Speech to the Silicon Valley Leadership Group
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The U.S. Economy in 2007

Good afternoon, everyone. It's a pleasure to have the opportunity to speak to the Silicon Valley Leadership Group today. I owe a debt of gratitude to Ken Wilcox for facilitating the invitation. As you may know, Ken serves on the San Francisco Fed's Head Office Board of Directors, having recently been elected to a second term. He and the other Directors, not only at the Head Office, but also at our Branch offices, play an important role in the formulation of monetary policy. Of course, the emphasis of our policy analysis and our policy decisions must be on what serves the best interests of the nation as a whole. But the Directors' independent assessment of conditions in specific regions and specific industries often gives us insights into developing trends that the national data may not reflect for weeks or months. Our Directors also play a key role in communicating with the public about the Fed and its mission—and that includes hearing the public's views on the economy and bringing that information back to the Boardroom. This kind of give-and-take with the public is a high priority for me, as well, so I am looking forward very much to hearing your comments and observations during the question and answer session.

My remarks today will center on recent developments affecting the U.S. economy and what they may portend for the future and especially for the conduct of monetary policy. I will spend some time focusing on housing markets, since they may play a key role in determining which direction economic activity and inflation will head over the rest of this year. Before I begin, let me note that my comments represent my own views and not necessarily those of my colleagues in the Federal Reserve System.

As you no doubt remember, the Federal Open Market Committee began to remove monetary stimulus in mid-2004, after a long stretch of keeping the federal funds rate—our main policy tool—at a very low level. Altogether, there were 17 consecutive quarter-point increases in the funds rate over about two years. During much of that time, the economy averaged solid growth, absorbing a good deal of the slack in labor and product markets. The object of the policy tightening was to slow the economy's growth to a more sustainable pace and to foster a gradual decline in inflation, promoting price stability. In August of last year, the Committee voted to "pause," that is, not to raise the funds rate another quarter point, but to leave it at 5¼ percent. By then, some of the effects of the earlier increases were being felt, as the economy showed signs of slowing, and this gave some sense of reassurance that inflation was likely to moderate from an elevated level. These moves held the promise of setting the economy on a glide path for the proverbial "soft landing"—an orderly slowing of growth that avoids the risk of a severe downturn while producing enough slack in labor and goods markets to relieve inflationary pressures and, indeed, to bring inflation down gradually to a more acceptable level than it has registered over the prior year or so.

In large measure, the economy has moved within range of this outcome. And at the last meeting of the Committee, the members voted to keep the funds rate at 5¼ percent. But as always, there are risks to this forecast that need to be watched closely. At this stage, the predominant risks center on whether inflation will continue to move down gradually. This concern was expressed in the statement following our last meeting, and I'd like to elaborate on that point in the remainder of my remarks.

Let me begin with where inflation is right now. Based on our main measure—the price index for personal consumption expenditures excluding food and energy, or the core PCE price index—consumer inflation was 2.2 percent over the past year, which, as I indicated, is higher than I would like to see. However, it is encouraging that we have seen some easing recently: in the last three months, this index has registered a more acceptable 1.7 percent annual rate of increase. The core CPI, which came out this morning, was on the high side of expectations in January. However, this followed three straight months of low core CPI inflation; after smoothing through the volatility, this measure of inflation also has eased in recent months.

One explanation for this decline in inflation involves the impact of stabilizing, and now falling, oil prices. As I mentioned, core inflation, by definition, excludes energy prices, but they still may affect core inflation to the extent that they affect the prices of other goods and services. For example, transport companies might raise their prices to pass along the higher costs of filling their trucks' gas tanks. This is known as "pass-through," and it is likely that it has played at least some role in recent movements in core inflation. Now that oil prices have fallen a fair bit from recent highs and are expected by futures markets to remain at those lower levels, this upward pressure on core inflation is likely to dissipate and may even be turning into modest downward pressure. However, it's important to remember that the effects of oil price changes on inflation are by their very nature temporary. So at some point, the fall in oil prices will no longer have a favorable effect. Abnormally rapid rent increases, likely reflecting an increase in the demand for rental units by would-be owners who have been priced out of the housing market, have also elevated core inflation over the past year. As the housing market adjusts over time, however, this source of inflationary pressure is also apt to dissipate.

Beyond these temporary effects, the stability of inflation expectations is another reason to take a positive view and project a gradual diminution of inflation. Expected future inflation is one of the factors that businesses consider in setting their prices and that workers consider when they bargain for compensation. These expectations appear to have been well anchored over the past ten years or so as the Fed has established its credibility with the public about both its commitment to and its competence in keeping inflation at low and stable rates. One piece of evidence supporting this credibility is that, in the face of the recent large oil price increases, we've seen stability in survey and market measures of inflation expectations looking ten years ahead.[1]

By now you are probably asking yourselves, if the inflation rate has been falling and if inflation expectations are well anchored, why the concern about risks to the forecast of gradually lower inflation? Part of the answer is to be found in the strength of labor markets. The latest data show payroll employment growing at a rather robust pace for all of last year. Moreover, the unemployment rate has declined by half a percentage point over the past year and now stands at just over 4½ percent; that rate suggests a degree of tightness in the labor market, because it is somewhat below common estimates of the rate that can be sustained in the long run without generating rising inflation.

I say "suggests" a degree of tightening in labor markets because there is uncertainty about it. For example, if labor markets are tight, one would expect that labor compensation—including both wages and benefits—would be rising rapidly. However, the available information on this provides a mixed picture. We have two broad measures of labor compensation. One, the employment cost index, is showing remarkably restrained increases of only 3¼ percent over the past year, up only slightly from the prior year, and this development would seem to belie tight labor markets. The other measure, compensation per hour, gives a higher reading of about 5 percent. However, this measure includes compensation methods like stock options that are more akin to profits than wages. So part of the strength in this measure may not actually indicate a tight labor market.

Still, given the probability of some tightness, we would need to see real GDP growth remain moderately below its long-run trend for a time to have confidence that the economy is heading for a soft landing with inflation continuing to move lower. The impetus for the needed moderate growth is likely already in train, given the cumulative effects of the 17 stepwise increases in the funds rate that began a couple of years ago. Since then, short- and intermediate-term interest rates have risen substantially. For example, Treasury bill rates are up by more than 3½ percentage points from mid-2004. It's true that corporate long-term rates are actually *down* by around ½ percentage point over this period, while conventional fixed mortgage rates are essentially unchanged. However, variable mortgage rates have risen along with short-term rates. The overall effect of such rate changes has been to reduce demand. Not surprisingly, the housing sector has been at the leading edge of the overall economic slowdown, and I'd like to turn my attention to that important sector now.

Nationally, growth in spending on residential structures—after adjusting for inflation—was quite strong during 2002 through 2005. The decline started toward the end of 2005

[1] See Bharat Trehan and Jason Tjosvold, "Inflation Targets and Inflation Expectations: Some Evidence from the Recent Oil Shocks," *FRBSF Economic Letter*, 2006-22, September 1, 2006. For a discussion of related issues, see John Williams, "Inflation in an Era of Well-Anchored Inflation Expectations," *FRBSF Economic Letter*, 2006-27, October 13, 2006.

and residential investment has fallen—in absolute terms—by a total of 13 percent, with especially steep drops over the last two quarters. In fact, during both of those quarters, this sector alone—which represents only a small fraction of U.S. real GDP—subtracted a hefty 1¼ percentage points from real GDP growth. Housing starts have followed a similar pattern, reaching a peak in January 2006 and then falling by roughly 40 percent through January of this year. That, of course, includes the headline-grabbing plunge for January announced last week.

Despite the continued weakness in housing construction, which as I said enters directly into the calculation of real GDP, there are some signs of stabilization in other aspects of housing markets, suggesting that construction activity may level out before too long. For example, home sales have steadied somewhat after falling sharply for a year or so. Considering this in combination with the continued drop in housing starts that I mentioned earlier, it is not surprising to find that inventories of unsold homes have begun to shrink. This development suggests that the process of resolving the imbalances between demand and supply in the housing market may be underway, and, as a result, we could very well see the drag on real GDP from housing construction wane later this year.

Of course, such a turn of events is by no means a given, because the improvements we've seen may just be temporary. For example, it is possible that they were related to a decline in fixed mortgage rates since the middle of last year, a development that probably supported home sales, at least to some extent. However, the decline in mortgage rates came as a bit of a surprise to me in a period when the FOMC maintained the funds rate target at 5¼ percent, especially in view of the widely discussed "conundrum" about why long-term interest rates were already so low.[2] Therefore, we can't count on further declines in mortgage rates to bring the housing market back.

In addition to concerns about weakness in housing construction, there has been worry that difficulties related to housing markets could spread to consumer spending more generally. Since consumption expenditures represent two-thirds of real GDP, even a relatively modest impact from housing markets on this big sector could put a noticeable dent in overall economic activity.

Up to this point, we haven't seen signs of such spillovers. Consumption spending has been well maintained, showing a robust growth rate for all of 2006. However, going forward, there are at least a couple of ways that spillovers from weakness in housing could depress consumer spending, and these channels bear watching. First, housing makes up a significant fraction of many people's wealth, so a significant change in house values can affect consumer wealth and therefore consumer spending. As you know, there have been fears about plummeting house prices. But so far, at least, house prices at the

[2] See Tao Wu, "The Long-Term Interest Rate Conundrum: Not Unraveled Yet?" *FRBSF Economic Letter*, 2005-08, April 29, 2005, and Glenn Rudebusch, Eric Swanson, and Tao Wu (2006), "The Bond Yield 'Conundrum' from a Macro-Finance Perspective," *Monetary and Economic Studies* 24 (S-1), 83-128.

national level either have continued to appreciate, though at a much more moderate rate, or have fallen moderately, depending on the price index you look at. Looking ahead, futures markets are expecting small declines in a number of metropolitan areas this year. While these modest movements are undoubtedly imparting less impetus to consumer spending now than during the years of rapid run-ups, their effects are not likely to be dramatic.

As a homeowner in the Bay Area myself, I've naturally taken a close look at the housing market here, so let me digress a moment to give you my reading on the situation. In the fourth quarter, sales of existing homes were down about 15 to 20 percent, and after several years of rapid appreciation, house prices barely budged in 2006. Builders responded to the demand slowdown accordingly, pulling fewer permits for new homes last year. However, here in Silicon Valley, some encouraging evidence of stabilization in the rate of homebuilding emerged late in the year.

I mentioned fears about plummeting house prices, and in this area, you don't need a long memory to understand why people have harbored them. In the first half of the 1990s, area home prices fell more than 10 percent. However, a key difference between then and now is the overall health of the local economy. For example, despite the slowdown in residential construction activity, conditions on the nonresidential side have improved, helping to keep overall Bay Area construction employment growing in 2006. And for employment overall, the pace of growth actually picked up a bit last year. Continued growth of this sort should help the adjustment in local housing markets proceed in an orderly fashion.

Returning to the national economy, housing market developments also could spread to consumer spending if enough homeowners experienced financial distress. For example, rising variable mortgage rates could strain some consumers' cash flow. What we find, however, is that, because of the rapid appreciation of home prices in prior years, most homeowners are sitting on a substantial amount of equity, a financial resource that they can fall back on. In particular, adjustable-rate borrowers with equity can avoid a rate reset by refinancing. Moreover, only a small fraction of outstanding variable rate mortgages are scheduled to be reset in each of the next few years.

Of course, financial distress could be a bigger problem for some borrowers who used so-called exotic financing—like interest-only loans, piggy-back loans, and loans with the possibility of negative amortization. These instruments are often designed to allow subprime borrowers into the market. In fact, there *are* signs of trouble for some households. Delinquencies on variable-rate mortgages to subprime borrowers have risen sharply since the middle of last year and now exceed 10 percent. But fortunately, delinquency rates for other types of mortgages—including all prime borrowers and even subprime borrowers with fixed-rate loans—have edged up only very modestly. I know that it's common to see newspaper stories about homeowners who have run into trouble, and those situations are, indeed, regrettable. From a national perspective, however, the group with rising delinquencies still represents only a small fraction of the total market, with little impact on the behavior of overall consumption.

A forward-looking view of the credit risks associated with subprime mortgages can be obtained from a new financial instrument related to these mortgages.[3] These instruments suggest a big increase in the risk associated with loans made to the lowest-rated borrowers, but little change in risk for other higher-rated borrowers. Based on these results, it appears that investors in these instruments expect the losses to be fairly well contained. Of course, a shift in market sentiment about the risk of some of these securities is always possible. Such a shift would have ramifications for mortgage financing and housing, likely through tighter credit standards and higher mortgage rates for certain borrowers. In fact, we already have seen some tightening among commercial banks in recent months.[4]

The bottom line for housing is that the concerns we used to hear about the possibility of a devastating collapse—one that might be big enough to cause a recession in the U.S. economy—while not fully allayed have diminished. Moreover, while the future for housing activity remains uncertain, I think there is a reasonable chance that housing is in the process of stabilizing, which would mean that it would put a considerably smaller drag on the economy going forward.

In addition to housing, weakness in auto production has slowed the economy during the past few quarters. The auto industry has felt the effects of high oil prices and people's growing demand for more fuel-efficient vehicles. That has been good news for some of the foreign automakers, but not such good news for U.S. automakers, for which SUVs and trucks have been a key source of strength. As the demand for these vehicles dropped, producers found themselves holding unsustainably high inventories. It's little wonder that they slashed production. These production cuts slowed overall real GDP growth in the U.S. last year. However, once the adjustment to a lower level of production is reached, probably in the not too distant future, this factor will cease to hold down growth in the U.S. economy.

Outside of housing and domestic autos, the rest of the economy has been doing quite well; that's why it might be called a "bi-modal" economy. I've already mentioned that consumer spending has been robust. Business demand also has been solid, fueled by high profits and relatively favorable financing conditions, leading to healthy growth in spending on business investment in structures as well as equipment and software. Growth in investment in high-tech goods has been especially strong and the outlook is favorable, as telecommunications companies expand their fiber-optics networks and businesses continue to improve their productivity by upgrading their IT equipment.

[3] Credit default swaps (CDS) on securities related to subprime mortgages.
[4] January 2007, Federal Reserve Board, Senior Loan Officer Opinion Survey (http://www.federalreserve.gov/boarddocs/SnLoanSurvey/200701/default.htm).

This growing demand for high-tech products has especially important implications for Silicon Valley and the whole Bay Area. The IT sector accounts for about 20 percent of total salary payments in the Bay Area, which is more than twice the nationwide share. Following extensive retrenchment in the wake of the "tech wreck" in 2000, the Bay Area IT sector has rebounded smartly, with substantial gains in company earnings, employment, and venture capital spending realized over the past year. This reflects not only the success of local companies at capitalizing on growing worldwide demand for IT products, but also their talents for developing innovative new products that create sales opportunities. This success has been especially evident on the software and services side of the industry, where solid employment gains and rapid wealth creation have been primary contributors to the area's economic revitalization.

For the national economy, the net impact of both the weak and healthy sectors I've described has produced moderate real GDP growth rates of 2½ and 2 percent in the second and third quarters of last year. The advance estimate of fourth-quarter growth showed a surge to a strong 3½ percent rate. However, recent monthly data have been on the weaker side. After smoothing out the volatility, my overall assessment is that economic activity has proceeded at a moderate underlying pace for close to a year now.

In other words, it looks as if the economy is pretty close to the "glide path" I mentioned before—since the first quarter of last year, growth has slowed to a bit below most estimates of the economy's long-run potential, and more recently the risk of an outright downturn has receded along with the early signs of stabilization of housing markets. At the same time, while core inflation remains on the high side of what I would like to see, it has begun to ebb modestly in recent months.

A key question for inflation going forward —and therefore, for monetary policy—is what happens if the drag from housing and autos disappears later this year? As I've stressed, with labor markets apparently somewhat tight, something else will need to slow to keep growth below potential.

One possibility is consumer spending. Growth in that sector seems likely to slow because of a diminishing impetus from household wealth, as house prices increase less rapidly and as past increases in interest rates impose a greater drag. In general, it wouldn't be surprising to see a slowdown in consumer spending given that the personal saving rate—the fraction of income *not* spent—has fallen to very low levels in recent years and even into negative territory! There are good reasons for much of the drop in the saving rate over the past decade, including the rapid growth in household wealth from housing and the stock market. Given the extremely low recent level of saving, it wouldn't be shocking to see some rebound in the saving rate. That said, the saving rate has been falling for more than a decade, so it's obviously risky to put too much reliance on an upswing this year.

In summary, I believe that a soft landing is the most likely outcome over the next year or two. However, I hope my remarks so far make it abundantly clear that there are sizeable risks to this forecast and that I am especially concerned about the upside risks to our inflation forecast.

These considerations play a key role in my views on monetary policy. I have supported the decision to hold policy steady at the current rate despite inflation remaining higher than I would like it to be. Let me be clear that I do want inflation to move down, but as I just indicated with my forecast, I believe policy may now be well-positioned to foster exactly such an outcome. Moreover, I continue to support the bias in policy toward tightening precisely because it gives due consideration to the upside risks to inflation.

I'm casting my statements about the outlook in very conditional terms because of the great uncertainty that surrounds any economic forecast. This uncertainty argues for policy to be responsive to the data as it emerges. The decision to keep policy on hold allows us more time to observe the data so that appropriate adjustments can be made to achieve our goals of maximum stainable employment and price stability.

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