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The U.S. Economy: Prospects and a Puzzle Revisited

Good evening, everyone. It's a pleasure to be here with you. I know that the Money Marketeers have a long and rich history, and I'm honored to be among the many distinguished speakers who have addressed you over the years.

Tonight I plan to discuss the prospects for the U.S. economy. I'd like to return to a theme that I discussed in a speech a few months ago and that has been on my mind ever since. It concerns a puzzling economic development. The puzzle, as I put it then, was: Why is the labor market apparently going gangbusters, while growth in real GDP has turned in only a middling performance? The reason I'd like to revisit the puzzle is that, in the intervening period, its mystery has deepened: economic growth has unexpectedly slowed from "middling" to a crawl, while the unemployment rate has actually inched *down* and employment growth has remained robust. These and other recent developments have not dramatically changed my mainline forecast for the U.S. economy over the next year or so, but they have significantly increased the risks to the outlook, both for growth and inflation. While I've revised down my forecast for economic activity for the first half of 2007, I still expect to see a moderate pace in the second half of the year. At the same time, much of the news pertaining to the first quarter has been disappointing, and has raised the downside risk for growth. I continue to think that inflation is likely to edge down over the year, but, with labor markets appearing to have

tightened further, rather than easing as I expected, the upside risks to this outlook have gotten bigger.

Before I begin to explain these points, let me note that my comments represent my own views and not necessarily those of my colleagues in the Federal Reserve System.

Going back a few months, the "middling" economic growth we had been seeing since the second quarter of last year was, in fact, not particularly surprising, considering the stance of monetary policy over the past couple of years. As this group well knows, the FOMC began raising the federal funds rate from a very low 1 percent back in mid-2004. After 17 stepwise increases, the funds rate reached 5¼ percent by June 2006, a level that I judged to be modestly restrictive. The Committee has held it at that level ever since.

The aim of these policy moves, to my mind, was to achieve an orderly slowing of growth to--and, for a time, below—its long-run trend. I anticipated that such a path for output growth would produce enough slack in the labor market to relieve potential inflationary pressures. Indeed, along with an expected reversal of transitory factors, a modest amount of slack would help to bring inflation down gradually to a more acceptable level than it had registered over the prior year.

Thus far, it looks as if things have shaped up pretty much as expected, at least as far as output is concerned. Real GDP growth registered 2 to 2½ percent rates in the final three quarters of 2006, somewhat below most estimates of the economy's potential growth rate at the time, although growth this year appears, thus far, to be notably weaker. Most of the impetus for growth has come from a robust performance of personal consumption expenditures; indeed, with the impetus from past increases in equity and

housing wealth, American consumers continued to spend more than they earned, and that resulted in a personal saving rate that fell even deeper into negative territory. The biggest drag on growth has come mainly from two sectors: residential construction and auto production. Since residential construction and the housing market more generally were—and are—such important factors in this story, let me take a few moments to discuss them in detail.

The cooling in the housing sector has, of course, been in part a response to a rise in financing costs. Although traditional fixed mortgage rates have actually fallen somewhat in recent years, rates on variable-rate mortgages have risen along with other short-term rates. I should note, however, that higher borrowing costs are not the only explanation; it's likely that the recent cooling also is a necessary correction in house prices after years of phenomenal run-ups that ultimately proved to be unsustainable.

Residential investment grew quite strongly for several years, but the pace of growth began to weaken toward the end of 2005. Since then, growth has turned negative. Indeed, the level of residential investment spending declined almost 13 percent in real terms during 2006, with especially steep drops over the last two quarters. In fact, during each of those quarters, this sector alone—which represents only a little more than 5 percent of U.S. GDP—subtracted a hefty 1¼ percentage points from real GDP growth.

The more forward-looking indicators of conditions in housing markets have been mixed recently. Housing permits fell sharply from the summer of 2005 through the summer of 2006, but have flattened out since then. Sales of new and existing homes have continued to fall. House prices at the national level either have continued to appreciate, though at a much more moderate rate than before, or have fallen moderately, depending

on the price index you look at. Looking ahead, futures markets are expecting small price declines in a number of metropolitan areas this year. Finally, and importantly, inventories of unsold new homes remain at very high levels, and these most likely will need to be worked off before we see a rebound in housing construction.

The latest twist in the housing sector story is the trouble involved with subprime mortgages. Hardly a day goes by without a news story about the financial difficulties now faced by borrowers and some large lenders in this market. Certainly, these problems warrant our close attention and raise significant issues for bank regulators and supervisors. After all, so-called exotic financing instruments—like interest-only loans, piggy-back loans, and loans with the possibility of negative amortization—were often designed to allow subprime borrowers into the market. So it will be important to find the balance that not only protects borrowers but also provides them opportunities to secure loans to buy homes and refinance mortgages.

The types of subprime loans that present the biggest problem are variable-rate mortgages. Delinquency rates on these loans have risen sharply since the middle of last year—they now exceed 11 percent—and there are indications that lenders are tightening credit standards for subprime borrowers. Looking more broadly across all types of mortgages, however—including prime borrowers and even subprime borrowers with *fixed-rate* loans—delinquency rates have remained low. While a tightening of credit to the subprime sector and foreclosures on existing properties have the potential to deepen the housing downturn, I do not consider it very likely that such developments will have a big effect on overall U.S. economic performance. I say this, in part, because these mortgages represent only a small part of the overall outstanding mortgage stock.

The bottom line for housing is that it has had a significant depressing effect on real GDP growth over the past six months or so. While I wouldn't be surprised to see it begin to turn around in the latter half of this year, I also wouldn't want to bet on it. In other words, housing remains a significant drag on the economy and a source of uncertainty in the outlook—much as it has for some time now.

However, two other developments *have* changed the risk profile of the economy. The first is something of a positive, in that the auto sector now appears poised to be less of a drag going forward. With the public demanding more fuel-efficient vehicles in the face of rising oil prices, U.S. automakers found themselves with large excess inventories of SUVs and trucks, so they cut back sharply on production last year. At this point, it appears that the adjustment to a lower level of inventories has been reached, and plans for auto production in the future look brighter.

The second development, unfortunately, is evidence of sluggishness in a new area—business investment in equipment, and, in particular, equipment outside of the reasonably strong high-tech area. The performance in non-high-tech equipment over the past nine months or so is surprising, since the business environment is marked by high profits, relatively favorable financing conditions, and growth in business output.

Part of the explanation for this sluggishness reflects what's happening in construction—given the slump in housing, it should come as no surprise that investment in construction-related equipment has fallen off. However, even if we ignore this category, business investment has still been weak.

One commonly heard explanation is "caution in the boardroom," as companies have felt the shocks of corporate scandals, terrorist attacks, war, and surging oil prices.

While there may be some truth to this explanation, it does seem to fly in the face of the rapid growth we've seen in employment, which—given the cost and disruption of hiring and then having to lay off workers—also should be restrained by caution about the future.

Another explanation for weak business equipment investment that may be more likely and that is a bit more troubling is the possibility that the trend rate of productivity growth has slowed from its very fast pace over the last five years or so. For 2000-2005, the estimated trend rate was a blazing 3 percent, but for 2006, the actual data on productivity growth came in at a rate of only 1-1/2 percent. Discerning the extent to which these new lower numbers reflect a short-lived, cyclical phenomenon, a downshift in the trend rate or both, is neither obvious nor straightforward.

To explore this point, let me put a little context around U.S. productivity growth. From the mid-1970s through the mid-1990s, the trend rate of labor productivity in the nonfarm sector rose relatively slowly, at only about a 1½ percent annual rate on average. Then, in the second half of the 1990s, trend productivity appears to have accelerated sharply, to about a 2½ percent annual growth rate. This upward shift frankly came as a surprise and generated reams of research, not to mention journalism touting the "New Economy." On the research front, there is a broad consensus that this acceleration was traceable to developments in information and communications technology. The tech industry itself registered remarkable productivity gains; furthermore, firms outside that industry benefited not only from increases in the new tech equipment but also from new "organizational capital." By this, I mean things like business models, production processes, and a trained workforce.[1] Take the so-called big-box retailers, like Wal-Mart

[1] See, for example, Sandra Black and Lisa Lynch , "Measuring Organizational Capital in the New Economy" (2005) http://ideas.repec.org/p/iza/izadps/dp1524.html, and Brynjolfsson et al.

and others, for example. Their success in using information technology to boost their retailing business did not merely involve buying computers. Instead, they had to consciously invest in knowledge about how to use information processing to better manage and, indeed, to reorganize their far-flung supply chains. In addition, when they reorganized processes, they also needed to retrain their workforce.

From 2000-2005, U.S. trend productivity growth is estimated to have accelerated again, as I mentioned, to around 3 percent. But productivity growth in the tech industry itself slowed down, and so did investment in tech equipment by firms that use it. Why, then, did productivity growth surge in this period, and what does the answer imply for productivity going forward? Here the stories are not so clear. One explanation begins with the notion that investment itself is disruptive, since firms have to divert resources to installing and learning to use the new capital. With less investment going on in the 2000s than in the late 1990s, there was less disruption, while, at the same time, firms continued to benefit from their earlier investments in reorganization. Taken together, these showed up as faster measured productivity growth.[2] According to this explanation, if firms have slowed investment not only in IT but also in new organizational capital, then future productivity growth may also slow. But it also leaves open the possibility that firms will find further opportunities for organizational investments to benefit from fast information processing, and these investments may bear fruit again.

"Intangible Assets: Computers and Organizational Capital" (2002) http://web.mit.edu/sloan-msa/Papers/2.3.pdf.

[2] Stephen D. Oliner, Daniel E. Sichel, and Kevin J. Stiroh, "Explaining a Productive Decade," *Brookings Papers on Economic Activity* (March 29-30, 2007) http://www3.brookings.edu/es/commentary/journals/bpea_macro/forum/200703oliner.pdf, and Susanto Basu and John Fernald, "Information and Communications Technology as a General Purpose Technology: Evidence from U.S. Industry Data," (forthcoming, *German Economic Review*).

Another explanation for the productivity surge in 2000-2005 is that it reflected severe profit pressures that forced firms to cut costs by restructuring, engaging in mergers, and so on.[3] Insofar as this explanation is at work, the cost-cutting resulted in one-time productivity gains and has not sown the seeds for faster productivity growth going forward.

Both explanations, then, are consistent with the possibility that trend productivity growth has slowed. However, I don't want to overstate the degree of any possible slowing. We are still talking about trend growth going from about 3 percent in 2000 to 2005—the figure I cited earlier—to between 2 and 2½ percent now. So, productivity growth still would be reasonably strong, just not as strong as over the prior decade. As I said, a lower trend rate of productivity growth would help explain the sluggishness in business investment and put upward pressure on inflation for a time.

Beyond this, however, it could have implications for crucial fundamentals in the economy. It could lower the trend growth rate of real GDP; indeed, many forecasters are currently making modest downward adjustments to estimates of trend real GDP growth into a range of 2½ to 3 percent. Likewise, because a lower trend rate of productivity growth reflects a lower return to capital, it also implies a lower neutral level of the federal funds rate.

To sum up the story on output, real GDP advanced at moderate rates of 2 to 2½ percent in the final three quarters of last year. Recent monthly data show a more sluggish performance in the first quarter. My best guess is that real GDP will pick up the pace a

[3]See: Oliner et al., op. cit.; Dale W. Jorgenson, Mun S. Ho, and Kevin J. Stiroh, "A Retrospective Look at the U.S. Productivity Resurgence," unpublished paper, 2007; John Fernald, David Thipphavong, and Bharat Trehan, "Will Fast Productivity Growth Persist?" *FRBSF Economic Letter*, 2007-09, http://www.frbsf.org/publications/economics/letter/2007/el2007-09.html.

bit in 2007, as growth in spending on housing and equipment turns up. Personal consumption expenditures should advance solidly, but, given the recent increases in energy prices and the reduced impetus from housing and equity wealth, the pace is likely to be noticeably slower than in 2006. Taking all of these factors into consideration, my forecast for real GDP growth in all of 2007 is modestly lower than it used to be, and I think my comments should make it clear that there are downside risks to this outcome, since it depends on near-term rebounds in both housing and business investment in equipment. So, as a policymaker, these are things I will keep a close eye on.

Moreover, even if these downside risks do not materialize and my "best guess" scenario for economic activity comes through, there is an additional layer of concern. Another key part of the desired "soft landing" would involve the emergence of enough slack in labor markets to help bring inflation down from where it currently stands. This is where I revisit the puzzle I posed at the beginning: if the economy is even *more* lackluster than before, why is the labor market *still* going gangbusters? The latest labor market data show payroll employment growing steadily and at a robust pace. Moreover, the unemployment rate has declined by three-quarters of a percentage point over the past year and a half and now stands at 4.4 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. In other words, if labor markets are indeed on the tight side, and if they remain there, then there may be reason for concern about building inflationary pressures.

In my earlier look at the puzzle I discussed a set of benign possible explanations and a set of worrisome ones. For example, one benign, and likely, possibility is that part

of the disconnect between the unemployment rate and output growth will be resolved by a little more patience. Labor markets adjust to output growth with a lag, and that lag is not always consistent over time. Another benign possibility is that the unemployment rate may be overstating the tightness of labor markets. There are a variety of other labor market indicators, and some suggest less tightness than the unemployment rate. For example, the Conference Board index of job market perceptions, which is based on a survey of households, suggests that labor markets are only very slightly on the tight side. Furthermore, measures of labor compensation do not all line up with tightness in labor markets. In particular, the employment cost index shows remarkably restrained increases of only 3 percent over the past year, about the same as the year before. These possibilities are much as they were a few months ago.

The worrisome possibilities that I considered back then, however, have become, unfortunately, more worrisome and could indicate building inflationary pressures. They revolve around the question of whether the apparent disconnect between labor markets and output reflects a misreading of how close output is to its long-run capacity. One possibility is that output is actually growing faster than the data show. In fact, there are some indications to that effect. An alternative measure of aggregate activity—one that looks at total income generated in the economy—suggests a higher level of activity than the traditional measure of GDP, which looks at production. If the income measure ends up being more accurate than the production measure, then the decline in the unemployment rate this year might not turn out to be surprising at all. Indeed, this would mean that both labor and product markets have been tight, which would add to our estimate of inflation pressures.

The other possibility is the one that I mentioned in connection with a possible slowdown in trend productivity growth: that is, that output's long-run capacity may be lower than most economists have estimated. Slower growth in trend productivity would translate directly into slower growth in the trend growth rate of real GDP. The implication for inflation is that real GDP would have to grow at a slower rate than we previously thought was necessary to generate more slack.

In outlining these explanations for the disconnect between output and unemployment, my goal has been to highlight the added weight I am now giving to the worrisome side of things. At the same time, it's important to note that I do not view these explanations as mutually exclusive—it is certainly possible that more than one could be in play. Moreover, I confess up front that I do not see a way to know which explanations carry more weight. What I do know is that the intensification on the worrisome side means that there is more uncertainty about the state of underlying inflationary pressures, so it will be especially important to monitor the incoming data very closely.

This uncertainty is a special concern when we look at the inflation data over the past year or so, which has been disappointing. Over the past year, our main measure of consumer inflation—the price index for personal consumption expenditures excluding food and energy, or the core PCE price index—has increased by 2.4 percent, which is higher than I would like to see.

While the possibility of slower underlying productivity growth raises uncertainties about how to interpret the puzzle and the associated implications for inflation, it also has a more direct and distinctly pessimistic implication for inflation. In particular, a slowdown in the trend rate of productivity growth means that firms' trend

unit labor costs will rise more rapidly unless compensation growth declines in tandem. Absent such a moderation in compensation growth, firms may adjust to more rapid cost pressures by passing them into the prices consumers pay for their products, placing upward pressure on core inflation, at least for a time. However, there is one mitigating factor: the markups firms set above unit labor costs are currently at very high levels. So, even if trend productivity growth has slowed, firms do have the room to absorb the increases in unit labor costs without raising the prices of their products. It remains to be seen how all of this will play out.

Furthermore, I believe there are two other important features of the economy that may well work in the direction of bringing inflation down. One of these is inflation expectations, which appear to have been well anchored for at least 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. For example, in the face of the large oil price increases we've seen in recent years, this credibility shows up in the stability of survey and market measures of inflation expectations looking ten years ahead.[4] Statistical analysis of the behavior of core inflation also lends some support to the view that inflation expectations have become anchored. Admittedly, this evidence is drawn from a relatively small sample, but it's important because, if it holds up, it implies, that core inflation has become more likely to revert to its long-run average, which, over the past decade, is around 2 percent.

[4] 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.

The second favorable feature, which I have already alluded to, is that core inflation may have been elevated partly because of some transitory factors that are likely to unwind over the next year or so. One is oil prices. Although core inflation, by definition, excludes energy prices, they still may affect core inflation to the extent that they are passed through to the prices of other goods and services. Energy prices have risen recently, but they are still well below their peaks of mid 2006. Over the two and a half years before that, energy prices more than doubled, and this probably put some upward pressure on core inflation. However, the effects of energy price changes on inflation are inherently temporary, and these upward pressures are likely to dissipate in 2007.

Another transitory factor is substantial upward pressures on rents, including imputed rents on owner-occupied housing that enter importantly into the calculation of the price of housing services, and therefore, consumer inflation. Over the last year, rents have been rising at an unusually rapid rate as potential buyers, increasingly being priced out of the housing market, have shifted from owning to renting. As rents adjust to more normal levels relative to house prices, I anticipate these increases will taper off, also lowering inflation.

To sum up my inflation forecast, then, I do expect the dissipation of upward pressure from energy prices and rents and the beneficial effects of anchored inflation expectations to bring inflation down modestly over 2007. However, I also am keenly aware that this pattern has yet to show up in the data. The inflation situation remains uncertain and, in particular, there are upside risks to my outlook, especially having to do with the situation in labor markets.

From my perspective as a monetary policymaker, I would say that, in these circumstances, with heightened risks to both growth and inflation, the best course for policy is watchful waiting. I think that the current stance of policy is likely to foster sustainable growth with a gradual ebbing of inflation over time. However, the inflation risks are skewed to the upside. For this reason, the FOMC's press release following its March meeting notes that "the Committee's predominant policy concern remains the risk that inflation will fail to moderate as expected." I believe it's important to remain focused on bringing inflation down gradually over time—not only because price stability is desirable in its own right, but also because a credible commitment to keeping inflation low and stable is necessary to ensure that inflation expectations remain well-anchored.

We cannot afford to go back to a world similar to the 1970s, where shocks that should have had only a transitory impact on inflation—whether due to oil prices, rents or movements in the dollar—shift longer-term inflation expectations and touch off a self-fulfilling wage-price spiral. The Fed's commitment over the last two decades to keeping inflation low has fundamentally changed inflationary psychology and that has permitted both inflation and unemployment to be low and stable. Keeping inflationary expectations well anchored is essential to good outcomes for the economy overall.

At the same time that we must keep inflation moving down over time, we must be careful not to tighten too much, thereby posing unnecessary risks to continued expansion. An "asymmetric policy tilt" seems appropriate given the risks to inflation. However, the complexities of the current situation—including uncertainties concerning the behavior of output and employment, as well as growing downside risks to economic growth and the possibility that the neutral level of the funds rate has been lowered by a productivity

slowdown—make it appropriate for policy to retain considerable flexibility in responding to emerging data. The statement thus emphasizes that “Future policy adjustments will depend on the evolution of the outlook for both inflation and economic growth, as implied by incoming information.” What all of these considerations add up to is that the stance of monetary policy will undoubtedly need to be adjusted in ways that are dictated by shifts in our forecasts for inflation, output, and employment in light of incoming data.

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