeting regime, they magically brought inflation down without incurring any output costs. Even if there is no payoff of that sort, I think it's appropriate for the Federal Reserve to explain to the public in quantitative terms what its long-run inflation objective is. Transparency facilitates accountability, which is an important objective in its own right. In addition, it would facilitate internal policy formation within the Committee. It could help anchor the public's inflation expectations.

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In 2003, we had a scare as the federal funds rate approached its zero nominal bound, creating a risk that deflation could develop and the Fed would lack the ability to respond. Having an explicit numerical inflation objective would enhance the Fed's ability to deal with such possibilities. It could also improve the Fed's latitude to conduct stabilization policy—enabling it to respond to the negative real impacts of adverse supply shocks. The articulation of a numerical inflation objective might reduce the possibility of an "inflation scare" following such shocks.

I think the public knows fairly well what the term "price stability" means to the FOMC through observing its behavior and its pronouncements over the years. A number of my colleagues have also given speeches in which they've offered up their personal views. I would consider 1.5 percent inflation, as measured by the core PCE deflator, a sensible long-run inflation objective. This puts me in the mainstream of those who have spoken out. So, to sum up, I favor enunciating a quantitative long-run inflation objective but would not favor adopting a full-blown inflation targeting regime. I believe strongly in pursuing the dual objectives specified in the Federal Reserve Act: "maximum employment" and price stability.

**TIE:** And last but not least, how do you compare being a Fed Governor to being the president of a regional Fed bank?

**Yellen:** In both cases, there is participation in FOMC debates about monetary policy, and that's a very important role for regional presidents as well as for the Governors. In the job of president, one has the ability to interact more with the business community, to get a first-hand read on how businesses and workers perceive the economy, and to collect anecdotal information.

Here in San Francisco, we have a pretty heavy focus on Asia and try to be a source of understanding and information on economic developments in the Asian economies which are increasingly relevant to the U.S. and global outlooks. That's a part of the job that I value very much.

Beyond monetary policy, the Federal Reserve banks have an operational role. We have responsibility for supervising banks and operating the payments system, and those are aspects that are an interesting new challenge for me. The payments system is changing rapidly and our Bank and the Federal Reserve System as a whole are facing some of the same problems of downsizing that have impacted lots of American businesses. There's an important management role as president of a Federal Reserve bank that I didn't have in the role of Governor.

But they're both wonderful jobs. The Fed is a great organization. It's highly professional and totally devoted to public service. It's a pleasure to be part of the System again.