



## *Considering the Routes to a Policy Destination*

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I am happy to be with you this evening. I appreciate your warm welcome, and your invitation to join the long and distinguished line of individuals who have addressed the Money Marketeers over the decades.\*

I have always taken some delight in Yogi Berra quotes. As a Red Sox fan, I could always hope that garbled metaphors by the legendary Yogi would be as confusing to the players as they were to the public, which might translate into opportunities when the Red

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\* *Of course, the views I express today are my own, not necessarily those of my colleagues on the Board of Governors or the Federal Open Market Committee (the FOMC).*

Sox came to New York. Alas, in the early going this season it is not the Yankees that seem confused.

Yogi Berra was not only a great catcher and manager, but also an astute observer of the obvious. If he were to summarize this talk he might suggest a title like “Knowing Your Destination is a Good Start in Getting Where You Are Going” or some other derivation of what I believe is his actual quote: “You've got to be very careful if you don't know where you are going because you might not get there.”

When setting monetary policy, it is very important to have a clear idea of where you want the economy to go. And fortunately, there is now much more transparency about the Federal Open Market Committee's (FOMC's) expected destination, because the FOMC releases its long-term projections for inflation and unemployment. Unfortunately, however, actually reaching our desired destination will prove challenging and involve choices, as I will discuss this evening.

At our January meeting, the central tendency of the FOMC members' long-run projections for unemployment was 5.0 to 5.2 percent, and for inflation (measured by the personal consumption expenditures price index or PCE) was 1.7 to 2.0 percent. At present, both unemployment and inflation diverge significantly from these longer-term goals, with the March unemployment rate at 9.7 percent, and core PCE inflation over the past year at 1.3 percent. In such circumstances, one might think that the current path of monetary policy would be particularly straightforward.

Unfortunately, just knowing your destination doesn't get you there. To reach your destination you need to know *how* you want to get there. If I plug a destination into my new GPS device, it asks whether I want the quickest route, or the geographically shortest route, or a route that meets some other criteria. The quickest route is likely to involve highways, but may cover more miles. The shortest route may take side roads that reduce distance and save gas, but take substantially more time. And, of course, you may run into traffic or construction that forces you to adapt your route.

When setting monetary policy there may be a variety of paths you can take to reach the destination. For instance, aggressive pursuit of accommodative monetary policy by the Fed and stimulative fiscal policy by Congress and the Administration might get us more quickly to our desired destination – but could enlarge the deficit or risk igniting inflation expectations. Alternatively, aggressive pursuit of less accommodative policies – that is, removing monetary and fiscal stimulus sooner rather than later – could result in a more extended period of underutilized resources; or worse, significantly increase the length of the journey to our ultimate destination.

Right now, we are far from our destination, and the rest of my remarks will focus on selecting among the alternate routes to our objective.

The economy is currently beginning to recover from what many are calling the Great Recession. While real GDP began to increase in the third quarter of last year, growth so

far has been insufficient to improve conditions much in the labor markets. This unfortunate reality can be seen in **Figure 1**, which shows the employment-to-population ratio over the past 30 years with the shading representing recessions. The decline of about five percentage points in the employment-to-population ratio in this recession is striking, as many workers have either become unemployed or dropped out of the work force.

While it is not uncommon for the employment-to-population ratio to decline in a recession, **Figure 2** shows how dramatic the decline has been in *this* recession, compared with previous ones.<sup>1</sup> The loss of jobs has been particularly acute in construction and manufacturing. The severity of the job losses in these male-dominated industries is one of the reasons that males in some age groups have experienced such a significant decline in their employment-to-population ratio, as shown in **Figure 3**. For example, the March unemployment rates for males between the ages of 20 and 24 was 18.4 percent, more than 5 percentage points higher than for females in the same age group.

The sharp reduction in the ratio of employment to population highlights our challenge – achieving a full recovery will require creating jobs for those currently unemployed and actively seeking work, those entering the labor force as the population grows, and those likely to return to the labor force once jobs become more available. Employing all these workers within a reasonable period of time will require very strong economic growth.

The question is, how likely is that?

**Figure 4** shows the growth rate in each of the first three years of the last three recoveries, as well as the average rates for all three recoveries. The most recent two recoveries were quite slow to get started, but picked up steam over time. This is the pattern projected in most forecasts for this recovery.

Over the past three quarters, GDP has increased 3.7 percent.<sup>2</sup> However, some of the growth resulted from temporary rebalancing of inventories by businesses, as suggested by **Figure 5**, which shows that the percent change in real final sales was quite a bit smaller than the percent change in GDP. The gap between them would be inventory rebuilding.

Most private forecasts expect growth in the next four quarters to be fast enough to begin to make more improvement in the labor market. My own expectation is consistent with this. As financial headwinds subside, and consumers and businesses gain more confidence in the recovery, expenditures that have been deferred will be made – and we should begin to see stronger economic growth.

Despite this forecast of an improved outlook, we will need *very* strong growth if we are to return to 5 percent unemployment in a reasonable time frame. Economists frequently use a rule of thumb, called Okun's Law, to characterize the relationship between output growth and unemployment. According to Okun's Law, if the economy grows one percentage point faster than its potential for one year, the result will be a decline in the unemployment rate of approximately one-half of a percent. Of course, I would highlight

that this is a rule of thumb, and that the relationship is more complicated than this and, of course, subject to error.

But using the simple rule of thumb implied by Okun's Law, the left side of **Figure 6** shows the rates of GDP growth necessary to return unemployment to 5 percent over different time frames. The chart highlights that we need several years of very strong growth to reach 5 percent unemployment. For example, to reach 5 percent unemployment by the end of 2013, real GDP growth would have to average 5 percent per year.<sup>3</sup> Such a growth rate has some historical precedent, as shown on the right side of the chart, but it is much faster than the growth rate in the past two recoveries. And to reach 5 percent unemployment by 2015 would still take growth averaging 4.2 percent per year – considerably faster than the average rate of growth after the 1991 and 2001 recessions.

Given the need for very rapid growth to get unemployment back to 5 percent, let me pose an oversimplified question – why would policymakers *not* keep monetary policy very accommodative, and fiscal policy very stimulative, until we had a sustained growth rate that brought the economy much closer to full employment? At least on the monetary side, one reason might be concern among policymakers that rapid growth would be inflationary.

To explore that, let's turn to **Figure 7**, which shows the total and core inflation rates, measured by changes in the CPI, with recession shading. What the chart shows is that inflation has declined in each recession, including this so-called Great Recession. It also

highlights that inflation tends to continue falling in the early stages of a recovery. **Figure 8** shows the change in the inflation rate from the business cycle peak. From the peak (shown at zero on the horizontal axis) the inflation rate is very restrained, and generally negative, for many months. With substantial excess capacity in the economy during the early stages of a recovery, workers don't tend to demand higher wages, and firms don't feel at liberty to substantially increase prices. Since the Great Recession has resulted in substantial excess capacity, it would be unusual to see increases in the inflation rate in the early stages of this recovery.

However, while inflation does not normally increase in the early stages of a recovery, some economic observers may be concerned that this recovery will be different, because of the unusual actions that the Federal Reserve needed to take. As you know, the Federal Reserve took extraordinary measures to stabilize the financial system – measures that were critical to setting the stage for the current recovery. **Figure 9** depicts the additions to the central bank's balance sheet from these temporary operations. As you can see in the chart, the liquidity facilities that we set up to restore more effective financial market functioning have wound down. At the same time, however, in response to the severity of the economic recession the Federal Reserve decided to expand its purchases of mortgage-backed and agency securities. These purchases were undertaken to improve market functioning in the mortgage market, and even more importantly, as a way to reduce a key interest rate at a time when many short-term interest rates were close to, or at, the zero lower bound.

The purchase program ended in March, and these balances will naturally be dropping over time as households prepay mortgages, sell their homes, or refinance. This decline in our balance sheet will actually occur without the Fed taking any specific actions. But it will occur slowly, and absent any action of the Fed's part, the balance sheet will remain elevated for years.

This expansion of the Federal Reserve's balance sheet raises concerns for some observers and commentators. An important side effect of our asset purchases has, necessarily, been a dramatic swelling of so called excess reserves in the banking system. When the central bank purchases assets, it credits the selling institution with reserves. Over time, banks could choose to lend out these reserves, which would turn the reserves into broader money – and a rapid expansion of the broader money supply would be inflationary.

However, as **Figure 10** suggests, the current problem is not a rapid expansion in lending and the money supply. In fact, quite the opposite; banks have been reluctant to lend. Many have taken significant losses that have drained their capital; and, at the same time, the financial condition of many potential borrowers is worse than before the recession.<sup>4</sup>

Were that situation to change and bank lending to accelerate, the Federal Reserve could drain the excess reserves from the banking system. We have a variety of tools. We could sell some of our long-term assets, thereby increasing longer-term interest rates. We now pay interest on reserves, and that rate could be increased to discourage bank lending. The size of our balance sheet, the composition of the balance sheet, and our short-term interest rate target are all instruments that we have available to reach our destination of

full employment with stable prices. Fundamentally, decisions about shrinking our balance sheet – like decisions to tighten interest rates – should be conditional on economic conditions.

Some analysts warn of rapid inflation arising from the expansion of the Fed's balance sheet; but these forecasts have not been borne out. In fact, despite the buildup in excess reserves, the inflation rate has been falling – and I expect this trend to continue over the near term. The experience in both Japan and the United States is that after a banking crisis, excess reserves have not been inflationary in the short term. Of course, once the banks have recapitalized and economic resources are more fully utilized, we would not want to have a large stock of excess reserves. Again, as noted, we have a variety of tools to remove excess reserves at a time when that becomes appropriate.

As a result, I agree with many forecasters who expect disinflation in the near term. The substantial excess capacity in labor markets that I mentioned earlier has caused compensation to decline quite markedly (see **Figure 11**). Because employee compensation is the main cost component for most companies, lower labor costs enable businesses to improve profit margins without substantial price increases – particularly as the demand for goods and services improves.

This brings us back to Yogi Berra, who famously said, “When you come to a fork in the road, take it.” At times, a fork in the road is exactly what confronts monetary policymakers. We would face a fork, for example, if inflationary pressures were building

*despite* a high unemployment rate. In this case, the choice between restraining inflation and supporting employment is a difficult one, and the policy decision becomes more complicated. However, with employment well below the level of full employment, and disinflation continuing to move us away from my own inflation target of 2 percent, one does not currently need to make such trade-offs.

Another possible complication could occur if very low interest rates were causing excessive, leveraged bets that were inflating the price of assets that have macroeconomic importance. While we need to be vigilant against the buildup of asset bubbles, there is little evidence of such a problem now. Many financial institutions are still deleveraging – a factor in why we are seeing too little lending rather than too much. Real estate can be a very important asset because it serves as collateral for many loans. However, in the current situation both residential and commercial real estate are, at best, stabilizing.

Even if we *were* to see asset prices rising, it is not obvious that somewhat tighter interest rates will make a significant difference. A more targeted approach would be to examine whether supervisors should require tighter lending standards, or higher capital requirements, in areas where asset prices are appreciating rapidly. This would make sense from the perspective of good risk management – if institutions hold assets that appreciate quickly, they should retain sufficient capital and be vigilant in credit standards to insure that they can weather a quick reversal in asset prices. Raising short-term interest rates because of exuberance in one market is a blunt, and possibly ineffective, tool against the exuberance of investors in a particular asset. As a result, in my view,

short-term interest rate-setting is better suited for calibrating the growth in the overall economy, rather than focusing on a particular asset class.

### **Concluding Observations**

In sum, while the incoming economic data have certainly been more positive of late, we remain far from our “stated” destination. Even with rapid growth in the economy, spurred by accommodative monetary policy and stimulative fiscal policy, it is likely to take years before we approach the growth and inflation rates that would really reflect achievement of the two elements of the Federal Reserve’s dual mandate.

The economy, while in a much better place than a year ago, is still susceptible to negative shocks. Serious fiscal problems loom for state and local governments, the U.S. government, and governments around the world – particularly those that have expended large sums of money to recover from this financial crisis and recession. Clearly over time we need to have much more sustainable levels of budget deficits, at all levels of government, here in the U.S. and abroad.<sup>5</sup> However, I would just note that rapid movement to fiscal austerity, like rapid removal of monetary accommodation, could of course significantly delay the time it takes to reach full employment.

While financial markets have improved significantly, real estate problems, bank closures, and significant non-performing loans on the books of many banks continue to provide financial headwinds to the recovery. And clearly – as the headlines of the past week have

highlighted – financial problems abroad still have the potential to result in slower U.S. exports, and may hold potential further problems for global financial institutions.

In sum, my view is that with inflation expectations stable, core PCE inflation rates declining, and significant excess capacity in the economy, accommodative monetary policy remains appropriate.

Thank you.

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<sup>1</sup> Of course, some of this is the result of the unusual length of this recession.

<sup>2</sup> Year over year, the growth is 2.5 percent – which includes one quarter of negative growth (the second quarter of 2009).

<sup>3</sup> If the relationship is weaker, as some researchers suggest, even stronger growth would be required to reduce the unemployment rate to 5 percent by year end 2013. For example, if the reduction in the unemployment rate resulting from real GDP growth of 1 percent above potential is one-third of a percent instead of one-half of a percent, then real GDP growth of 6.25 percent would be needed to reduce the unemployment rate to 5 percent by year end 2013.

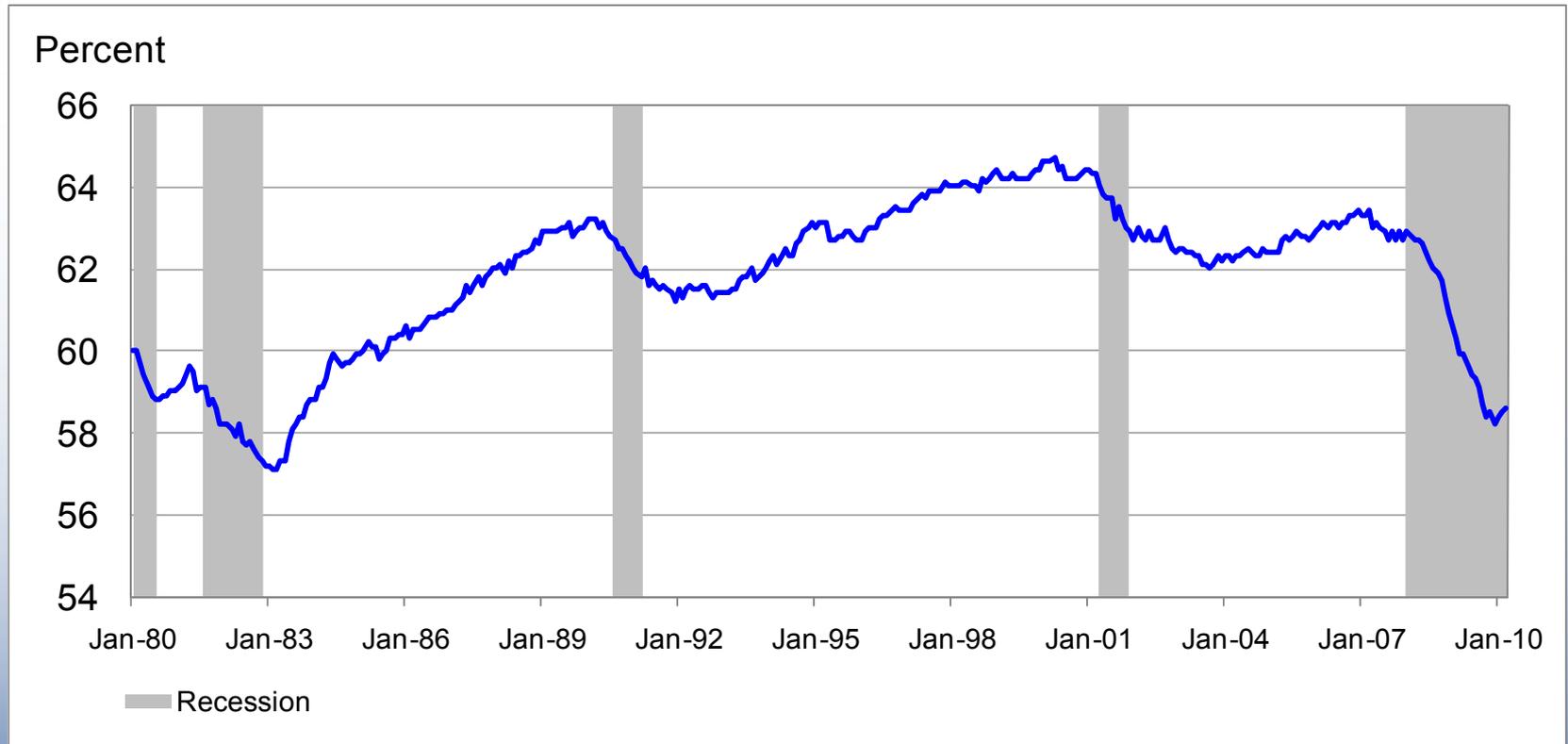
<sup>4</sup> Banks must, of course, maintain their capital ratios. As some banks have taken significant losses that drained capital, they have been reluctant to expand lending, so that the supply of loanable funds has likely been constrained. But this supply-side effect has been exacerbated by the credit condition of potential borrowers in the wake of the Great Recession. Even for banks that are less capital-constrained, with the balance sheets of many potential borrowers in much worse shape than they were before the recession, lenders making prudent lending decisions will be reluctant to lend to high-risk potential borrowers.

<sup>5</sup> See for example the remarks by Chairman Ben Bernanke at the National Commission on Fiscal Responsibility and Reform on April 27, available at <http://www.federalreserve.gov/newsevents/speech/bernanke20100427a.htm>

# Figure 1

## Employment / Population Ratio

January 1980 - March 2010

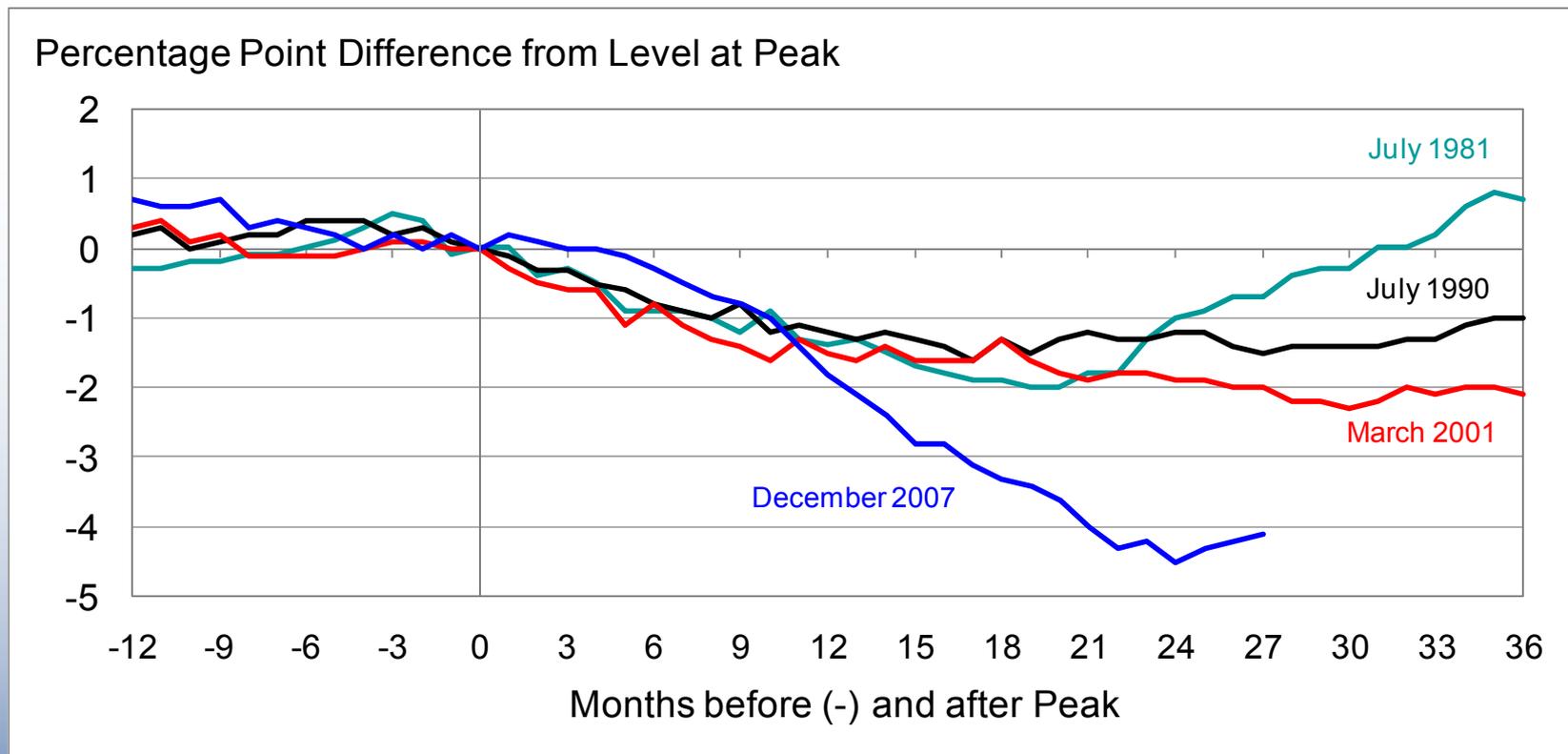


Source: BLS, NBER / Haver Analytics

# Figure 2

## Employment / Population Ratio: Change from Level at Business Cycle Peak

Last Four Recessions



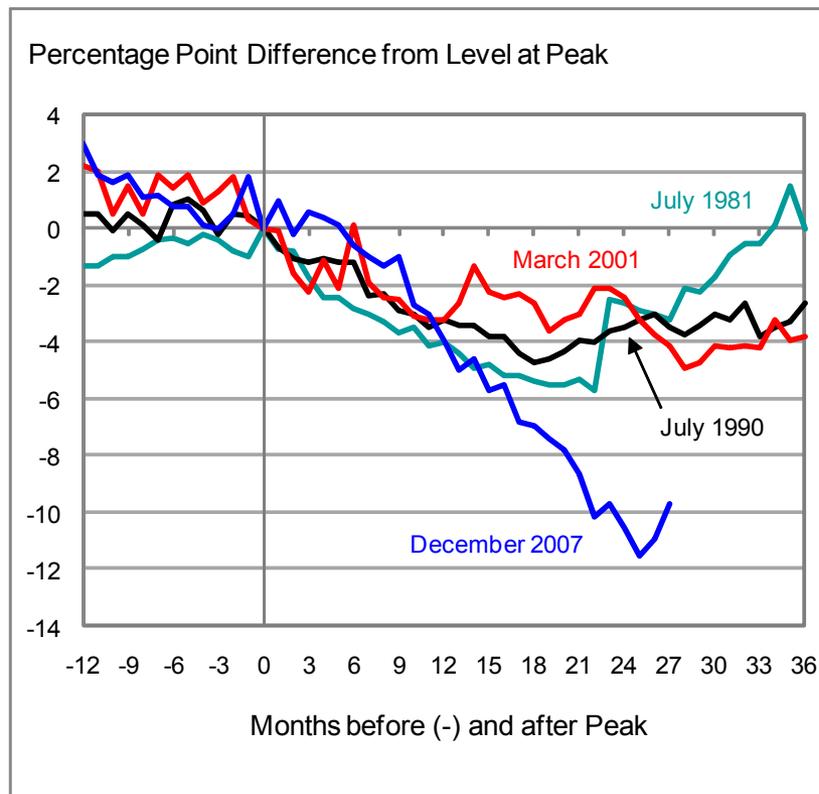
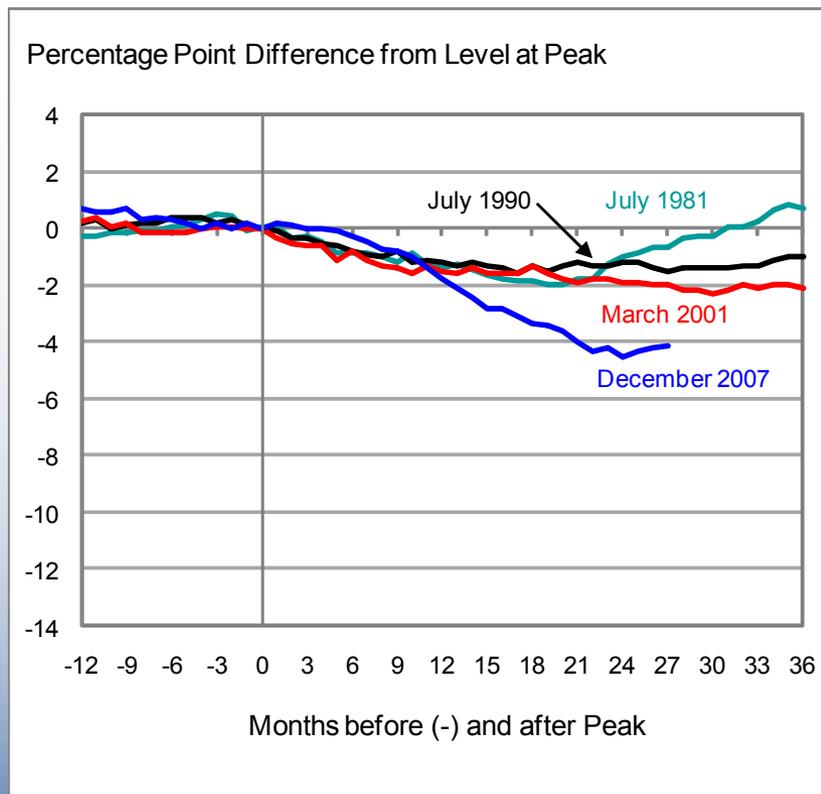
Source: BLS, NBER / Haver Analytics

# Figure 3

## Employment / Population Ratio: Change from Level at Business Cycle Peak

All

Men, Age 20 - 24

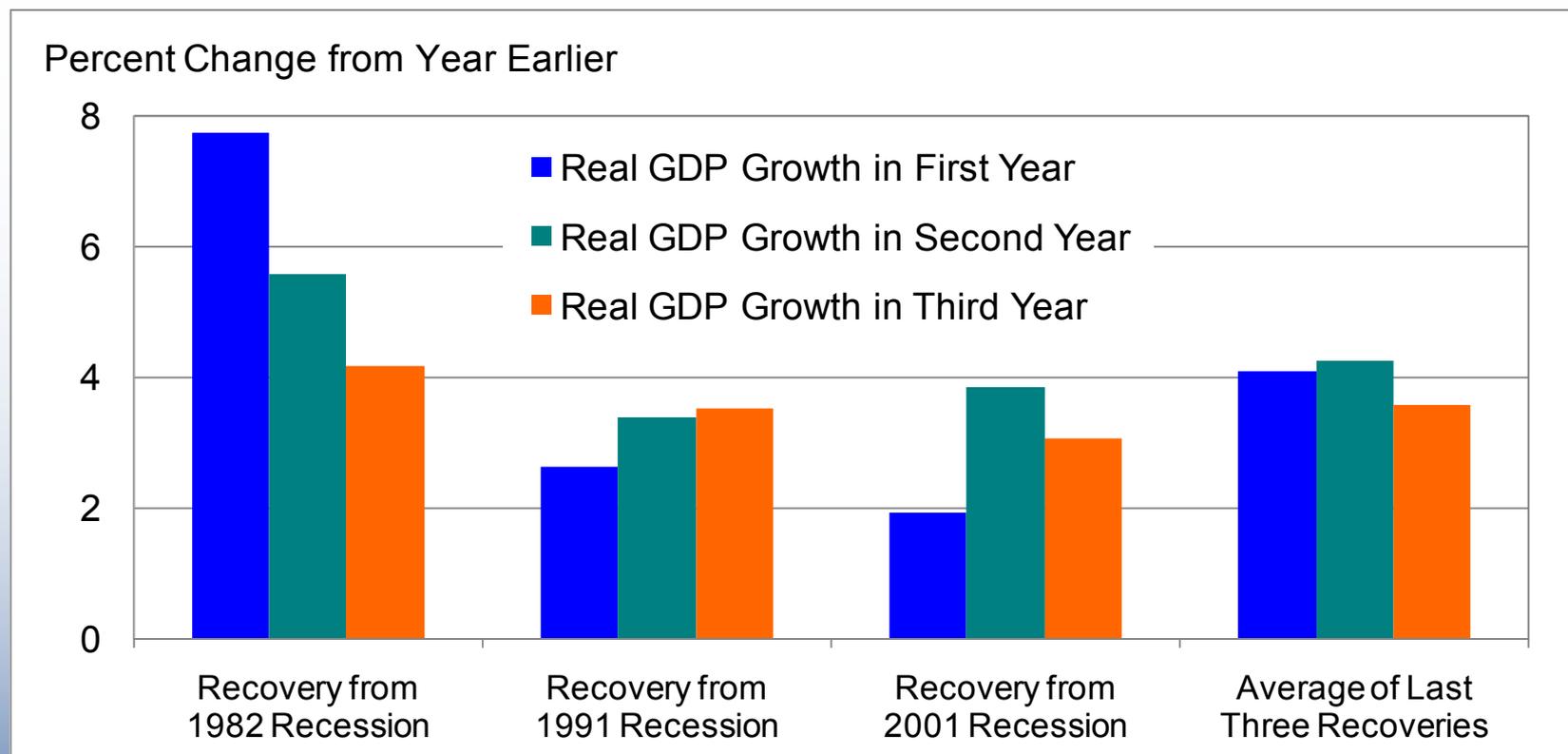


Source: BLS, NBER / Haver Analytics

# Figure 4

## Real Growth in First Three Years of Recovery

Last Three Recoveries

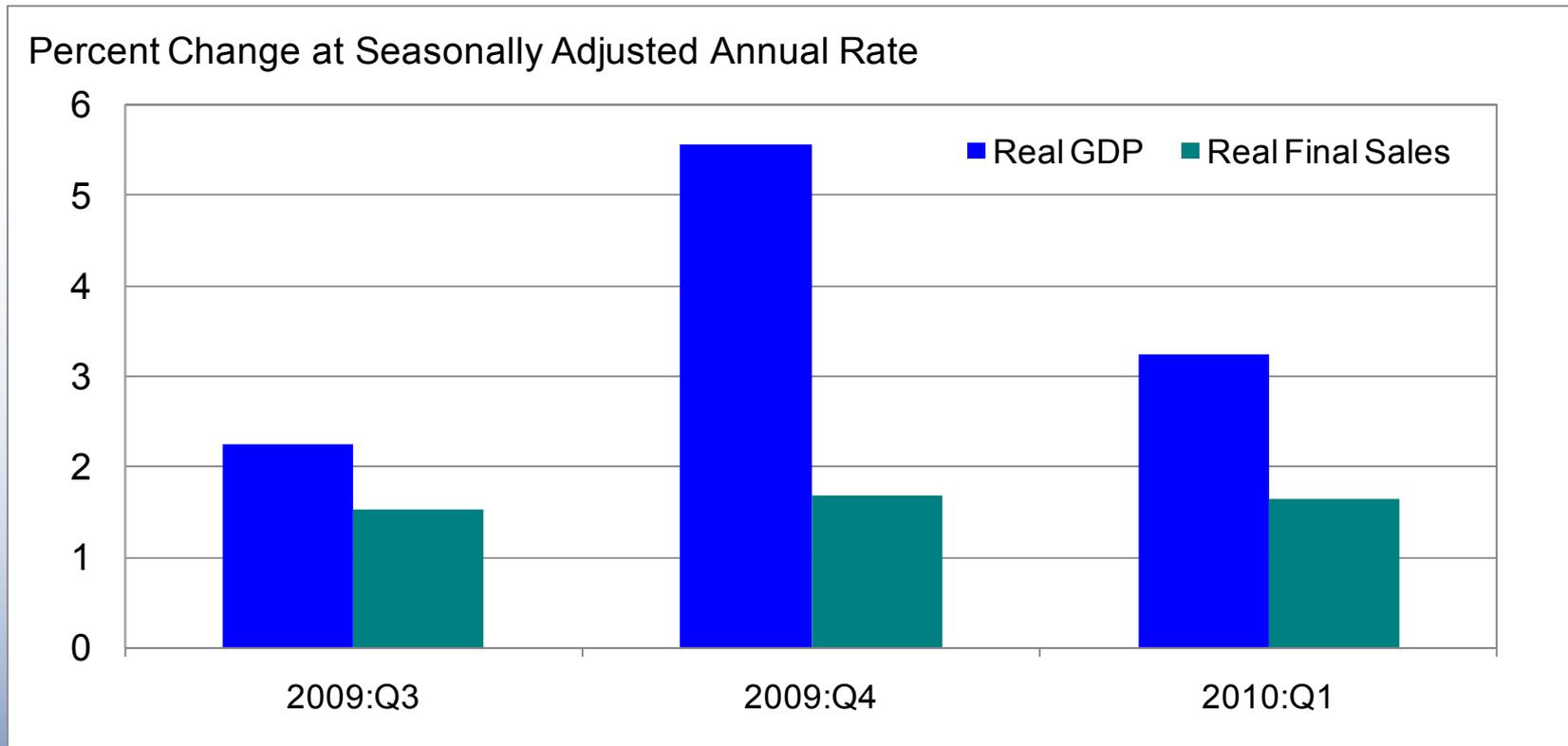


Source: BEA, NBER / Haver Analytics

# Figure 5

## Growth in Real GDP and Real Final Sales

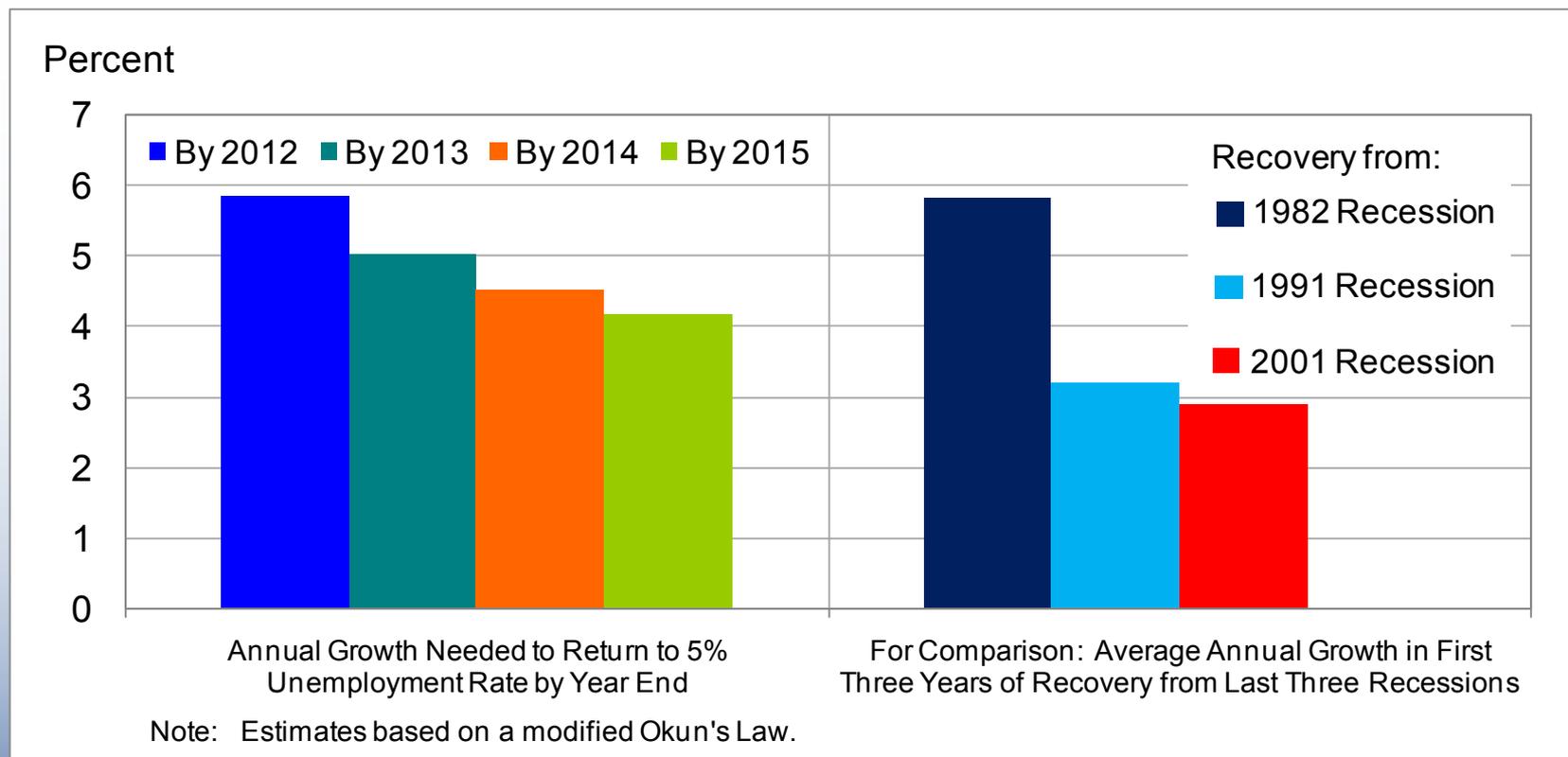
2009:Q3 - 2010:Q1



Source: BEA / Haver Analytics

# Figure 6

## Estimates of Annual Real GDP Growth Needed to Return to 5% Unemployment Rate

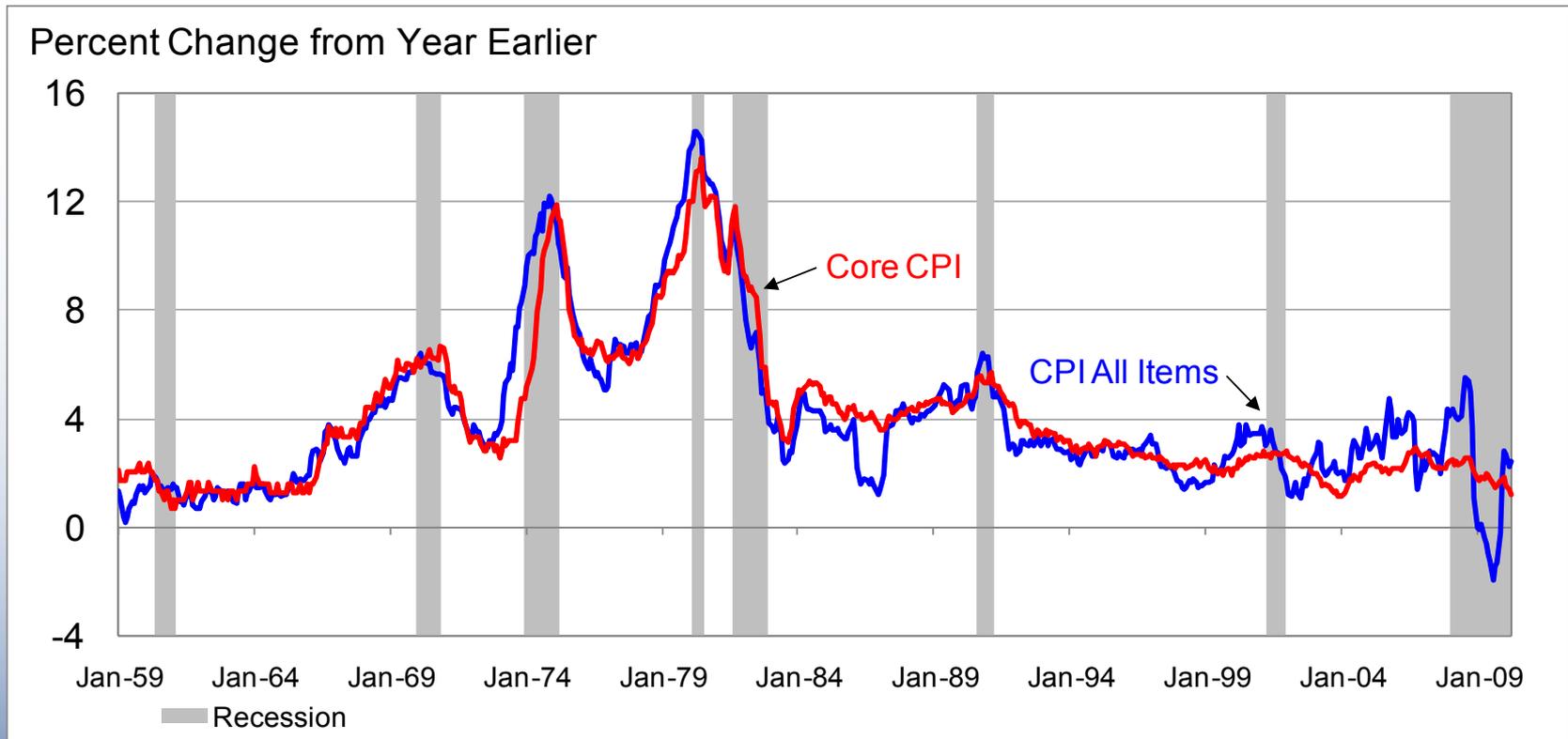


Source: BEA, NBER / Haver Analytics and author's calculations

# Figure 7

## Inflation Rate: Core and All-Items Consumer Price Index

January 1959 - March 2010

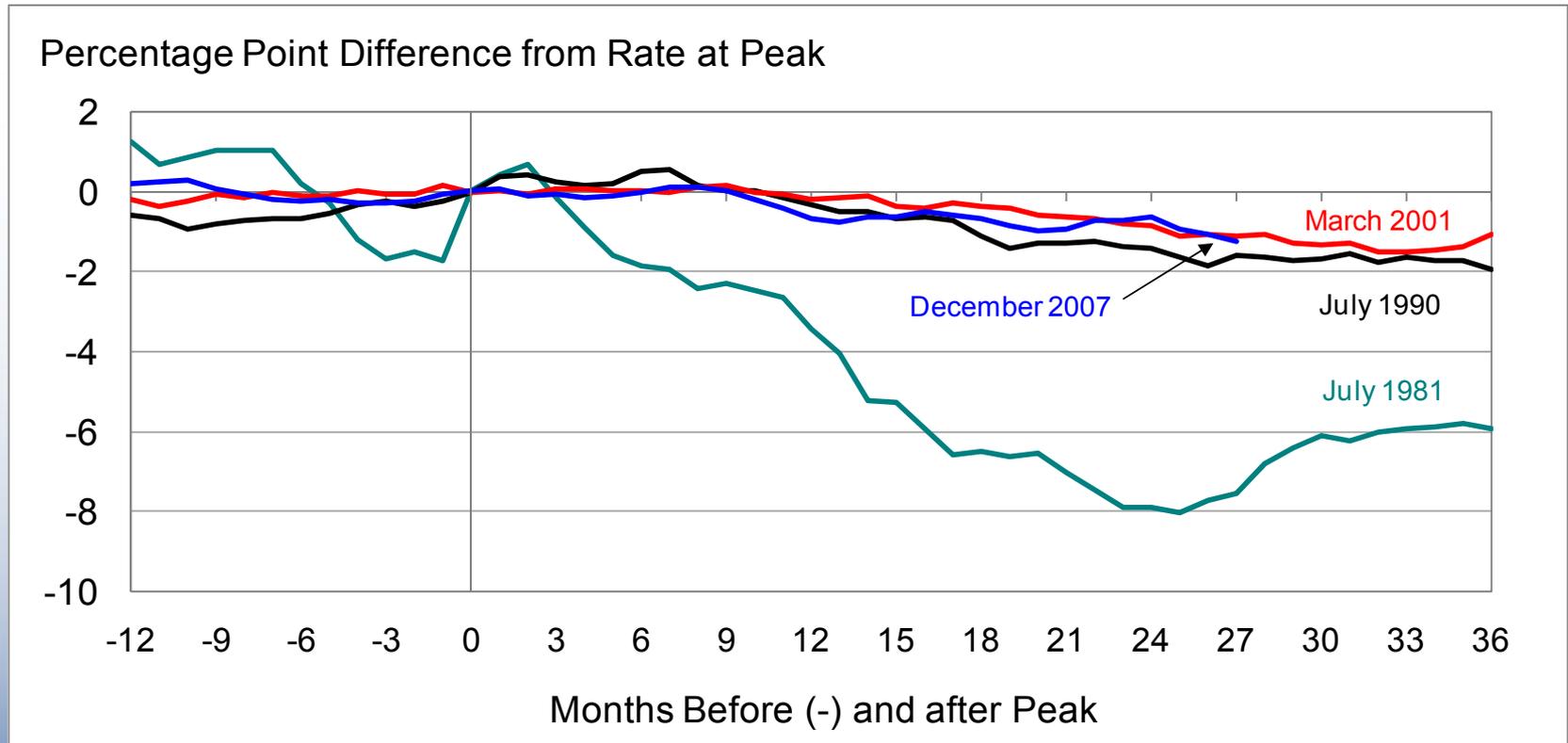


Source: BLS, NBER / Haver Analytics

# Figure 8

## Change in Inflation Rate (Core CPI) from Inflation Rate at Business Cycle Peak

Last Four Recessions

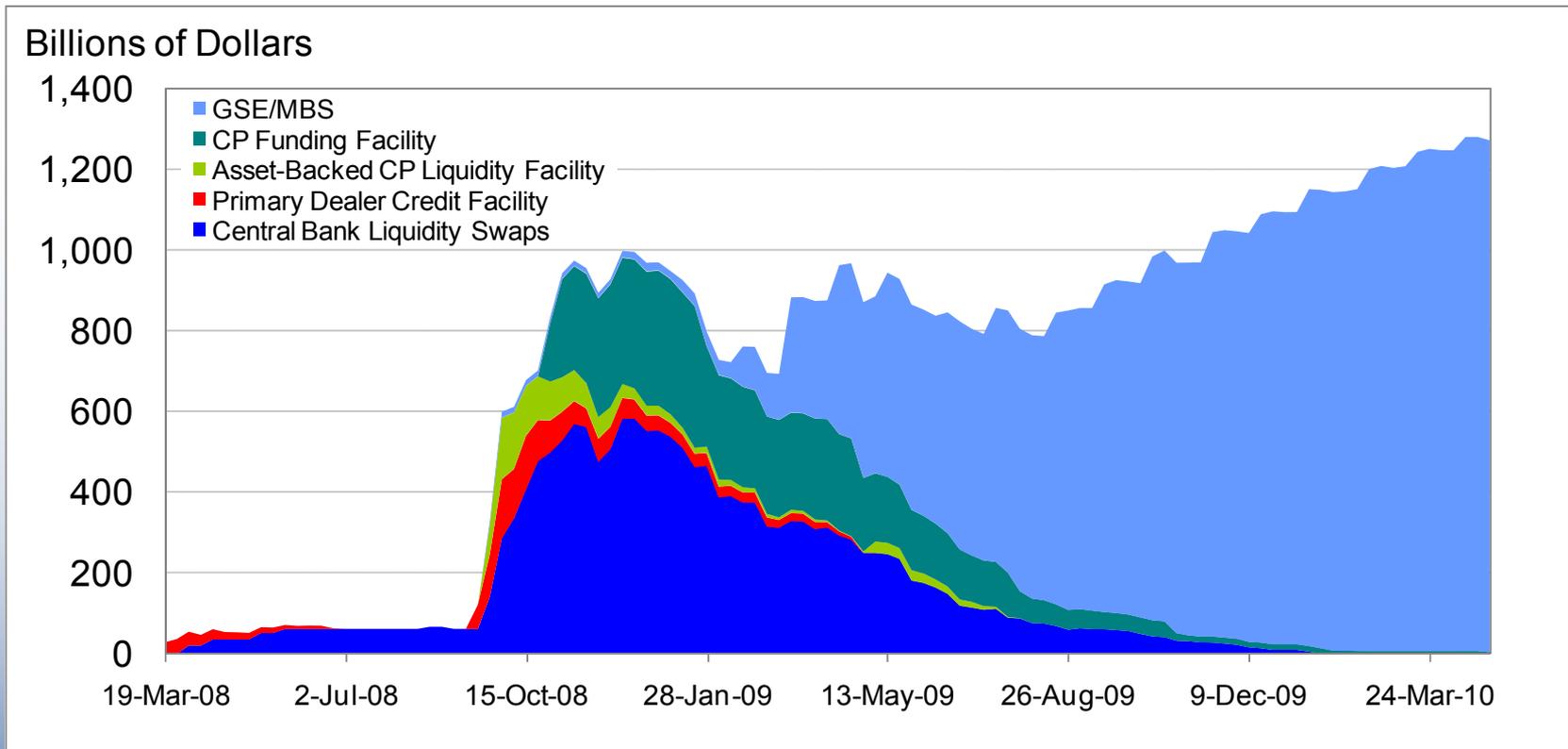


Source: BLS, NBER / Haver Analytics

# Figure 9

## Federal Reserve System Assets: Selected Temporary Operations

March 19, 2008 - April 28, 2010



Source: Federal Reserve Statistical Release H.4.1

# Figure 10

## Loan Growth at Commercial and Savings Banks

2009:Q1 - 2009:Q4

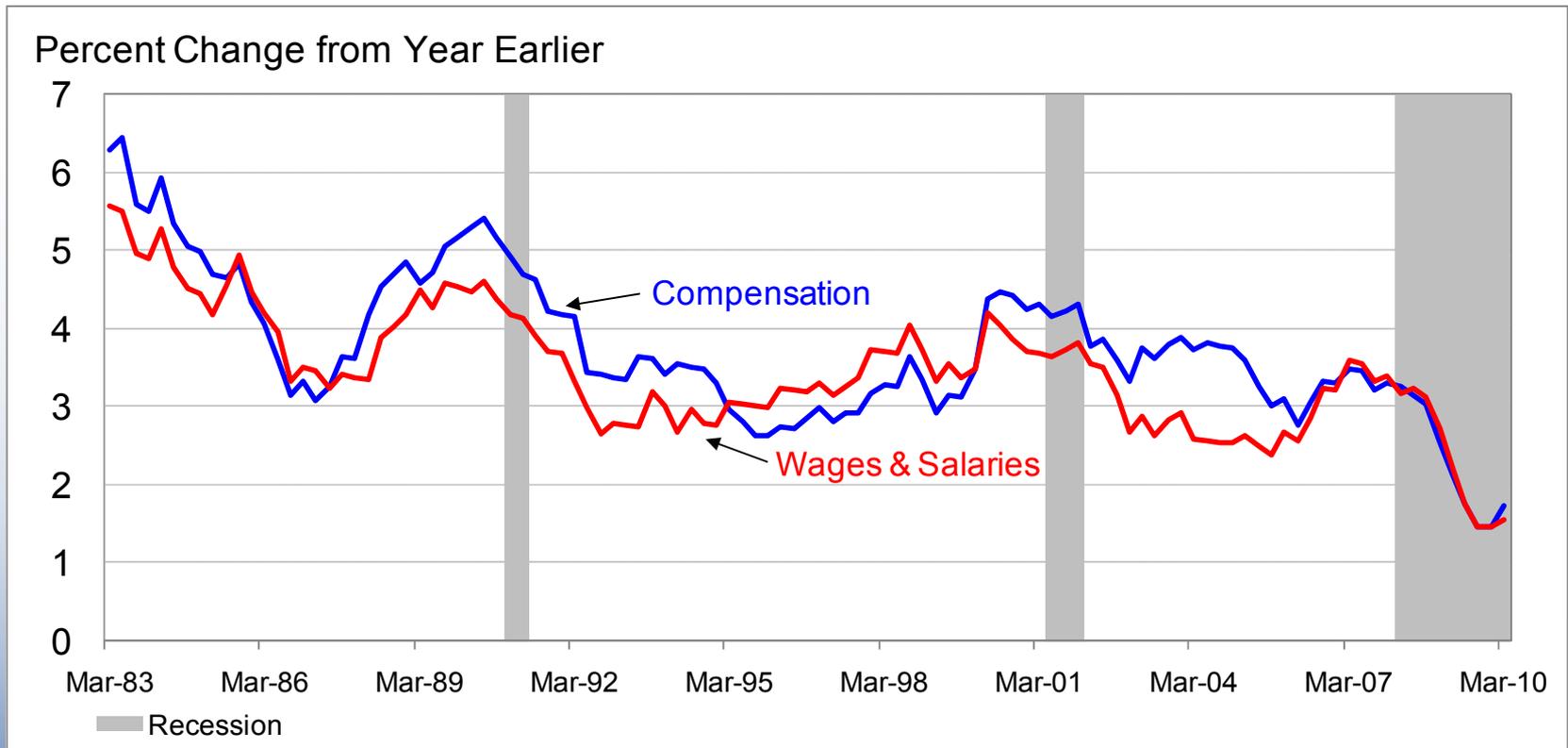
	Percent Change from Previous Quarter			
	2009:Q1	2009:Q2	2009:Q3	2009:Q4
Total Loans	-1.6	-0.1	-2.6	-0.5
Commercial Real Estate Loans	0.0	-0.8	-1.6	-2.1
Commercial and Industrial Loans	-4.2	-4.7	-6.2	-4.4

Source: Bank Call Reports and author's adjustments for mergers and failed-bank acquisitions.

# Figure 11

## Employment Cost Indexes for Civilian Workers

March 1983 - March 2010



Source: BLS, NBER / Haver Analytics