Volker Wieland
ECB*, CFS and Goethe University of Frankfurt

Meeting of „Experts Group: Economic Forecasts“
EU Commission
Brussels, October 15, 2008

Disclaimer: Duisenberg Research Fellow. The views expressed should not be attributed to the European Central Bank or its staff.

Outline

1. A quick look at the development of an archive of macroeconomic models for policy analysis (Macro-Modelbase).
3. Some issues concerning the economic outlook in the midst of financial crisis.
1. Quantitative models for managing macroeconomic risks

- Economy-wide dynamic stochastic models that may be used by
  - central banks and finance ministries for designing stabilization policies that help reduce macroeconomic risk.
  - business economists to assess macroeconomic fluctuations and likely policy responses, as an input for risk management at asset managers, banks, other large enterprises.

A platform for model comparison: *MacroModelBase*

- Initiative of J. Taylor and V. Wieland to create a public archive of macroeconomic models on a common platform. Part of EU-sponsored network on optimal monetary and fiscal policy.
  - Tool to encourage comparative instead of insular approach to model-based research.
  - Tool to provide policy advice at central banks and treasuries by comparing competing models, or across different economies.
  - Tool for quantitative assessments of macroeconomic risks and likely policy reactions for asset managers, banks, etc.
Solving 4 US Models

Currently Solving: US ACEL05
No Fiscal Policy Shock is available for Model: US ACEL05
Elapsed time is 3.266117 seconds.
Elapsed cpu time is 1.7725 seconds.

Currently Solving: US SW07
Elapsed time is 2.428042 seconds.
Elapsed cpu time is 2.0329 seconds.

Currently Solving: G7 TAY93
Elapsed time is 22.986525 seconds.
Elapsed cpu time is 22.4122 seconds.

Currently Solving: US FRB03
Elapsed time is 72.421689 seconds.
Elapsed cpu time is 71.2725 seconds.

Total elapsed cpu time: 105.5718 seconds.
2. Effects of Monetary and Fiscal Policies


- Shocks:
  - Surprising interest rate easing, government spending package, tax refunds.

- Rules:
  - Effect of shocks depend on the systematic component of monetary and fiscal policies that continues to be followed subsequently.
  - Interesting unexplored questions concerning fiscal rules.

January 2008

In one recently released paper, The Case for Fiscal Stimulus to Forestall Economic Slowdown (January 18, 2008), the Council of Economic Advisers in the Executive Office of the President writes:

Effectively timed and temporary fiscal policy measures could help reduce the risk of a broader economic downturn ... fiscal action could boost near-term economic growth.

... research indicates that monetary policy affects the economy over time rather than immediately, with the greatest impact in the year following rate cuts, not in the year in which the cuts are made.
Reduction of federal funds rate by 3 percentage points.
Increase in government spending by 1 percent of GDP

**Table 2: GDP Increase due to Fiscal Stimulus as Estimated by Elmendorf and Furman (2008)**

<table>
<thead>
<tr>
<th>Fiscal Stimulus</th>
<th>Percent Increase in GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2nd Qtr. 2008</td>
</tr>
<tr>
<td>Sustained Increase in Federal Purchases</td>
<td>1.0</td>
</tr>
<tr>
<td>One-Off Tax Rebate (20% spent)</td>
<td>0.30</td>
</tr>
<tr>
<td>One-Off Tax Rebate (50% spent)</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Source: The calculations by Elmendorf and Furman (2008) are based on the Federal Reserve’s Model.
Table 3: GDP Increase Achieved by Fiscal Stimulus in Other Models

<table>
<thead>
<tr>
<th>Fiscal Stimulus (1 Percent of GDP)</th>
<th>Percent Increase in GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2nd Qtr. 2008</td>
</tr>
<tr>
<td>Sustained Increase in Federal Purchases</td>
<td></td>
</tr>
<tr>
<td>Taylor’s Model</td>
<td>1.1</td>
</tr>
<tr>
<td>Small ECB Model</td>
<td>0.8</td>
</tr>
<tr>
<td>One-Off Increase in Federal Purchases</td>
<td></td>
</tr>
<tr>
<td>Taylor’s Model</td>
<td>1.0</td>
</tr>
<tr>
<td>Small ECB Model</td>
<td>0.9</td>
</tr>
<tr>
<td>One-Off Tax Rebate</td>
<td></td>
</tr>
<tr>
<td>Taylor’s Model</td>
<td>0.15</td>
</tr>
<tr>
<td>Small ECB Model</td>
<td>0.0</td>
</tr>
</tbody>
</table>
Fiscal vs Monetary Stimulus?

January:
- FOMC actions will boost growth depending on systematic policy response (also exchange rate depreciation.)
- Fiscal stimulus takes more time and tax rebates may well not boost spending as much as expected.

Afterwards
- In my view Fed easings and the US$ depreciation were the main factors keeping up economic activity in the US more than most expected up to the summer.

Going forward
- government resources are better spent an the financial system rescue package than on stimulus packages.
- better think about the formulation or revision of fiscal rules than management by shocks.

3. Issues Regarding the Outlook

- Until summer
  - US Housing correction
  - Long rise in energy prices
  - Euro appreciation
  - Credit shock (financial shock)

- More recently
  - Serious threat of dramatic financial meltdown with severe consequences for real economy.
Taylor model: Risk Premium Shock

IRF of Output to $r_{10}$

IRF of Interest Rate to $r_{10}$

SW Model: Risk Premium Shock

IRF of Output to $e_{b}$

IRF of Interest Rate to $e_{b}$
Taylor model: Risk Premium Shock

SW Model: Risk Premium Shock
Issues for the Outlook

☐ More recently

➔Credit market shutdown. Serious threat of global financial meltdown with severe consequences for real economy.

➔Global rescue package: market guarantees, asset purchases, banking sector recapitalization/ deleveraging/scaling down, lower interest rates, fiscal stimulus.

☐ Long-run consequences

➔Government debt, deflation scare, Re-Inflation?

Issues for the Outlook

☐ Government debt:

➔great time for (solvent) governments to borrow. Possible long-run consequences for tax payers. Depends on how well the bailout is designed (Sweden).

☐ Deflation scare:

➔Falling commodity prices, severe recession expectation, lead to lower inflation and possibly deflation. C.w.: Lower interest rates aggressively to avoid liquidity trap (!?).

☐ Inflation:

➔Excessive debt may lead to pressure for monetization and higher inflation rates down the road.

➔Also, low interest rates with the objective of avoiding deflation played an important role in the buildup of the bubble.