

# SNEAK PREVIEW: Death of a Theory

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Any opinions expressed here are my own and do not necessarily reflect those of others on the Federal Open Market Committee.

### A sneak preview

- I have a new paper, "Death of a Theory," that should be ready for distribution next week.
- This talk is a *sneak preview* of the ideas in that paper.
- The paper concerns the effectiveness of fiscal approaches to stabilization policy.
- By "fiscal stabilization policy" I mean attempts to react to aggregate shocks through changes in taxes and spending.

Conventional wisdom re-established

- I begin the paper with my characterization of the conventional wisdom within macroeconomics concerning fiscal stabilization policy.
- I view the last three years as a detour from that conventional wisdom.
- I then characterize the current situation as re-establishing the previous conventional wisdom.

# Outline

- Conventional wisdom, 1984 to 2007.
- Monetary policy at the zero lower bound, late 2008.
  - Focus turns to fiscal stabilization policy.
- Effectiveness of fiscal stabilization policy.
  - New Keynesian DSGE literature.
  - An alternative theory.
- The actual policy experiment differed from the advice in the literature.
- Debt sustainability.
- Return of the conventional wisdom.

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# Conventional wisdom pre-2007

### The thinking pre-2007

- Mankiw (1992): "Dubious Keynesian Proposition #4: Fiscal policy is a powerful tool for economic stabilization, and monetary policy is not very important."
- Mankiw described the proposition as dubious because fiscal policymakers are highly unlikely to make the proper types of interventions in a timely way.
- Corollary: The fiscal authorities should set the tax and spending programs in a way that makes economic and political sense for the medium and long term.

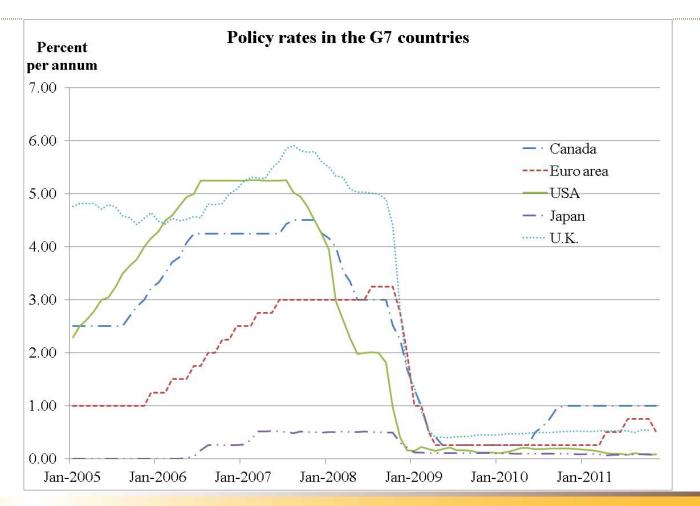
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# The zero lower bound

#### December 2008

- In late 2008, the FOMC set the policy rate at 0 to 25 basis points, effectively at the zero lower bound on nominal interest rates.
- The Committee soon announced that the near-zero rate policy would continue for an "extended period."
- A key issue is whether monetary stabilization policy can still be conducted effectively at the zero lower bound on nominal interest rates.

#### The zero bound encountered



#### Source: Haver Analytics. Last observation: December 2011.

### Effectiveness of monetary stabilization policy

- Effectiveness means that the central bank can influence inflation and inflation expectations even when the policy rate is near zero.
- In the NK DSGE literature, monetary policy typically does not influence expected inflation at the ZLB.
- But in reality, many have argued that many other tools are available to the monetary authority at the ZLB.
- Leading example: Bernanke (2002).

# Monetary policy, 2008-2011.

- The last three years have provided the FOMC an opportunity to try alternative approaches to monetary policy stabilization.
- The result is that inflation and inflation expectations have remained relatively high, even though many forces might have suggested lower inflation or even deflation.
- Evaluations of these policies suggest substantial impact. Example: Neely (2011).
- Also effective in the U.K.
- When monetary stabilization policy is effective, it is not necessary or desirable to turn to fiscal stabilization policy.

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# Effectiveness of fiscal stabilization

## New Keynesian DSGE results

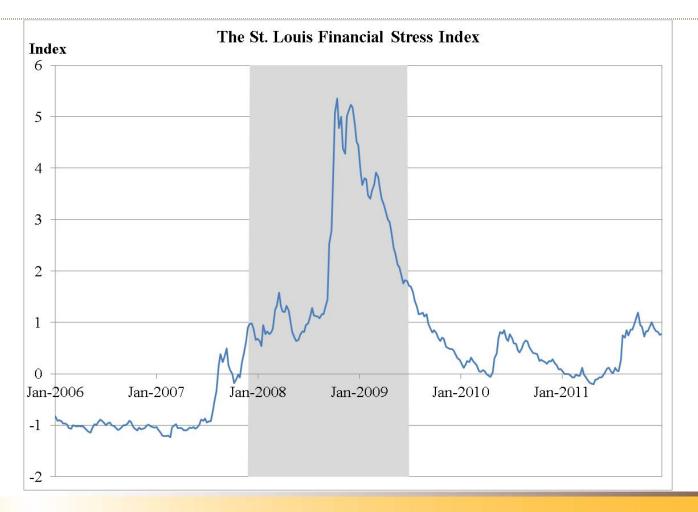
- Excellent exposition by Woodford (2011).
- Begin with a simple framework and add complications.
  - No investment; closed economy; lump-sum taxes are available.
- Thought experiment: increase government spending today financed by lump-sum taxes today.
- Key question: will total output increase today?

# Findings

- If there is no monetary policy justified through the sticky price assumption, the fiscal multiplier is less than one. Barro (2009).
- With sticky prices, the effect would depend on the reaction of the monetary authority. Fiscal stabilization would not be effective unless monetary policy is suboptimal.
- With sticky prices and monetary policy at the ZLB, fiscal stabilization can be effective.
  - Effects enhanced if financial markets are "stressed."

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#### **Financial stress**



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Source: Federal Reserve Bank of St. Louis. Last observation: week of December 30, 2011.

#### Caveats

- Is monetary policy ineffective once the ZLB has been reached?
  - Within NK model, perhaps not. The monetary authority could commit to keep the policy near zero for a period longer than otherwise expected.
  - Actual FOMC policy has been influenced by this idea.
  - Unconventional policies have been effective in reality even if they are not within the model.
- Inside the model, the tax and spending program should last only during the period of the ZLB and financial stress.

### Design with care

- The results are subtle. Woodford (2011) states: "... such policy must be designed with care ..."
- The actual political process is ill-suited to timely, effective decisions.
- This is one reason why the original conventional wisdom is reasserting itself.

### Monetary stabilization policy effectiveness

- The assumption that monetary stabilization policy becomes ineffective once the ZLB is encountered is critical, because the reaction of the monetary authority determines how effective the fiscal policy program will be.
- But, in reality, the Committee has been able to run an effective countercyclical monetary policy during the last three years via "unconventional" policy.
- So one of the key assumptions for fiscal policy effectiveness from the literature has not been met.

### The timing of taxes

- In the NK story, the taxes should be collected simultaneously with the increase in government spending.
  - Delaying taxes, so that they are collected after the ZLB and financial turmoil dissipate, damages the effectiveness of the program, or eliminates the effects altogether.
- In the actual policy experiment, countries relied on borrowing in international financial markets, and debt levels increased.
- In the model, increased debt would be interpreted as delayed taxes, violating an assumption of the policy experiment.

### An alternative theory

- An alternative theory is much less studied but closer to the rhetoric on fiscal policy effectiveness.
- Suppose two regimes exist, one involving high growth and the other involving low growth.
- Heavy government borrowing might signal that the high growth regime is likely; this might then influence private sector expectations and private sector decisions.
- The high growth equilibrium could be encouraged as a self-fulfilling prophecy.
- However, if government spending is viewed as wasteful, the private sector could coordinate on low growth.

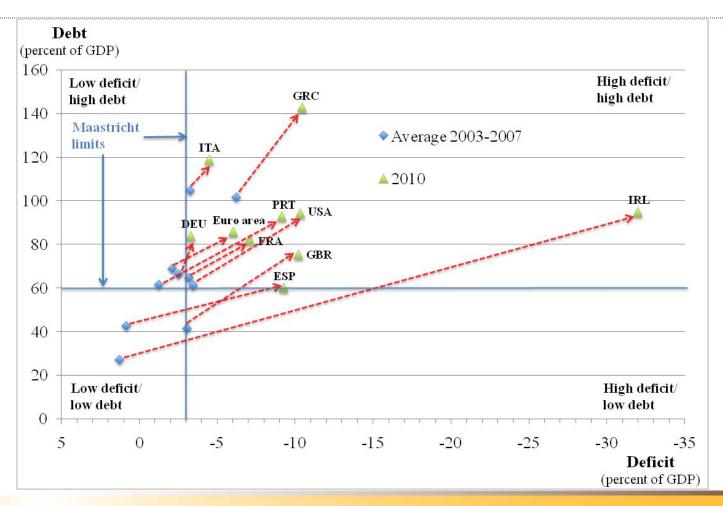
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# The actual policy experiment

#### The increase in sovereign debt

- The actual policy experiment in the West during 2008present involved a lot of borrowing on international credit markets.
- The pattern of taxation and future government spending that would support this debt was left unspecified, but any tax increases would likely occur much later.
- Again, this violates a condition for the effectiveness of the fiscal program.

#### Fiscal indicators for selected countries



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Source: IMF, WEO Database, September 2011. Last observation: 2010; USA and GBR 2010 are projections.

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# Debt sustainability

#### "Too much debt."

- The story so far has no concept of over-indebtedness of a sovereign country.
- The typical assumption is that governments can borrow unlimited amounts on international markets.
- This assumption does not do too much damage for relatively small increases in the level of government debt.
- The literature on endogenous debt constraints helps define possible debt limits.

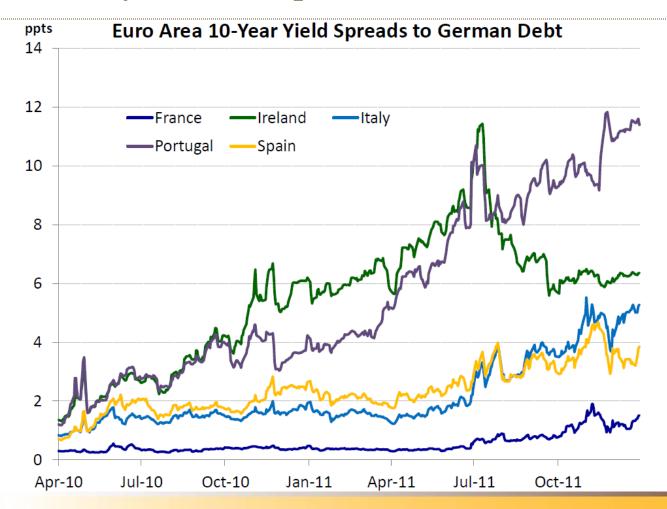
### Endogenous debt constraints

- What determines a debt limit?
- The sovereign with an existing debt can contemplate default. Default will provide a temporary benefit.
- The penalty for default will be exclusion from international credit markets for some period of time.
- The sovereign at the constraint is indifferent between default and exclusion from credit markets.

#### Lessons

- One lesson from the literature on endogenous debt constraints is that such a constraint will certainly exist.
- International markets will understand as much about this constraint as the sovereign and will not lend beyond it.
- This gives a clear idea of "too much debt."
- Interest rates affect the constraint but by themselves are probably not a good way to assess the situation.

#### Euro area 10-year bond spreads

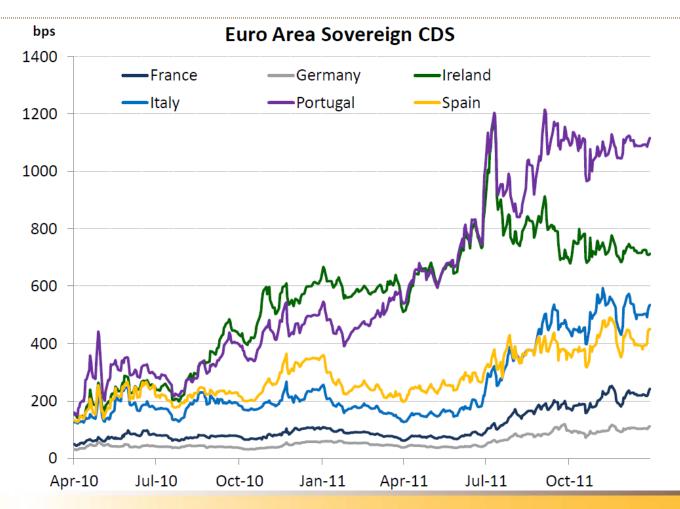


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Source: Federal Reserve Bank of New York. Last observation: January 6, 2012.

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#### Euro area sovereign CDS's



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Source: Federal Reserve Bank of New York. Last observation: January 6, 2012.

# Yields as indicators of danger

- Many take low borrowing rates as an indication that more debt can be taken on safely.
- But borrowing rates tend to stay low until the crisis occurs, then rise rapidly. This is broadly consistent with an approach toward an endogenous debt constraint.
- The U.S. has low borrowing rates today, but when a crisis occurs, as it did for Portugal, rates will rise rapidly.

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# Conclusions

### Death of a theory

- I considered the New Keynesian DSGE story on fiscal stabilization policy as it stands.
- I have discussed three problems.
- First, the policy recommendation from the literature is subtle, but the political process is ill-suited to handling this.
  - This is re-establishing the conventional wisdom of Mankiw.

#### More on death of a theory

- Second, the theory relies on monetary stabilization policy being ineffective once the ZLB is encountered, but many have argued that unconventional monetary policy has in fact been quite effective during the last three years.
- In the model, if monetary stabilization policy is effective, then fiscal stabilization policy has no effect except to increase debt levels.

#### More on death of a theory

- Third, the actual policy experiment involved heavy reliance on government borrowing, which is interpreted in the model as pushing taxes off into the future.
- According to the model, this may mitigate or eliminate the positive effects from the fiscal stabilization policy.

### Debt sustainability

- Finally, I have addressed the question of "too much debt," which now plagues many nations.
- The literature on endogenous debt constraints suggests ideas about where the debt limits come from and how they are determined.
- Low rates on government debt should not be comforting regarding the likelihood of hitting debt limits.

Conventional wisdom re-established

- I conclude that the turn toward fiscal approaches to stabilization policy has run its course, and that conventional wisdom is being re-established.
- Stabilization policy should be left to the monetary authority, which can operate effectively even at the zero lower bound.
- Tax and spending policy should be set for the medium and longer term.



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*Federal Reserve Economic Data (FRED)* research.stlouisfed.org/fred2/

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