This talk

- The components of U.S. GDP have largely recovered to their 2007 peak, except for investment.

- This looks like the collapse of a real estate bubble.

- Most analysis does not take the idea of a collapsed bubble sufficiently into account when discussing the nature of the recovery in the U.S.

- This has important implications for U.S. monetary policy.
The Recovery in GDP
Real GDP: not quite back to peak

Real consumption: recovered

Real exports: recovered

Real imports: recovered

Government expenditures: higher than in 2007 Q4

Real investment: still down 16 percent

\[ Y = C + I + G + NX \]

- All of the components of real GDP, except investment, are at a higher level today than at the previous business cycle peak in 2007 Q4.

- The investment component remains about 16% below its 2007 Q4 level.
The components of investment

- Which components of investment are especially low?
- Nonresidential structures: Still 31% off the 2007 Q4 level.
- Residential: Still 38% off the 2007 Q4 level.
Real investment in nonresidential structures

Real Investment in Nonresidential Structures

Billions of Chained 2005 $
Real residential investment

A bubble has collapsed

- This looks like a collapsed real estate bubble.

- If the investment component of GDP had recovered to the extent that consumption has recovered, GDP would be higher by 4.2%.*

- But it is not reasonable to think that these particular areas of investment should robustly expand in the aftermath of a collapsed real estate bubble.

* Source: Bureau of Economic Analysis and author’s calculations.
Models have limitations

- Statistical models summarize average behavior over past recessions. Those recessions did not have a real estate bubble like this.

- Most theoretical models do not allow bubble-like behavior and so are of limited use in the current situation.

- Accordingly, many models say that the recovery looks weak compared to models’ predictions. But this is not helpful since it ignores the bubble component of what has happened.
The 2007 Q4 peak is not a good benchmark

- It is not reasonable to expect the economy to climb rapidly back to the 2007 Q4 peak since part of that peak was due to artificial growth driven by bubble behavior.

- A more reasonable interpretation is that fundamental potential growth in the U.S. has been somewhat lower than previously thought.

- There is some evidence for this in the behavior of inflation during the last year.
Monetary Policy
Monetary policy over the last year

- The FOMC’s asset purchase program clearly drove both inflation and inflation expectations higher and closer to the Committee’s implicit target over the last year.

- Yet the July 29 GDP report showed that actual real economic performance was weaker than the Committee anticipated last fall.

- This should have meant less inflation, not more.
A smaller and less influential output gap

- This suggests that the output gap may have been considerably smaller than previously thought, and perhaps also that the output gap has considerably less influence on inflation than commonly thought.

- This makes sense if the gap is not computed based on the 2007 Q4 peak, but instead based on a lower level of potential output.

- The larger influence on actual inflation comes from inflation expectations, and those expectations (as measured in TIPS markets) tended to be higher over the last year, although they have retreated in recent weeks.
Future monetary policy

The Committee needs to be able to conduct a systematic countercyclical monetary policy during the period of near-zero policy rates.

The Fed’s balance sheet policy—outright asset purchases and sales—is the most natural and effective tool for this purpose.

The Committee should decide on any asset purchases on a meeting-by-meeting basis, along with a continuation value, or bias, indicating the likelihood that the Committee will continue on its current path at the following meeting.
A potent tool

- Asset purchases are a potent tool and must be employed carefully.

- Inflation and inflation expectations rose during the last year, even though many measures of economic performance indicate that the economy was relatively weak.

- The meeting-by-meeting approach would allow the Committee to carefully monitor and adjust any program.
An alternative approach: the communications tool

- An alternative would be for the Committee to use the promised date of the first interest rate increase as the primary policy tool during the upcoming period of near-zero policy rates.

- By shifting this date, the Committee, at least according to some models, can influence financial market conditions and provide monetary accommodation if it so desires.

- This is the so-called communications tool.

- The communications tool works inside models but has some important caveats for actual policy application.
The communications tool: credible promises?

- One is that it is not clear how credible actual announcements can be.
- If the economy is actually performing quite well at the point in the future where the promise begins to bite, then the Committee may simply abandon the promise and return to normal policy.
- But this behavior, if understood by markets, would cancel out the initial effects of the promise, and so nothing would be accomplished by making the initial promise.
There is another drawback to the communications tool. Simply promising to keep the policy rate near-zero for longer and longer periods of time may encourage a Japanese-style outcome in which the policy rate simply remains near zero and markets come to expect a mild rate of deflation.

This possibility has clear support in the theoretical literature but is too often ignored in policy discussions.

See the discussion in my paper “Seven Faces of ‘The Peril’. ”

Conclusions
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- Taking the bubble view more seriously has implications for the expected pace of the U.S. recovery and for the likely fundamental potential growth rate of the U.S. economy.

- The behavior of inflation over the last year supports the idea that the fundamental output gap has been smaller than recognized, and that asset purchases are a potent tool for influencing inflation and inflation expectations.

- The main alternative to asset purchases, the communications tool, has some potential drawbacks.