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 new paper

- I have a new paper, "Death of a Theory," in which I discuss the effectiveness of fiscal approaches to stabilization policy.
- "Fiscal stabilization policy": attempts to react to aggregate shocks through changes in taxes and spending.
- The analysis depends a lot on the nature of monetary stabilization policy.

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.
  - According to the macroeconomics literature.
  - An alternative theory.
- The actual policy experiment differed from the advice in the literature.
- Debt sustainability.
- Return of the conventional wisdom.

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 unlikely to make the recommended types of interventions in a timely way.

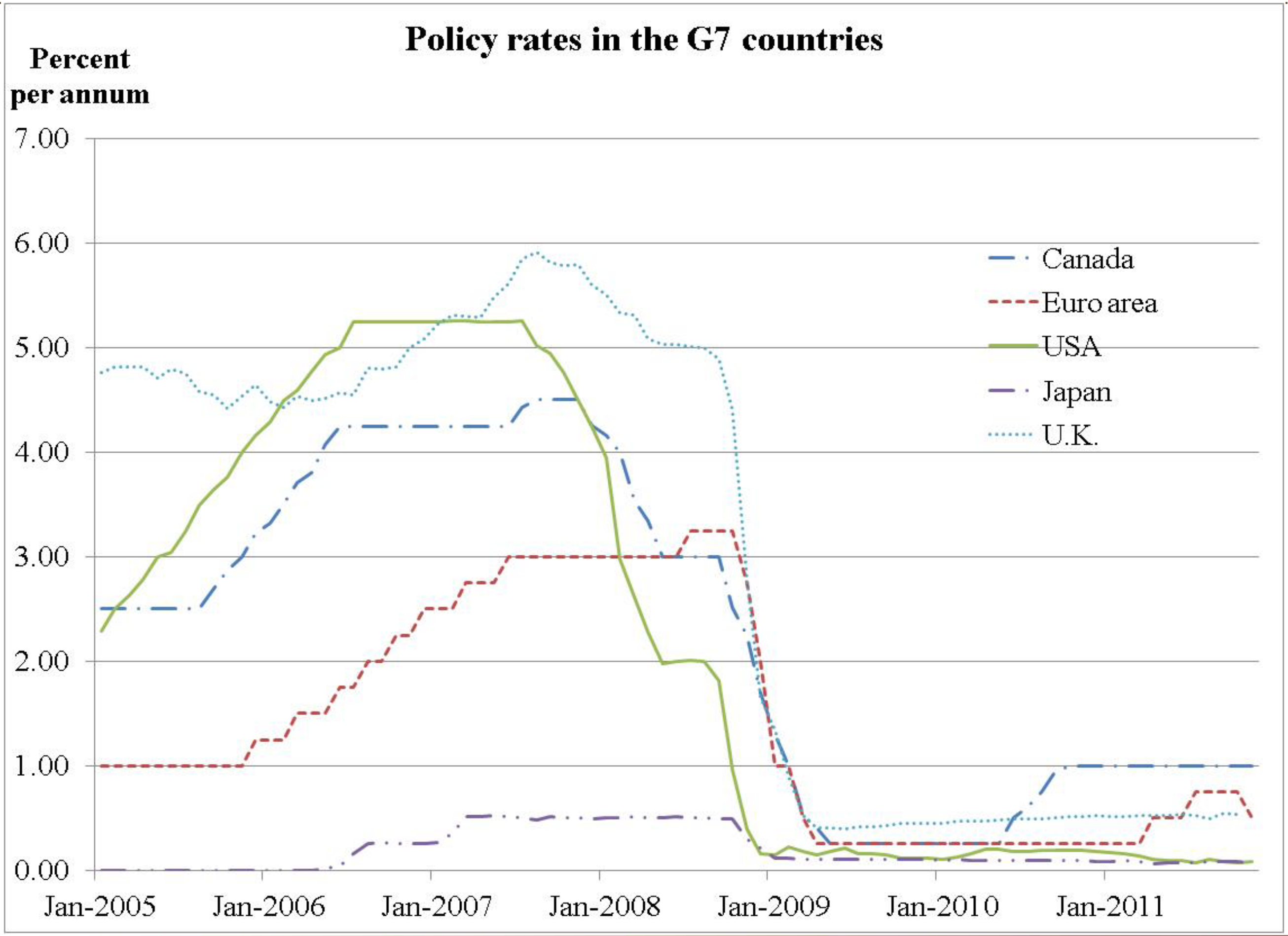
- Corollary: The fiscal authorities should set the tax and spending programs in a way that makes economic and political sense for the medium and long term.

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 (ZLB) 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 leading macro 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*.

Effectiveness of fiscal stabilization

What the literature says

- Excellent exposition by Woodford (2011, *AEJ Macro*).

- Begin with a simple framework and add complications.
  - No investment; closed economy; "lump-sum" taxes are available; also addresses distortionary taxation case.

- Thought experiment: increase government spending today financed by lump-sum taxes today.

- Key question: will total real output increase today?

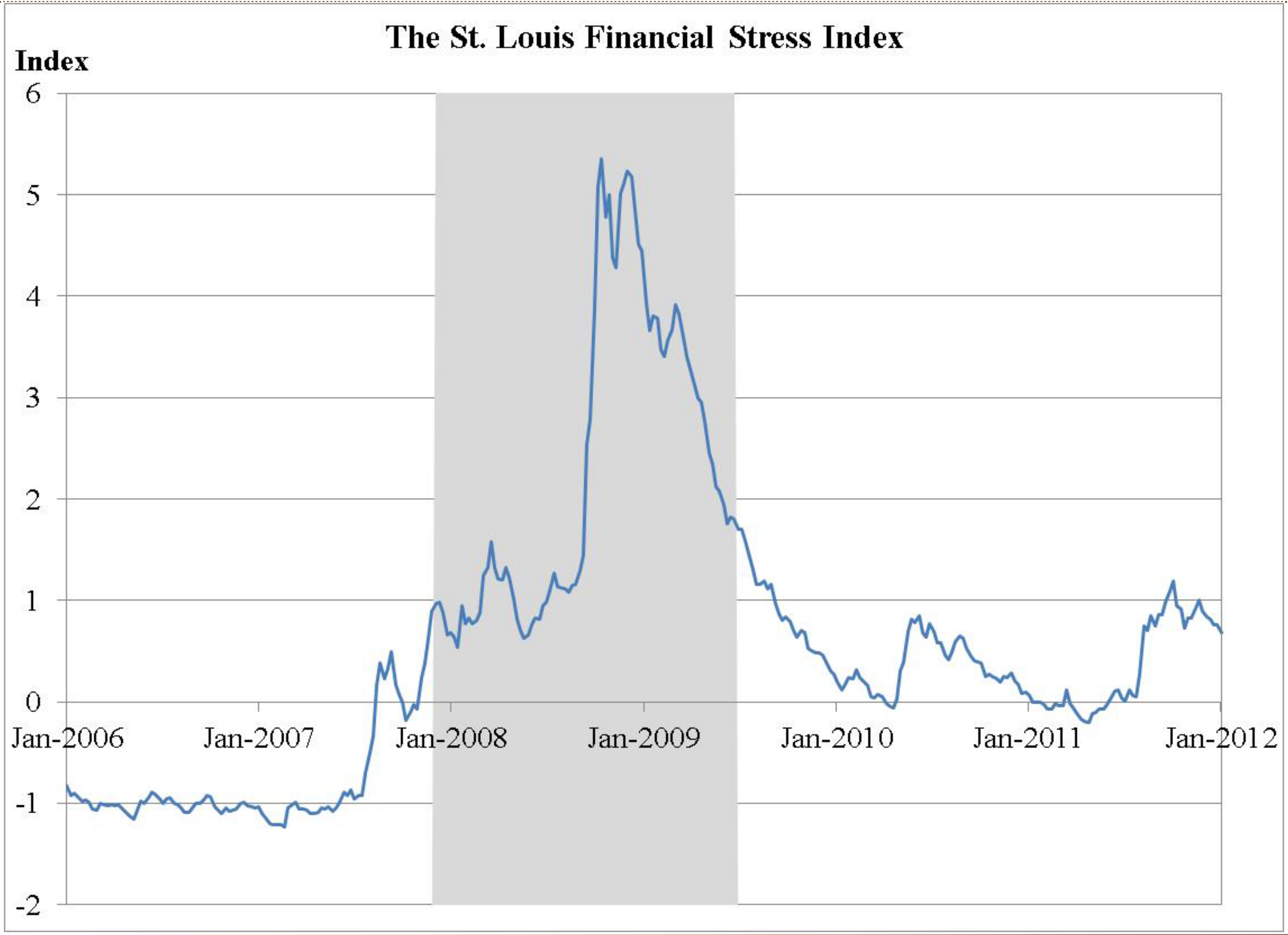
Financing government spending

- Why is the thought experiment to finance government spending today with taxes today?
- Because with households and businesses that are forward looking, the timing of taxes should not matter.
  - Households and businesses can see future taxes, and change their behavior in response.
  - This has been understood in the literature for decades.
- The theory is within this "Ricardian" tradition.

Findings in a nutshell

- 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 fiscal effect would *depend on the reaction of the monetary authority*.
  - Good monetary policy would make fiscal intervention unnecessary.
- With sticky prices and monetary policy at the ZLB, fiscal stabilization can be effective.
  - Effects enhanced if financial markets are "stressed."

Financial stress returns to normal by 2010



Source: Federal Reserve Bank of St. Louis. Last observation: week of January 6, 2012.

Caveats

- Key question: does monetary stabilization policy remain effective once the ZLB has been reached?
  - "Unconventional" balance sheet policies have been effective in reality even if they are not within the theory.
  - See the papers from the St. Louis Fed "QE2" conference.
- Inside the model, the tax and spending program should last only during the period of the ZLB and financial stress when taxes are distortionary.

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 implementation of the policy advice in the literature.
- 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 to the theory, because the reaction of the monetary authority determines how effective the fiscal policy program will be.
- In reality, the Committee has been able to run an effective countercyclical monetary policy during the last three years via “unconventional” policy.
- In the theory, this makes fiscal stabilization policy ineffective.

The timing of taxes

- In the theory, any distortionary 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.

The actual policy experiment

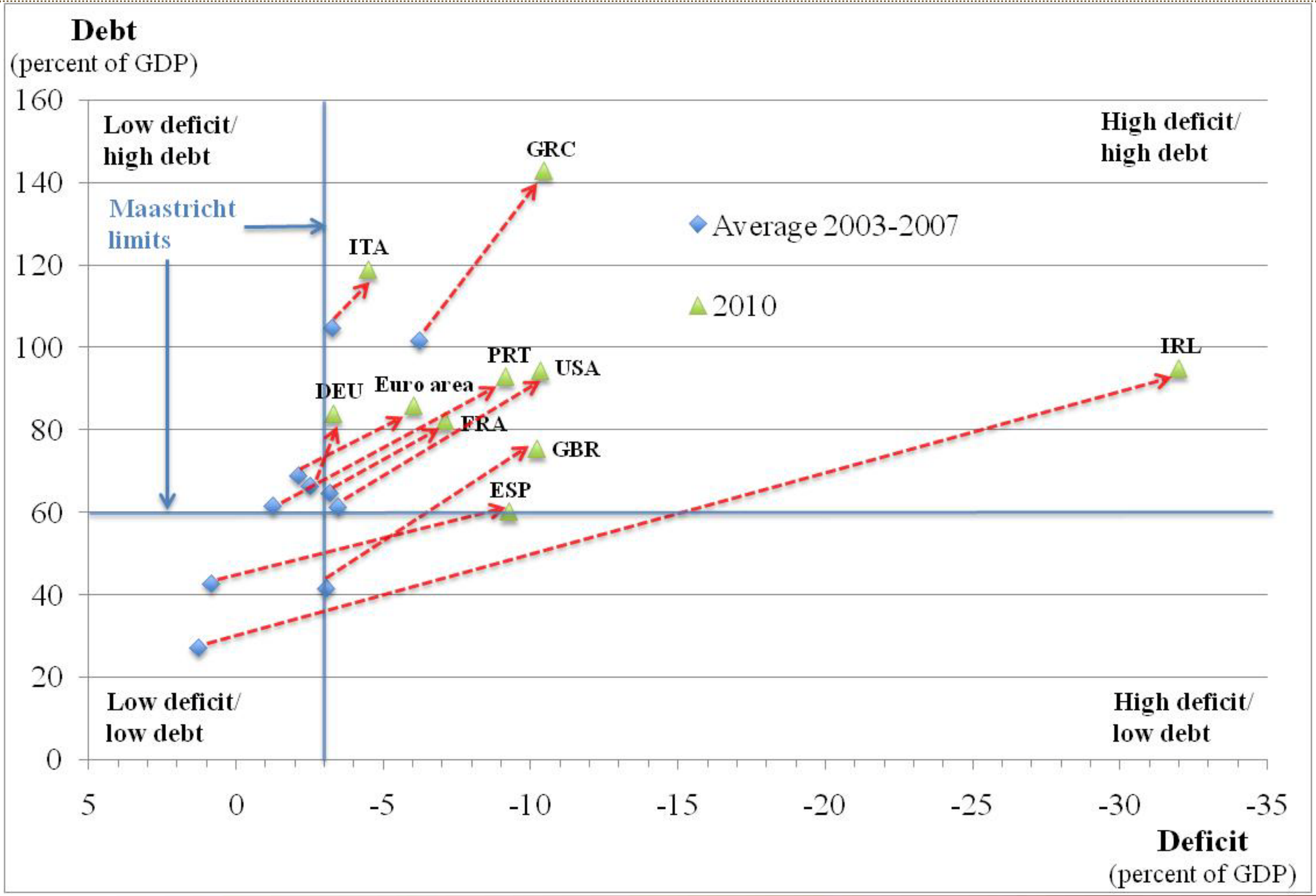
The increase in sovereign debt

- The actual policy experiment in the West during 2008-present 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



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

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.

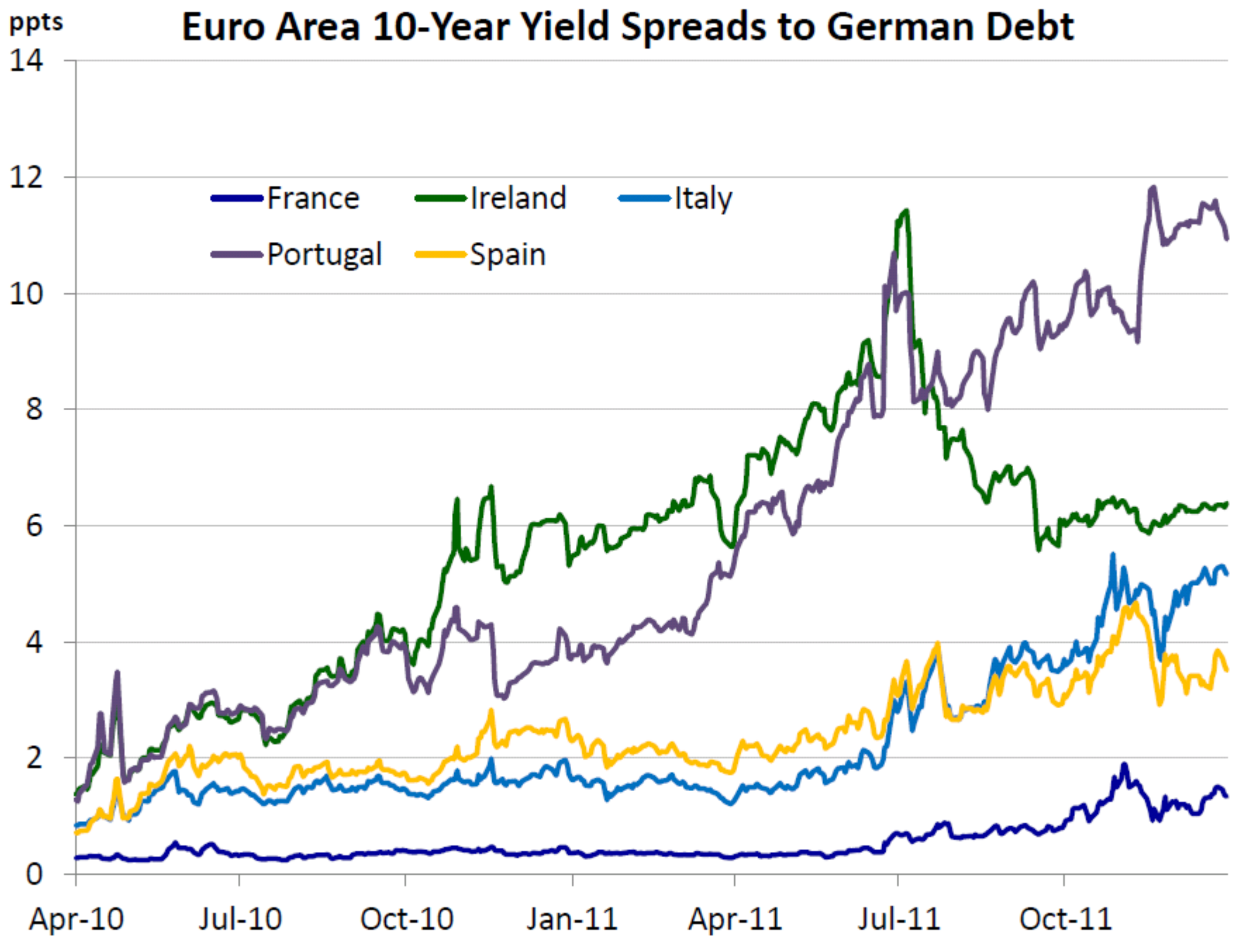
Debt constraints

- 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

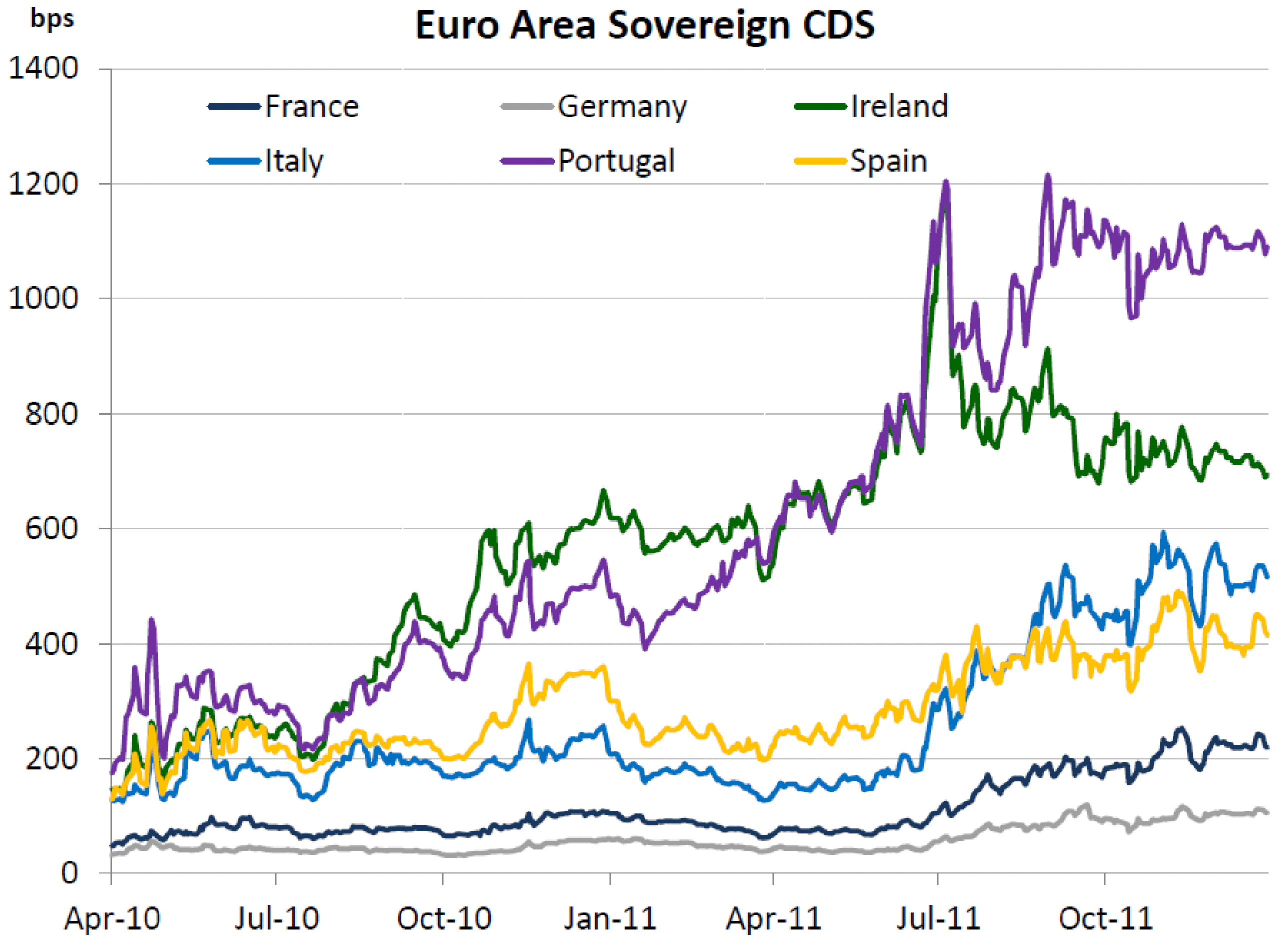
- One lesson from the literature on endogenous debt constraints is that such a constraint will certainly exist.
- International markets will understand as much about this constraint as the sovereign and will not lend beyond it.
- This gives a clear idea of "too much debt."
- Interest rates affect the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

Euro area 10-year bond spreads



Source: Federal Reserve Bank of New York. Last observation: January 11, 2012.

Euro area sovereign CDS's



Source: Federal Reserve Bank of New York. Last observation: January 11, 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, rates will rise rapidly.

Summary

Death of a theory

- I have discussed three problems with the leading theory in the literature on fiscal stabilization policy:
  - The political process is ill-suited to implementing the subtle policy advice coming from the literature.
  - Unconventional monetary stabilization policy has been quite effective over the last three years, making fiscal action redundant.
  - The actual policy experiment involved substantial government borrowing, which is interpreted in the model as pushing taxes off into the future. This limits or eliminates effectiveness according to the theory.

Debt sustainability

- Finally, I have addressed the question of "too much debt," which now plagues many nations.
  - The literature on 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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