Discussion of:

The Analytics of the Greek Crisis

by Gourinchas, Philippon, and Vayanos

Brent Neiman
University of Chicago

NBER IFM Program Meeting

October 2016

What They Do

1. Empirics: Greece was Different
   - Severity and non-recovery
   - Stands out even relative to Pegs
2. DSGE Model with Rich Intersectoral Linkages
   - H, NF, F, and G
   - Consider impressive range of structural shocks
3. Quantification
   - Shock decomposition
   - Cfacts – less leverage, no sudden stop, less stickiness, etc.

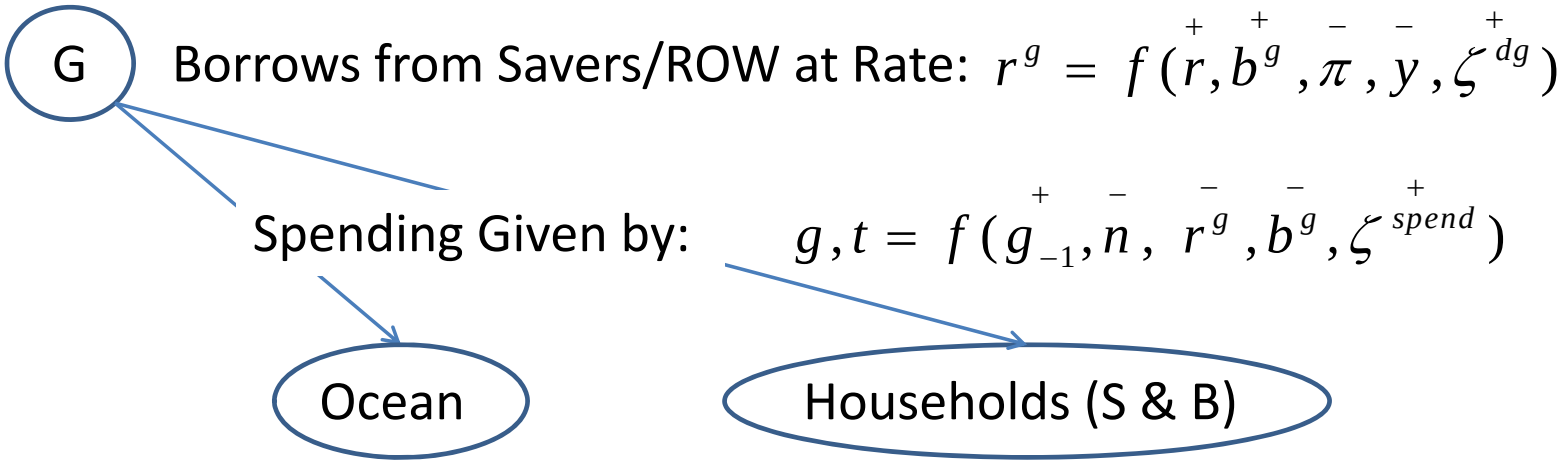
My Comments

- **Rich Sectoral Interlinkages**
- Most Surprising Conclusion
- Most Salient Omission
- What Can and Can't it Do?

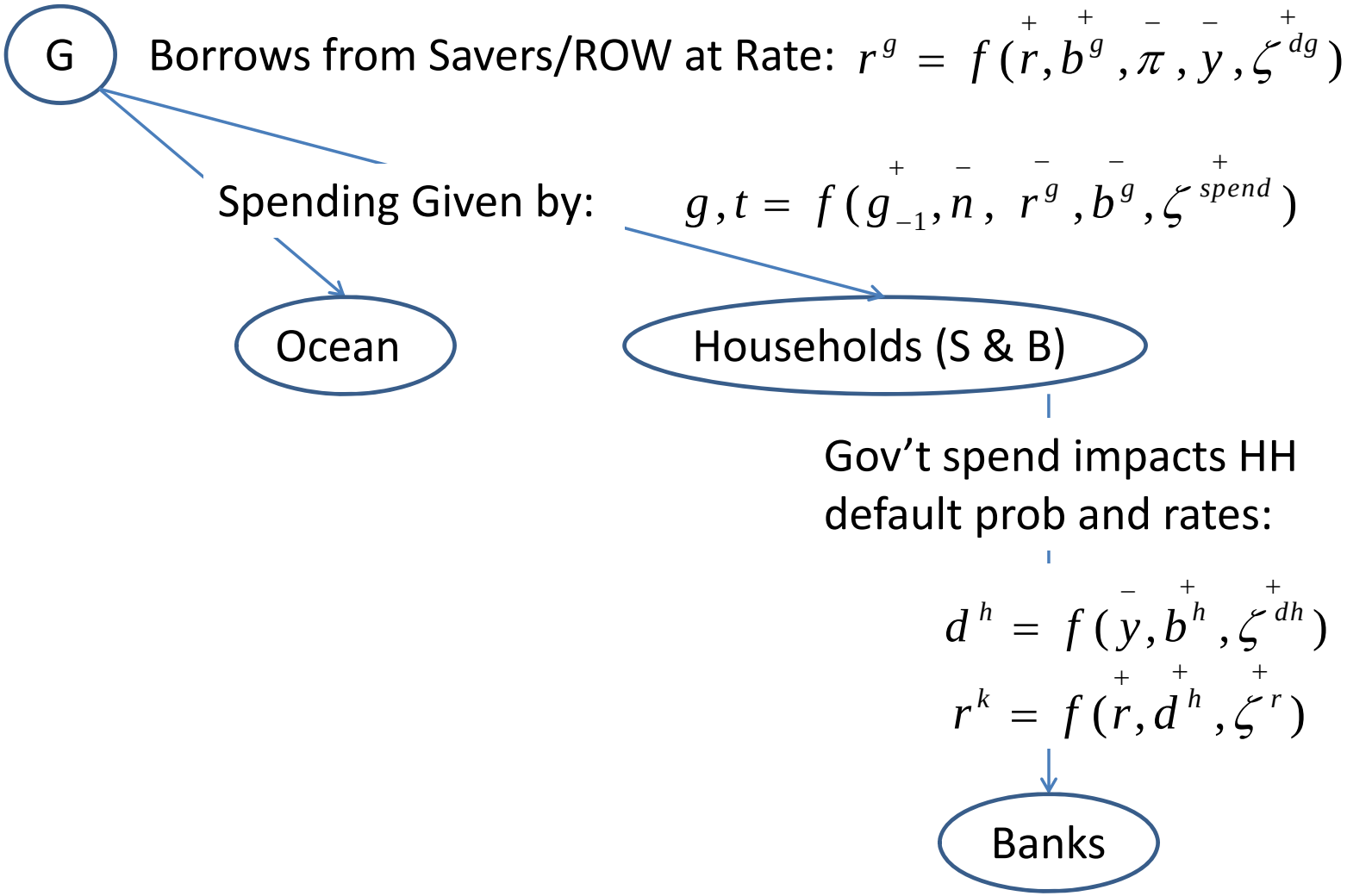
Rich Sectoral Interlinkages

G Borrows from Savers/ROW at Rate: $r^g = f(\overset{+}{r}, \overset{+}{b^g}, \overset{-}{\pi}, \overset{-}{y}, \overset{+}{\zeta^{dg}})$

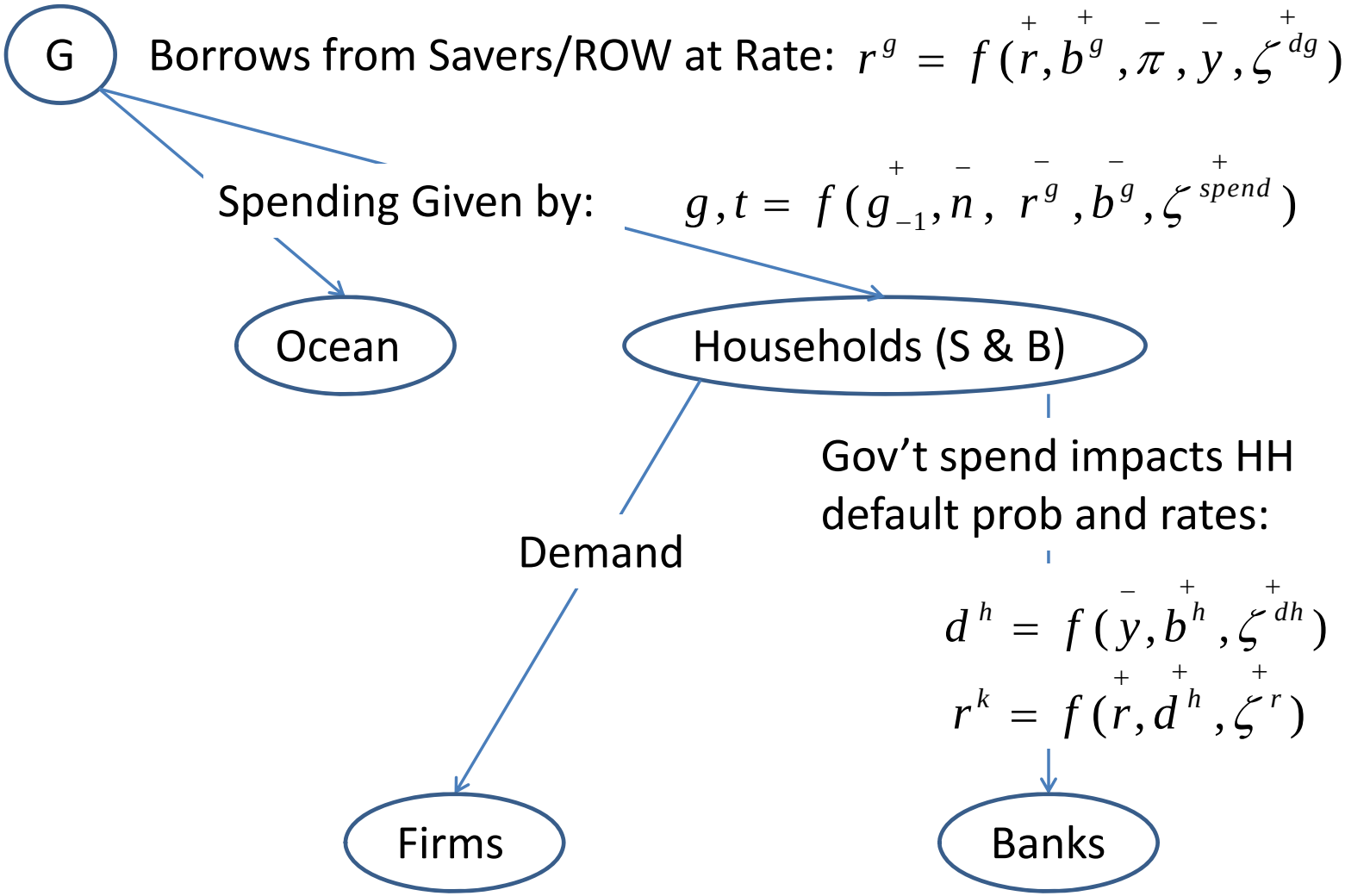
Rich Sectoral Interlinkages



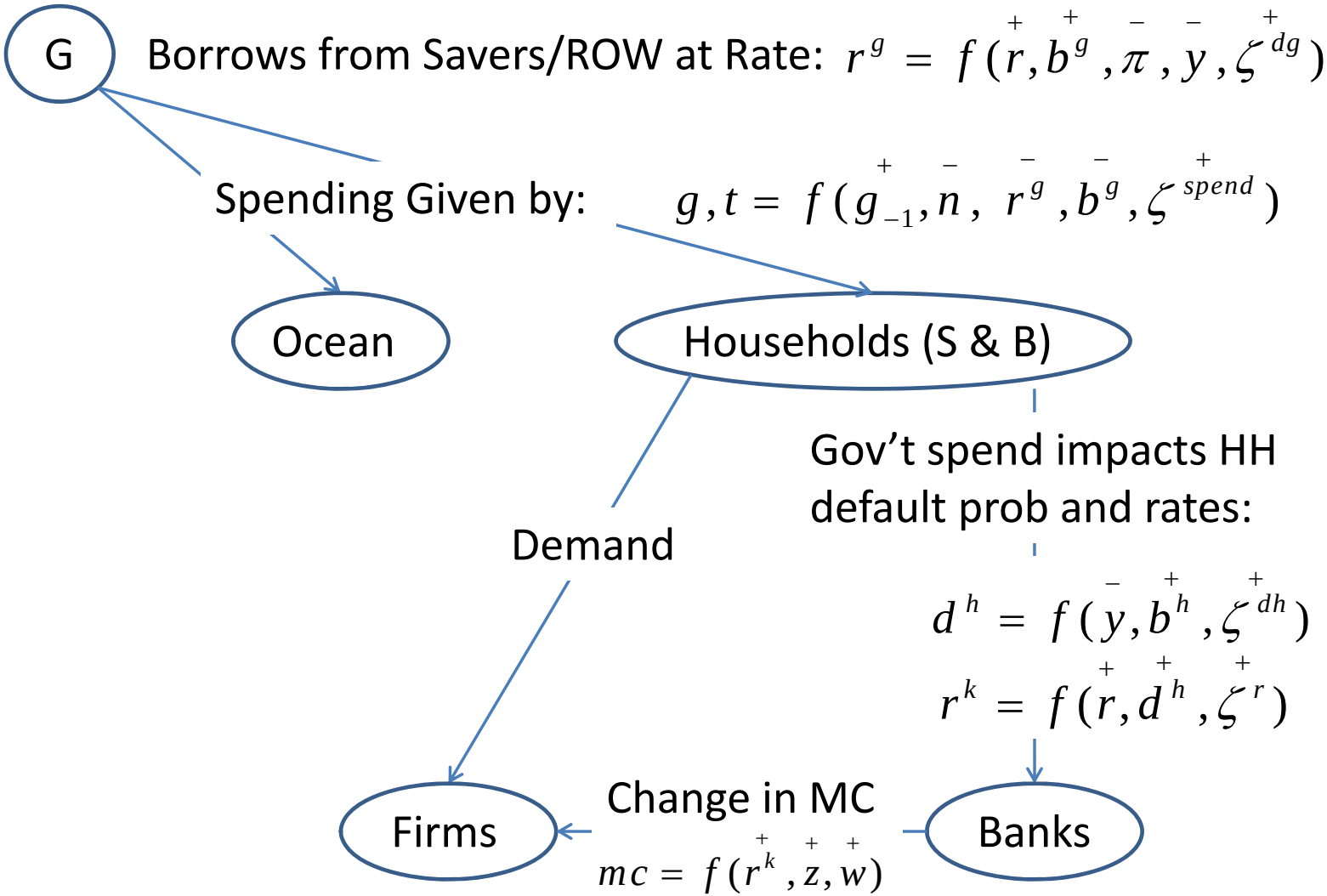
Rich Sectoral Interlinkages



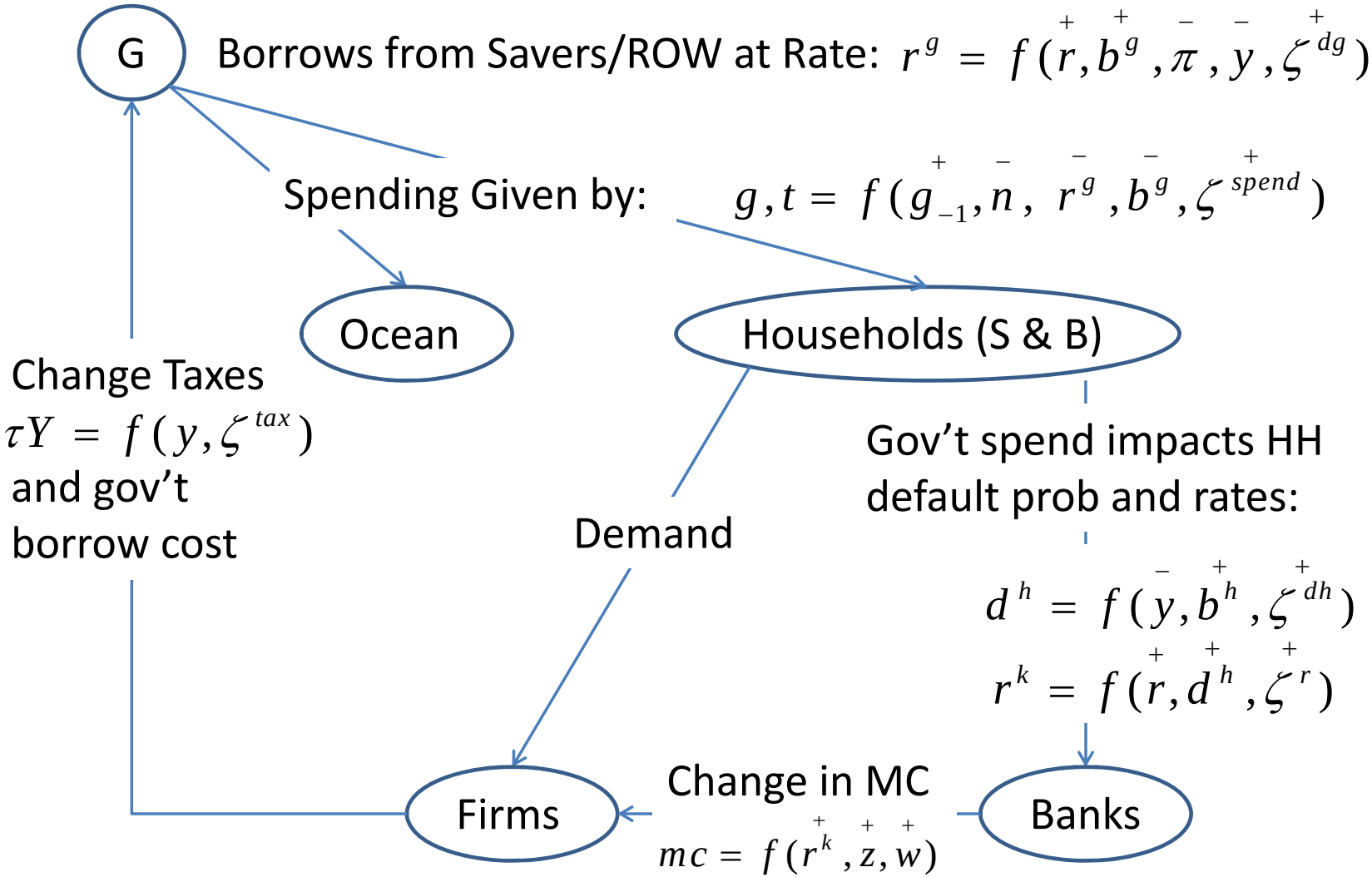
Rich Sectoral Interlinkages



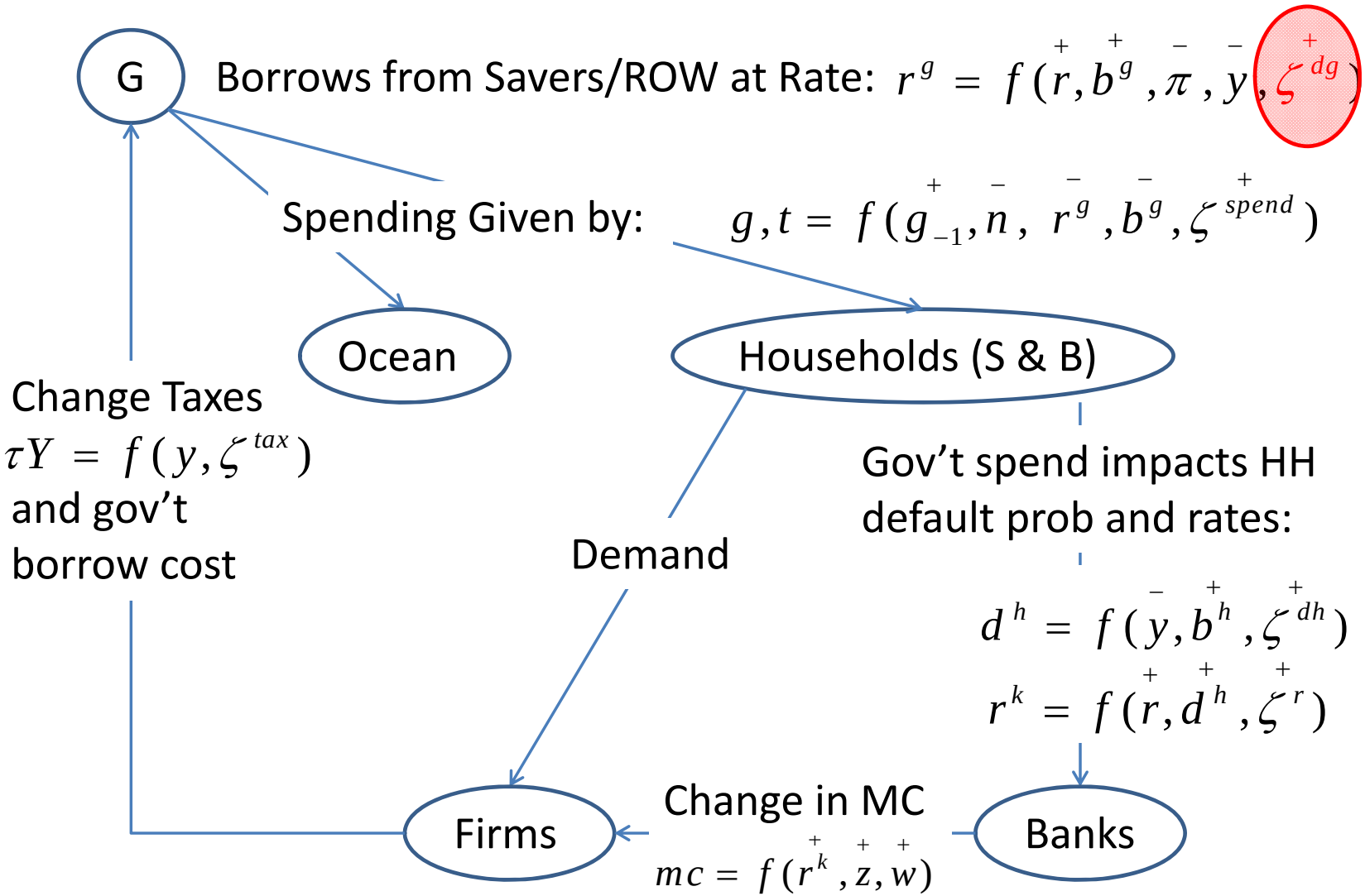
Rich Sectoral Interlinkages



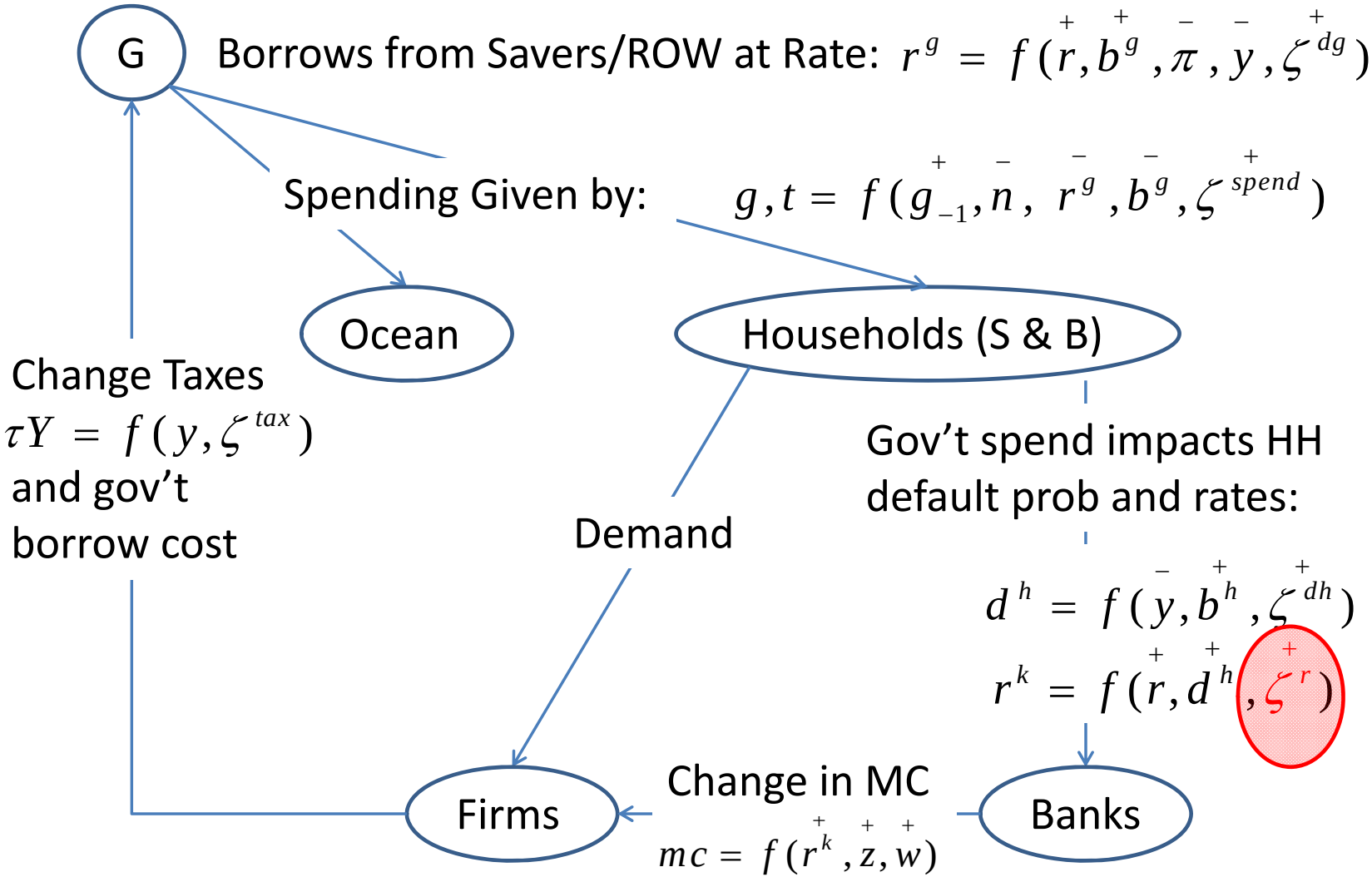
Rich Sectoral Interlinkages



Sovereign Default Shock



Sudden Stop

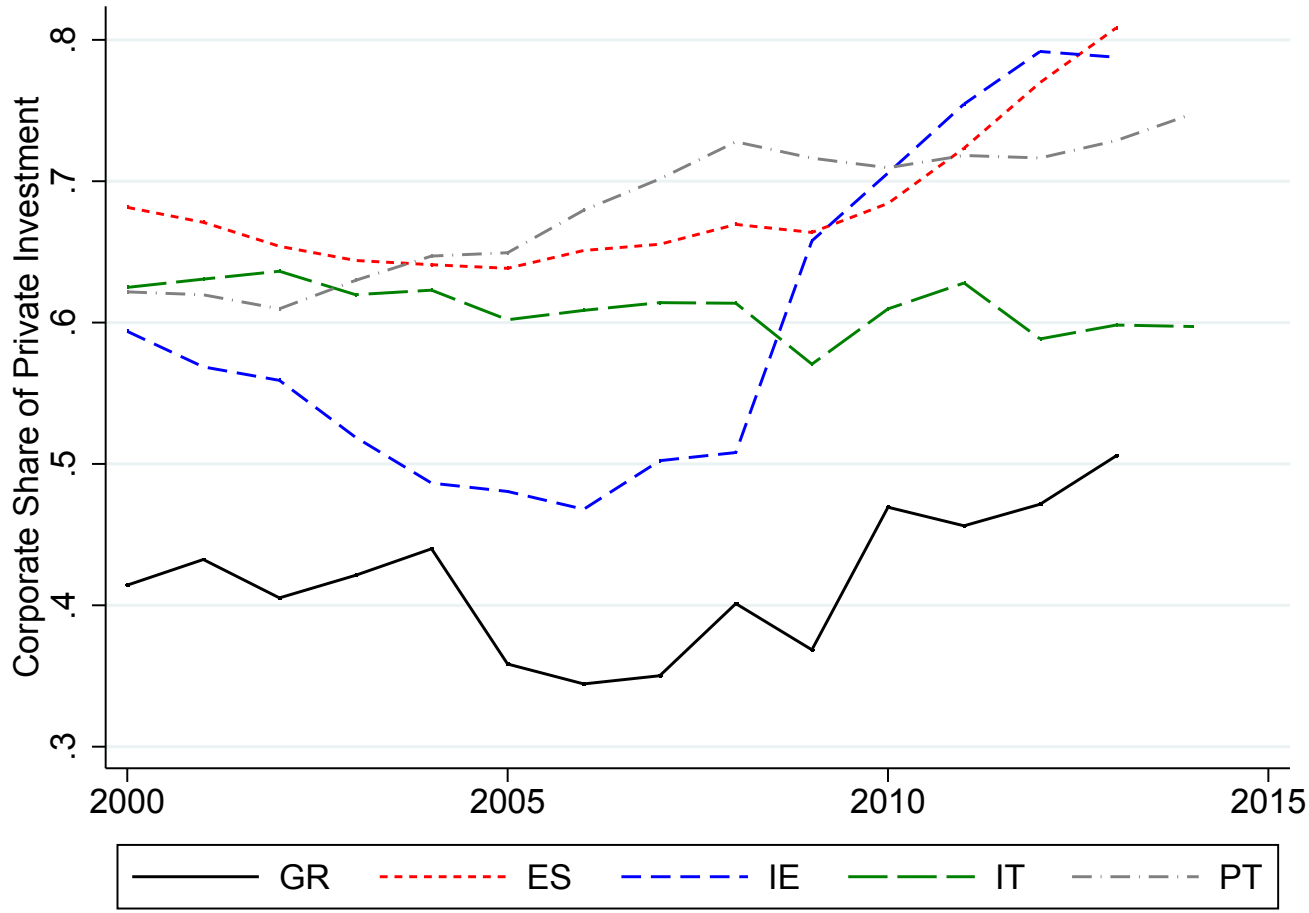

G
Borrows from Savers/ROW at Rate: $r^g = f(\overset{+}{r}, \overset{+}{b^g}, \overset{-}{\pi}, \overset{-}{y}, \overset{+}{\zeta^{dg}})$
Spending Given by: $g, t = f(\overset{+}{g_{-1}}, \overset{-}{n}, \overset{-}{r^g}, \overset{-}{b^g}, \overset{+}{\zeta^{spend}})$
Ocean
Households (S & B)
Change Taxes
$\tau Y = f(y, \zeta^{tax})$
and gov't
borrow cost
Demand
Gov't spend impacts HH
default prob and rates:
$d^h = f(\overset{-}{y}, \overset{+}{b^h}, \overset{+}{\zeta^{dh}})$
$r^k = f(\overset{+}{r}, \overset{+}{d^h}, \overset{+}{\zeta^r})$
Firms
Change in MC
$mc = f(\overset{+}{r^k}, \overset{+}{z}, \overset{+}{w})$
Banks

Rich Sectoral Interlinkages

- Extremely impressive, careful, thorough.
- Obvious comment / cost: Very hard to know what various sensitivities are and what's robust, etc.
- What can be done? Wonder if profession should head in these cases toward models with clean user-friendly interfaces ...
  - To be clear: I would also be subject to this request
  - PWT as example

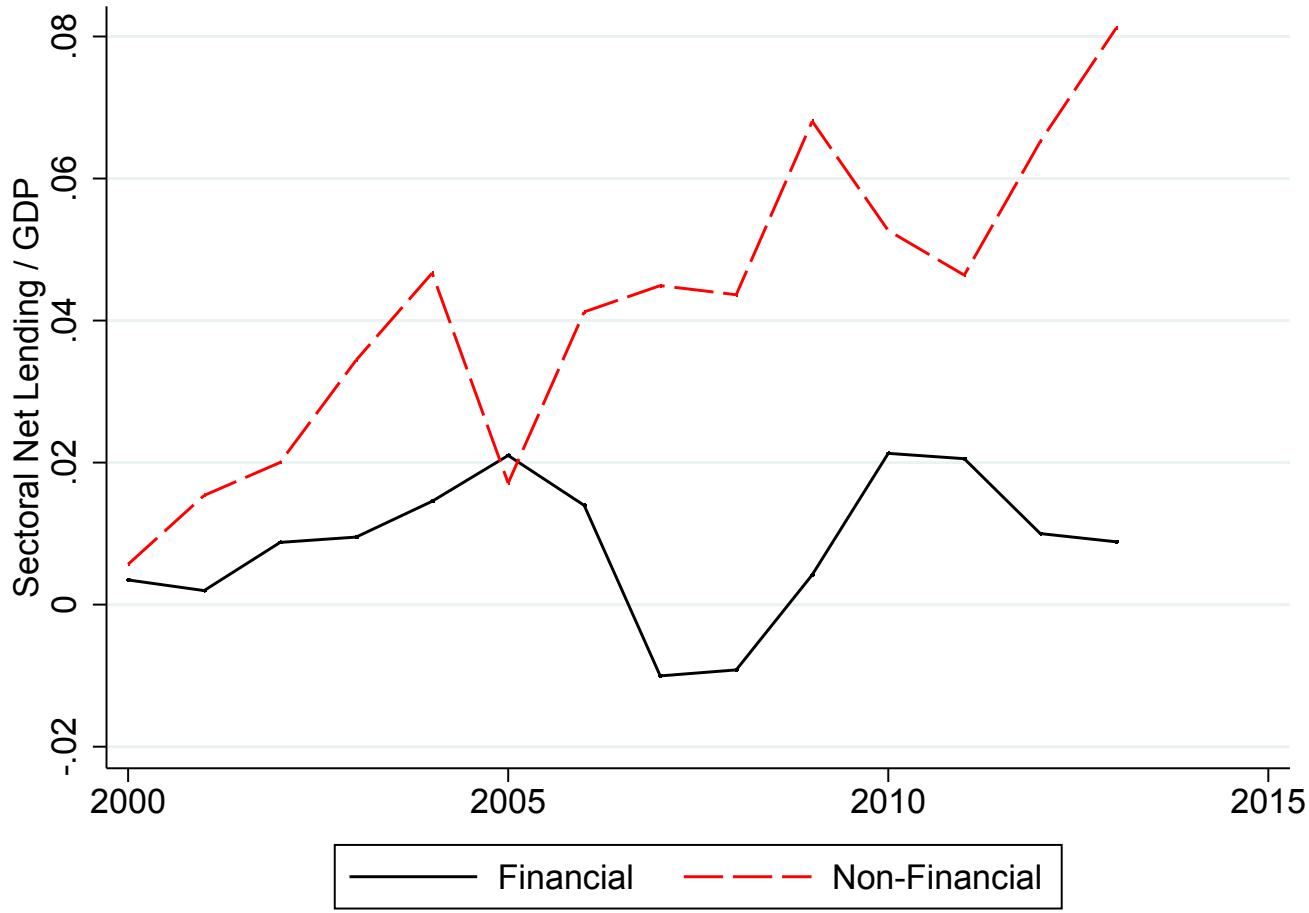
Investment Composition in EZ Crisis Countries

- What else? Calibration/estimation uses rich intersectoral and banking info, but would be good to focus on intersector-specific outcomes/fit



Sectoral Net Lending in Greece

- What else? Calibration/estimation uses rich intersectoral and banking info, but would be good to focus on intersector-specific outcomes/fit



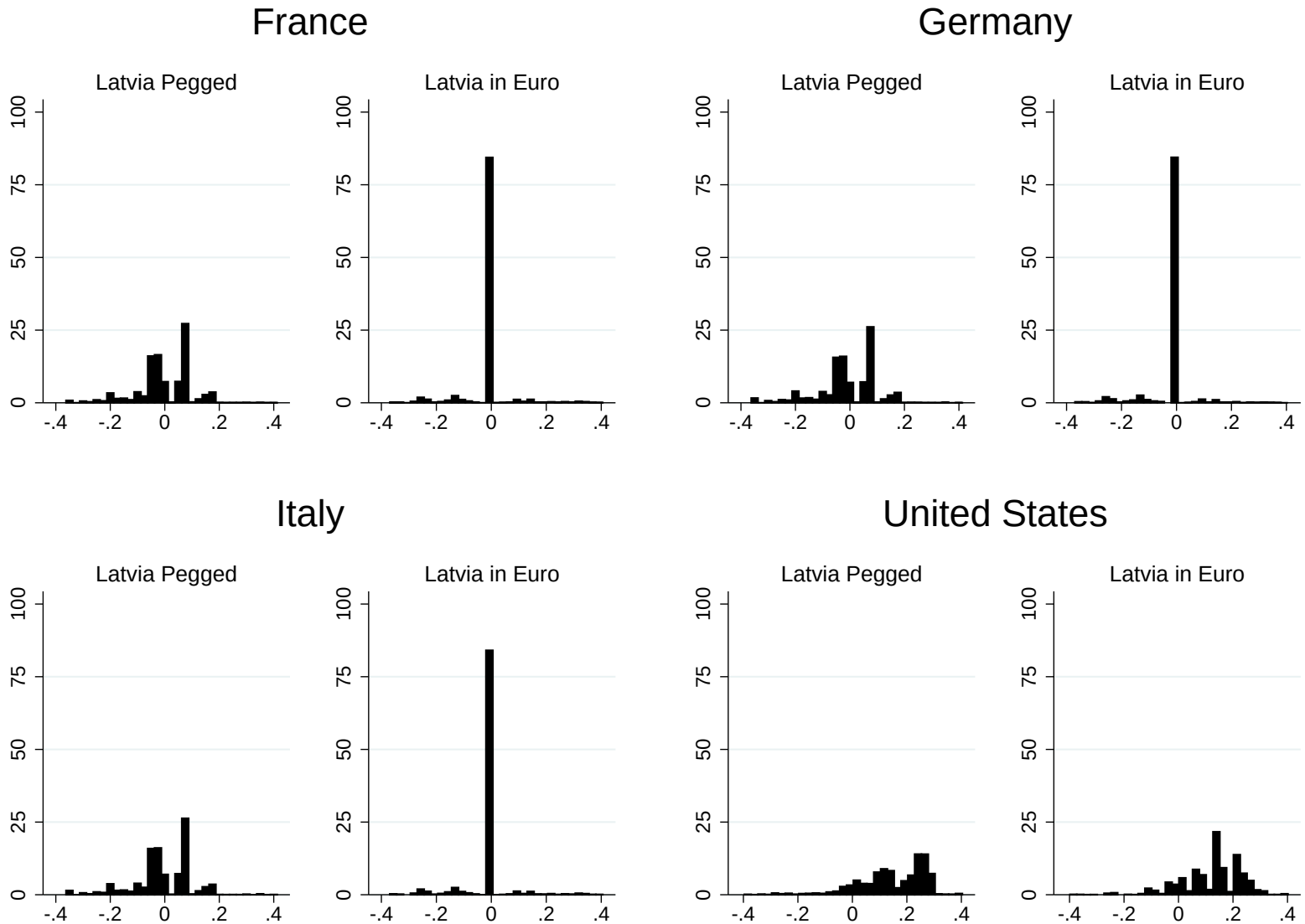
My Comments

- Rich Sectoral Interlinkages
- **Most Surprising Conclusion**
- Most Salient Omission
- What Can and Can't it Do?

Price Dynamics Crucial Even Over Such Long Horizons

- Initial conditions on debt were biggest factor, but...
- Markup shocks (product market stickiness) and nominal rigidities significantly hindered recovery
- Model and data suggest key differences between Greece (a EZ member) and hard pegs (Latvia and Estonia)

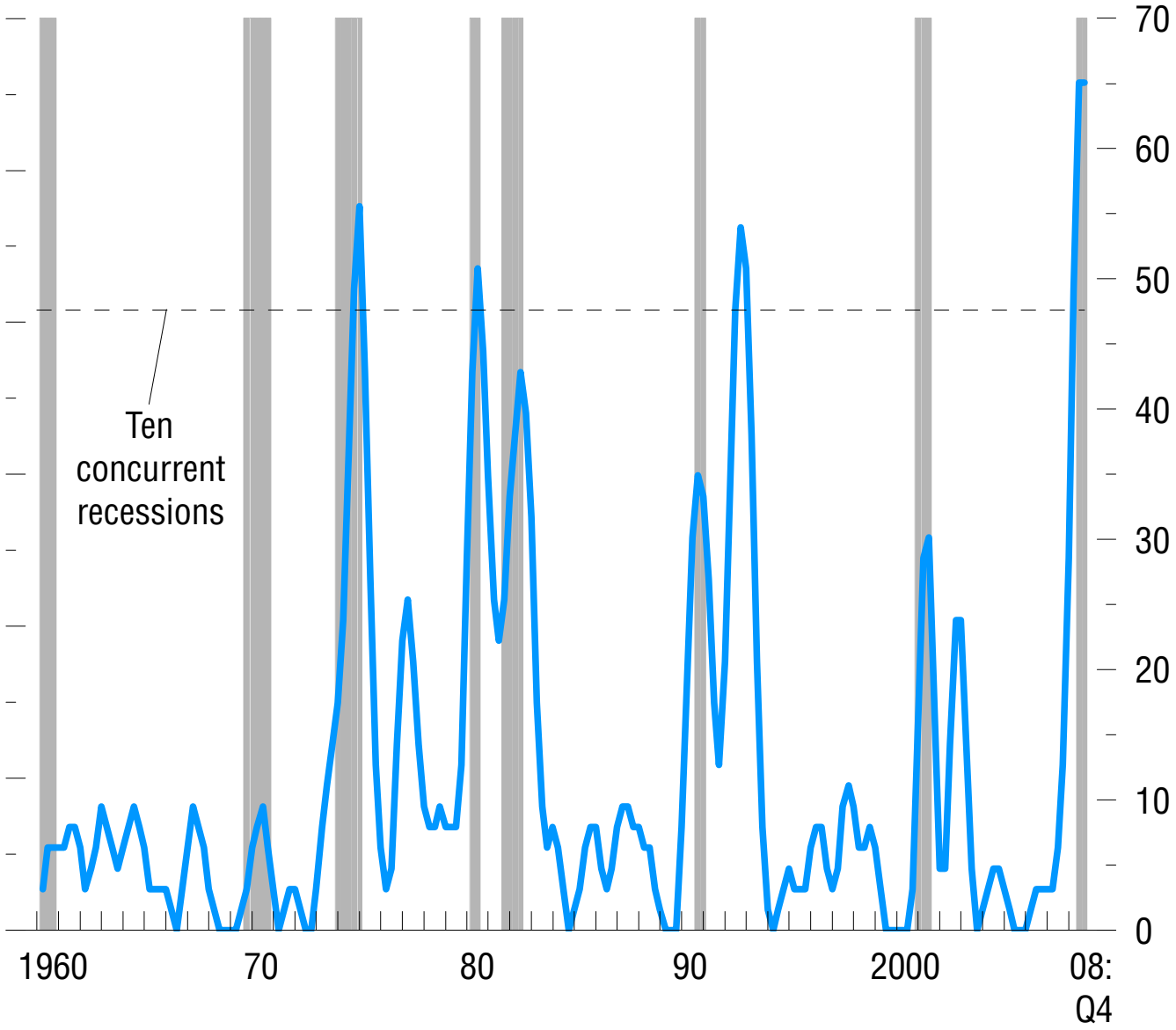
CNR (2015)


France
Latvia Pegged
Latvia in Euro
Germany
Latvia Pegged
Latvia in Euro
Italy
Latvia Pegged
Latvia in Euro
United States
Latvia Pegged
Latvia in Euro
0
25
50
75
100
-.4
-.2
0
.2
.4

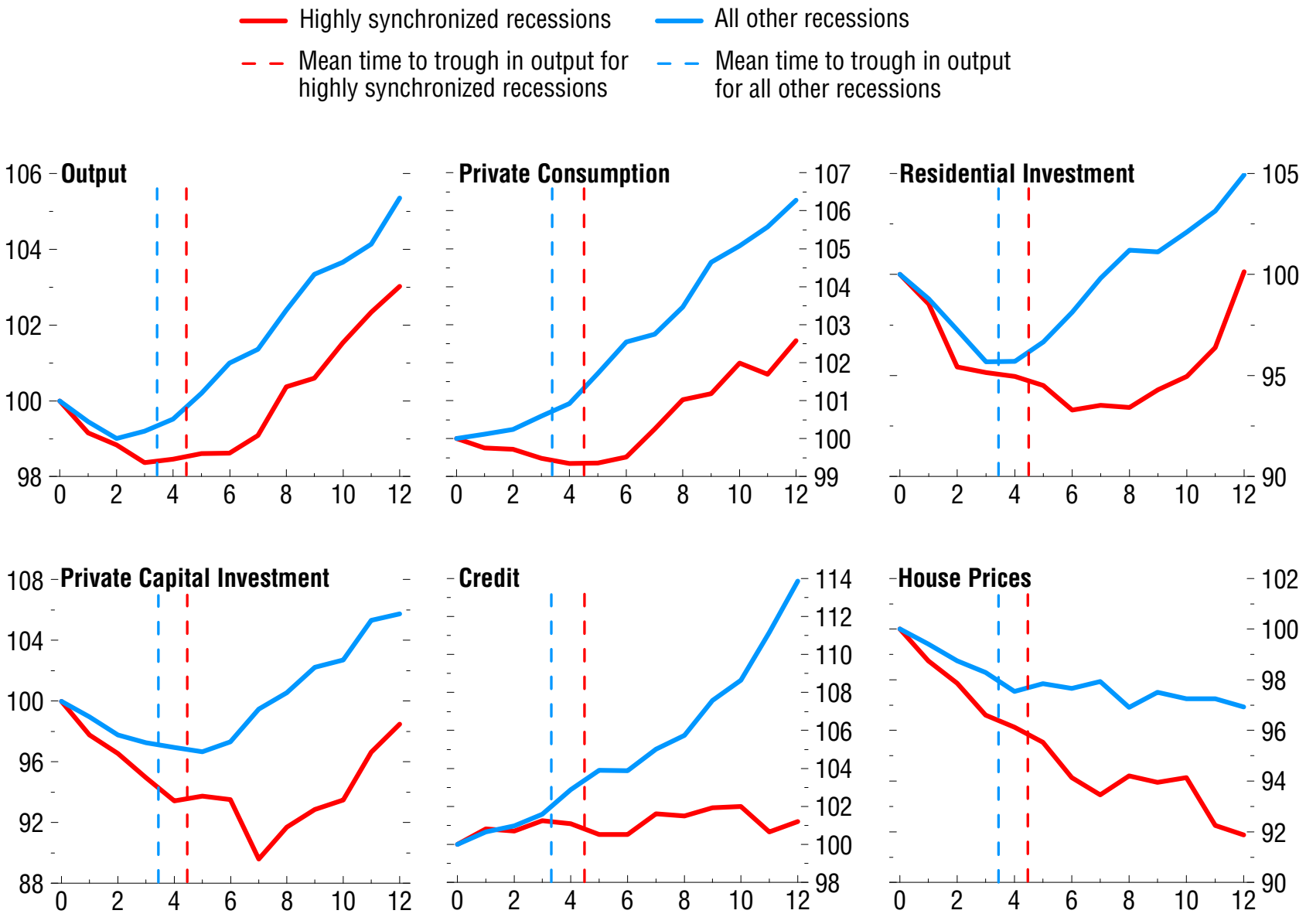
My Comments

- Rich Sectoral Interlinkages
- Most Surprising Conclusion
- **Most Salient Omission**
- What Can and Can't it Do?

Rest of World? Synchronized Recessions



Rest of World? Synchronized Recessions



Where Does Rest of World Show Up?

- Small open economy, interaction with demand in ROW captured via r and C^F

- Reasonable to focus on transmission via financial channel, but important for assessing lack of recovery 3 years later

Is Greece Different in this Regard?

- Share of durables in exports in 2009:Q2
  - World: 66 percent
  - Greece: 43 percent

- World import growth from 2009:Q2 to 2011:Q1 was 10 percent more in durables than nondurables

- Used model from EKNR (AER, 2016) to see how I/O linkages and trade patterns transmitted *foreign* spending shocks:
  - U.S.: Production declined by 1/3 of factual (08:Q3 to 09:Q2)
  - Germany: Production declined by 2/3 of factual
  - Greece: Production declined by 1/4 of factual

What to Do About This?

- Model already extremely rich, not requesting more
- But felt like more could be done within existing structure:
  - Deviate from unitary price elasticity in trade?
  - Impose and vary correlation of C^F with other shocks?
- If comment is off, some discussion would be useful to reader

My Comments

- Rich Sectoral Interlinkages
- Most Surprising Conclusion
- Most Salient Omission
- **What Can and Can't it Do?**

Do They Address Key Questions?

- To what extent was disaster inevitable given leverage?
-
-
-
-
-

Do They Address Key Questions?

- To what extent was disaster inevitable given leverage?
- Has EZ-implied nominal and real rigidity mattered?
-
-
-
-

Do They Address Key Questions?

- To what extent was disaster inevitable given leverage?
- Has EZ-implied nominal and real rigidity mattered?
- To what extent should we think about shock to public vs. private funding costs?
-
-
-

Do They Address Key Questions?

- To what extent was disaster inevitable given leverage?
- Has EZ-implied nominal and real rigidity mattered?
- To what extent should we think about shock to public vs. private funding costs?
- How did debt build-up relate to EZ entry?
-
-

Do They Address Key Questions?

- To what extent was disaster inevitable given leverage?
- Has EZ-implied nominal and real rigidity mattered?
- To what extent should we think about shock to public vs. private funding costs?
- How did debt build-up relate to EZ entry?
- What was impact of troica policies?
-

Do They Address Key Questions?

- To what extent was disaster inevitable given leverage?
- Has EZ-implied nominal and real rigidity mattered?
- To what extent should we think about shock to public vs. private funding costs?
- How did debt build-up relate to EZ entry?
- What was impact of troica policies?
- Most obvious: Methodology rules out response to (Grexit-related) uncertainty? Would Grexit have helped?

Paper Essentially Finished and Polished. Easy Follow-On?

Krugman blog: [Greece might have been all fiscal, but] "what's happening to Spain reflects the inherant problems with the euro..."

Public debt, % of GDP							
Greece	114.5	107.9	103.9	102.6	116.3	130.1	136.2
Portugal	63.6	64.7	63.6	66.3	76.9	85.0	91.0
Spain	43.0	39.6	36.2	39.7	55.2	67.4	77.0
Italy	105.8	106.4	103.4	106.1	115.2	119.6	120.3
Ireland	27.2	24.9	24.2	44.0	62.2	76.6	87.6

- Recalibrate model to Spain, Ireland, Portugal, etc., and compare shocks? Quantify Krugman quote?
- Common external environment, plus helps isolate potential for troica programs to distort extraction specifically in Greece

Conclusion

- Nice paper!
- Extremely rich and detailed model, some useful/credible quantitative answers
- Unknown robustness, but service to profession – I think of it as a "proof of concept" and people can build from here.
- Answer for Greece – way too indebted – not shocking, but nothing "Greek" about the model. Would like to see it applied elsewhere