Very Interesting Paper!

Nice two-country DSGE model (calibrated)
Main point:
- Government spending reversals will increase short-run fiscal multipliers. (see also CMM, *Fiscal Stimulus with spending reversals*)
- Policy recommendation: Combine stimulus packages with stabilization plan
- This paper studies cross-country spillovers with spending reversals. Differ from usual findings. Possibly closer to some findings in empirical SVAR literature (flexible exchange rate)

What I'll Do

- Discuss observed fiscal stimulus and its likely effects (multipliers or reducers)
- Apply spending reversal idea in an empirically estimated DSGE model
- Discuss policy implications.
- Maybe touch on zero bound and spillovers.

Fiscal Stimulus Packages

**U.S.A.**:
- 2008: Bush tax rebates, 2009: ARRA
  - The American Recovery and Reinvestment Act, $ 787 billion

**Europe**:
- 2008/9: EERP
  - The European Economic Recovery Plan
  - National plans: for example, in Germany, Konjunkturpaket 1 und 2
Romer and Bernstein

  "A package in the range that the President-Elect has discussed (slightly over $775 billion) is likely to create between three and four million jobs by the end of 2010."

- Approach:
  stimulus x multiplier = stimulus x 1.6
  = 3.6% growth = 3 to 4 mil jobs

Cogan, Cwik, Taylor and Wieland (2009)

- CCTW use New-Keynesian models:
  ➔ Taylor (1993) (G7, wage-rigidities+RE) and New-Keynesian DSGE model of Smets and Wouters (2007)

- CCTW allow for monetary accommodation
- CCTW take into account timing of ARRA
- CCTW estimate only 1/6 of the GDP effect expected by Romer/Bernstein.
  0.6 percent rather than 3.6 percent by 2010Q4

ARRA 2009

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Increase in Federal Purchases</th>
<th>Increase in Transfers to States, Localities</th>
<th>Increase in Federal Deficit</th>
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<td>2009</td>
<td>21</td>
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GDP Effect of ARRA Spending in Smets/Wouters 07 Model of U.S. Economy

- Figure 2. Estimated Output Effects of Government Purchases in the February 2009 Stimulus Legislation. (Government purchases equal federal purchases plus 60 percent of transfers to state and local governments for purchases of goods and services)
Effect on Private Spending

The increase in GDP quickly produces a permanent contraction in private sector saving and consumption. Big reduction in investment.

Households anticipate that government debt incurred needs to be paid off with interest by raising taxes in the future. (Smets and Wouters assume lump-sum/non-distortionary taxes)

Interest rates rise from 2010 onwards only. But, crowding out of investment and consumption from the start. No multiplier.

Impact in 2010 Q4

+ .46 percent of GDP (due to G)
+ .19 percent of GDP (due to T&T)

= .65 percent of GDP

i.e. closer to ½ rather than 3 ½ million additional jobs as estimated by Romer/Bernstein.

New-Keynesian DSGE Model

- The increase in GDP quickly produces a permanent contraction in private sector saving and consumption. Big reduction in investment.
- Households anticipate that government debt incurred needs to be paid off with interest by raising taxes in the future. (Smets and Wouters assume lump-sum/non-distortionary taxes)
- Interest rates rise from 2010 onwards only. But, crowding out of investment and consumption from the start. No multiplier.
Note: Summing G and Y

If you sum up over 30 quarters (without discounting) you obtain the following result:

Sum of Government spending: -0.42

Sum of Output: 7.41

Wow! Infinite multiplier. What is going on?
What I learnt

- Don't spend, save!
- Design a government savings stimulus!
- Optimize and compare to ARRA
  - Start saving earlier (in 2010)
  - Save more (4 times as much)
  - What if the U.S. Administration had announced an American Stability PAct (ASPA) INSTEAD of the ARRA?

Note: I stick to Taylor rule but allow 1 year constant rate.

ARRA versus ASPA (“American Stability PAct”)

Taylor rule after 1-year constant interest rate

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ASPA: How government savings create happy consumers!

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09:Q1 Deep recession and zero bound

- Baseline scenario:
  - with Fed following Taylor rule, the zero bound is not binding when simulating the SW 07 model. Use SW rule instead.
- Counterfactual: consider a deeper recession, 1.5x the 09:Q1 shock, and 2x the 09:Q1 shock. The first scenario is similar to CCTW 1 year constrained.
GDP Effects: CCTW, Baseline and Counterfactuals

Conclusions for Euro Area

- T.G.S.P. (= Thank God for the Stability Pact)
- Regarding burden-sharing:
  - forget „The countries with the most fiscal room should spend more!“
  - Instead „The countries with the highest debt have room to announce more ambitious savings plans to stimulate their economy!“
  - Spillovers. CMM applies to flexible exchange rate, need to see fixed rate results.