

Presentation to the Sacramento Economic Forum, Sacramento, California  
By John C. Williams, President and CEO, Federal Reserve Bank of San Francisco  
For delivery on May 13, 2016

### **Now That Winter Is Over, Springtime Is on My Mind**

It's a special pleasure to be back home in Sacramento. I grew up here and my family has deep Sacramento roots. It's also great to be here this time of year when the weather is just right; I won't lie, I don't miss the hottest days of July and August.

Today I'll give an overview of the economy, about where we are and where we're headed, and address some of the issues that have been getting a lot of attention lately, namely the weak reading of GDP growth in the first quarter and very low productivity growth. Before I go any further, I should pause to note, as always, that the views I express here today are mine alone and do not necessarily reflect those of anyone else in the Federal Reserve System.

#### **Employment**

With that out of the way, I'll turn first to our employment mandate. And here, a lot of people do share my view that the labor market is looking very good. There are a multitude of indicators I look at, and pretty much all of them say we're at or very near full strength.

Unemployment has reached what I see as its natural rate—that's the optimal rate we should expect in a healthy economy—at 5 percent. I see it dipping even further below that benchmark as the year unfolds. Job openings is another data point, as is the rate at which people are quitting. That may seem odd as an indicator, but the willingness of workers to leave their jobs is actually a good way to gauge people's perceptions of the job market. Another is the difficulty companies are facing in hiring—with a strong labor market, there are more jobs available, and businesses have to compete for talent. Even one area that has caused some concern, the declining labor force

participation rate, is now close to its longer-term trend.<sup>1</sup>

## **Inflation**

Turning to the other side of our mandate, inflation has been persistently below the Fed's 2 percent target over the past several years. Recently, that's been due to transitory forces, for instance, the strengthening dollar and falling energy prices. But those effects have been dissipating. To cut through some of the noise, it's useful to look at measures of inflation that strip out volatile prices and provide a clearer view of the underlying trend. One such measure is core PCE inflation, which excludes food and energy prices. It rose 1.6 percent over the past 12 months. Another such measure is the trimmed mean, which rose 1.8 percent over the past year. Either way you look at it, inflation has been moving back up to our goal. With the economy continuing to improve and special factors holding inflation down diminishing, I see inflation rising to meet our 2 percent goal in the next two years.

## **GDP and seasonality**

As for gross domestic product, or GDP, I expect growth to be 2 percent this year. This is the time of year when we look back at first-quarter growth and get worried about how low it was. It's also the time of year that economists start talking about "residual seasonality"—that is, they point out the recurring pattern of slow GDP growth in the first quarter over the past several years and reassess the reasons for this anomaly. The takeaway from this analysis is that first-quarter GDP data tend to paint an overly negative picture and aren't the best way to assess the economy's underlying momentum.<sup>2</sup>

Although the published data should account for usual seasonal patterns, for myriad wonky reasons that would take too much time—and too much of your patience—to explain, they

---

<sup>1</sup> Aaronson et al. (2014).

<sup>2</sup> Rudebusch, Wilson, and Mahedy (2015) and Rudebusch, Wilson, and Pyle (2015).

don't. To correct for this problem, my staff has added a second round of adjustment to get a more accurate number. Adjusted in this way, real GDP actually grew over 2 percent in the first quarter. This makes more sense when we look at the rest of the economy—such as the labor market—and is in line with what I'm hearing from the business community, that they didn't see significant drop-offs at the beginning of the year.

## **Productivity**

Turning to an issue that's been getting a lot of attention: Productivity growth has been exceptionally weak over the past five years, which has caused some concern and some confusion. We're seeing an otherwise healthy economic expansion that makes the U.S. virtually unique among advanced economies, and we're running a labor market that's flashing green on just about every measure. So why is productivity growth so low?

Productivity is a notoriously tricky thing to measure, so one oft-repeated question is whether all areas of the economy are being accurately assessed—for instance, the tech world. Are we using outdated models to try to assess the next-generation engine of growth? The short answer is “no.” A recent study shows that mismeasurement of innovation does not account for the slowdown in productivity growth in any meaningful way.<sup>3</sup>

In that case, what *is* going on? Productivity is the simple measure of output per unit of input. That is, how much work did it take to produce a unit of a particular good or service? In the past, great spurts of productivity have resulted from game-changing innovation like the steam engine, electricity, or the advent of the modern production line. The last instance was the first tech boom, which ushered in a decade of strong productivity growth starting in the mid-1990s.<sup>4</sup> I know the recent productivity slowdown seems confusing when we're sitting near the “Tech

---

<sup>3</sup> Byrne, Fernald, and Reinsdorf (2016).

<sup>4</sup> See Gordon (2016) for historical discussion of U.S. productivity growth.

Coast”; in Silicon Valley, it feels like the possibilities are endless and the world is changing at an ever-faster rate.

So why aren't we seeing another productivity boom? The difference between now and the last tech boom is that, in the mid-1990s, businesses throughout the economy used those new technologies to change how and what they produced. They became much more efficient and spread their reach. In the more recent tech boom, a lot of the innovation and new products are directed at our leisure time, which may enrich our lives, but doesn't have the same groundbreaking effect on how businesses operate.

Of course, there may be a revolutionary invention or technology just around the corner. History has shown that we fail spectacularly to predict when we'll next turn it up to 11. But in the meantime, it's more likely than not that slow growth is both real and here to stay. And while the days of 2½ to 3 percent growth are behind us, at least for the foreseeable future, it isn't the end of the world. We can still run a strong economy. GDP grew at 2 percent last year, we added 2¾ million jobs, and I forecast a 2016 that looks a lot like 2015, with continued employment gains, steady GDP growth, and progress on our inflation goal.

### **Monetary policy**

So what does all this mean for monetary policy?

The Fed's monetary policy committee, the FOMC, has indicated that we expect to raise rates gradually, and we have made that abundantly clear in our communications. We took the first small step with a modest rate hike in December, and the future pace will be, as we've said repeatedly, gradual and data dependent. We don't want to be the guests who stayed too long, but we don't want to jump off a cliff either.

One other issue that has been getting some attention is what we're planning on doing with our sizable balance sheet, which swelled to some \$4 trillion after three rounds of quantitative easing. We have a ways to go before we start to unwind it, and it won't happen until normalization of the funds rate is well under way. After that, our plan is to shrink the balance sheet "organically," if you will, through the maturation of the assets. It's going to take at least six years to get the balance sheet back to normal, which is in keeping with the overall approach of removing accommodation gradually.<sup>5</sup>

What's important about this, and what's music to the ears, is that this is essentially the move back to normal. Monetary policy is going back to the boring basics.

### **Sources of growth**

That brings me to a central point, which is to recognize what monetary policy can and can't do. Our job is to keep the economy on track, and meet our employment and inflation goals. And we have a limited tool kit to do that. People shouldn't confuse monetary with fiscal or other policy.

There are ways to spark growth and innovation. But it will require investments in education, training, safer neighborhoods, infrastructure—the things we need to build human capital. We can't do this using monetary policy. They are issues that must be met at the local, state, and federal level, and are fundamentally in the legislative realm.

While all the labor market indicators look good on a macro level, I know it's not the same for everyone. The euphoria in San Francisco generally exits the freeway before it makes it out to Highway 99 in the Central Valley. Some places continue to struggle, because there are structural or long-term problems that can't be fixed by interest rates. They were there before the recession

---

<sup>5</sup> Carpenter et al. (2015).

and they're still there today.

Likewise, if productivity is waiting for the next great invention, we need to invest in the education of the next generation of innovators. If we want a population that continues to see its prospects and paychecks rise, we need to be sure they have access to high quality schooling.

I can't speak for legislators, and I harbor a fantasy that if I don't tell elected officials how to do their jobs they won't weigh in on mine. But I do know the data, and they say that investing in early childhood and going to college have very high returns.

Research shows a direct correlation between the quality of a child's neighborhood and income later in life.<sup>6</sup> And if you remember just one number, make it this: 300,000. That's how much more a kid who's moved from public housing into a lower-poverty area can expect to make in a lifetime.<sup>7</sup>

As for the benefits of getting a college degree, we know that there's an average annual income gap of about \$58,000 between households with two college-educated earners and those with two high school educated earners.<sup>8</sup> A college education has returns more than twice that of stocks and about five times more than bonds.<sup>9</sup> And while it is a long-term investment, the average breakeven period is around 10 years.<sup>10</sup>

College has a direct link to economic mobility. If you're in the lower 80 percent of the earnings distribution, a college degree gives you about a 30 to 40 percent chance of reaching the top 20 percent. But without one.... The bottom quintile on the earnings scale has less than a 5 percent chance of winding up in the top quintile without a college degree.<sup>11</sup>

---

<sup>6</sup> Chetty and Hendren (2015).

<sup>7</sup> Chetty, Hendren, and Katz (2016).

<sup>8</sup> Autor (2014).

<sup>9</sup> Abel and Deitz (2014).

<sup>10</sup> Daly and Cao (2015).

<sup>11</sup> Daly and Cao (2015).

Like I said, I'm not an elected official, just a guy who likes data. But the data are convincing.

### **Conclusion**

In any event, from the perspective of a monetary policymaker, we've been on a long road back from the recession. There are always uncertainties and numerous challenges before us, but overall, things are definitely looking good. Thank you.

## References

- Aaronson, Stephanie, Tomaz Cajner, Bruce Fallick, Felix Galbis-Reig, Christopher Smith, and William Wascher. 2014. "Labor Force Participation: Recent Developments and Future Prospects." *Brookings Papers on Economic Activity*, Fall, pp. 197–255. [http://www.brookings.edu/~media/projects/bpea/fall-2014/fall2014bpea\\_aaronson\\_et\\_al.pdf](http://www.brookings.edu/~media/projects/bpea/fall-2014/fall2014bpea_aaronson_et_al.pdf)
- Abel, Jaison, and Richard Deitz. 2014. "Do the Benefits of College Still Outweigh the Costs?" Federal Reserve Bank of New York, *Current Issues in Economics and Finance* 20(3). [https://www.newyorkfed.org/research/current\\_issues/ci20-3.html](https://www.newyorkfed.org/research/current_issues/ci20-3.html)
- Autor, David H. 2014. "Skills, Education, and the Rise of Earnings Inequality among the 'Other 99 Percent.'" *Science* 344(6186, May 23), pp. 843–851.
- Byrne, David M., John G. Fernald, and Marshall B. Reinsdorf. 2016. "Does the United States Have a Productivity Slowdown or a Measurement Problem?" *Brookings Papers on Economic Activity*, conference draft (March). <http://www.brookings.edu/about/projects/bpea/papers/2016/byrne-et-al-productivity-measurement>
- Carpenter, Seth, Jane Ihrig, Elizabeth Klee, Daniel Quinn, and Alexander Boote. 2015. "The Federal Reserve's Balance Sheet and Earnings: A Primer and Projections." *International Journal of Central Banking* 11(2, March), pp. 237–283. <http://www.ijcb.org/journal/ijcb15q2a7.htm>
- Chetty, Raj, and Nathaniel Hendren. 2015. "The Impacts of Neighborhoods on Intergenerational Mobility: Childhood Exposure Effects and County-Level Estimates." Working paper, Harvard University (May). <http://scholar.harvard.edu/hendren/publications/impacts-Neighborhoods-Intergenerational-Mobility-Childhood-Exposure-Effects-And>
- Chetty, Raj, Nathaniel Hendren, and Lawrence F. Katz. 2016. "The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment." *American Economic Review* 106(4, April), pp. 855–902.
- Daly, Mary C., and Yifan Cao. 2015. "Does College Pay?" In *Does College Matter?* Federal Reserve Bank of San Francisco 2014 Annual Report. <http://sffed-education.org/annualreport2014/#college-essays/does-college-pay>
- Gordon, Robert J. 2016. *The Rise and Fall of American Growth: The U.S. Standard of Living since the Civil War*. Princeton, NJ: Princeton University Press.
- Rudebusch, Glenn D., Daniel J. Wilson, and Tim Mahedy. 2015. "The Puzzle of Weak First-Quarter GDP Growth." *FRBSF Economic Letter* 2015-16, May 18. <http://www.frbsf.org/economic-research/publications/economic-letter/2015/may/weak-first-quarter-gdp-residual-seasonality-adjustment/>
- Rudebusch, Glenn D., Daniel J. Wilson, and Benjamin Pyle. 2015. "Residual Seasonality and Monetary Policy." *FRBSF Economic Letter* 2015-27, August 24. <http://www.frbsf.org/economic-research/publications/economic-letter/2015/august/residual-seasonality-and-monetary-policy/>