Discussion of:
Interaction of government tiers and central banks in a federation: an empirical test

by Peter Claeys and Raúl Ramos

Josef Hollmayr

Deutsche Bundesbank

11.12.2014

What Is This Paper About?

- (Dis-)Aggregation of German government entities and empirically testing the FTPL
- Test relies on a two-pillar strategy: IRF of debt ratio on surplus shock and autocorrelation of surplus shock
- Some regional entities run active fiscal policy, rendering regional fiscal policy active in total
- Equilibrated by passive behavior of federal government

(Dis)Aggregation - How to think about it

Horizontal vs. vertical:

$$b_t = \frac{1}{\beta}(b_{t-1} + r_{t-1} - \pi_t) + \frac{G}{B}g_t - \frac{T}{B}t_t$$

(Dis)Aggregation - How to think about it

Horizontal vs. vertical:

$$b_t = \frac{1}{\beta}(b_{t-1} + r_{t-1} - \pi_t) + \frac{G}{B} g_t - \frac{T}{B} t_t$$

with $g_t = -\rho_g b_{t-1}$ and $t_t = \rho_t b_{t-1}$

(Dis)Aggregation - How to think about it

Horizontal vs. vertical:

$$b_t = \frac{1}{\beta}(b_{t-1} + r_{t-1} - \pi_t) + \frac{G}{B} g_t - \frac{T}{B} t_t$$

with $g_t = -\rho_g b_{t-1}$ and $t_t = \rho_t b_{t-1}$
together it must hold:

$$\rho_g + \rho_t > \frac{1}{\beta} - 1$$

(Dis)Aggregation - How to think about it

Horizontal vs. vertical:

$$b_t = \frac{1}{\beta}(b_{t-1} + r_{t-1} - \pi_t) + \frac{G}{B}g_t - \frac{T}{B}t_t$$

with $g_t = -\rho_g b_{t-1}$ and $t_t = \rho_t b_{t-1}$
together it must hold:

$$\rho_g + \rho_t > \frac{1}{\beta} - 1$$

Your paper instead:

$$b_t^F + b_t^L = \frac{1}{\beta}(b_{t-1}^F + b_{t-1}^L + r_{t-1} - \pi_t) + \frac{Def^F}{B}def_t^F - \frac{Def^L}{B}def_t^L \quad (1)$$

(Dis)Aggregation - How to think about it

Horizontal vs. vertical:

$$b_t = \frac{1}{\beta}(b_{t-1} + r_{t-1} - \pi_t) + \frac{G}{B} g_t - \frac{T}{B} t_t$$

with $g_t = -\rho_g b_{t-1}$ and $t_t = \rho_t b_{t-1}$
together it must hold:

$$\rho_g + \rho_t > \frac{1}{\beta} - 1$$

Your paper instead:

$$b_t^F + b_t^L = \frac{1}{\beta}(b_{t-1}^F + b_{t-1}^L + r_{t-1} - \pi_t) + \frac{Def^F}{B} def_t^F - \frac{Def^L}{B} def_t^L \quad (1)$$

with test on: $def_t^x = \rho_{def}^x b_{t-1}^x$

(Dis)Aggregation - How to think about it

Horizontal vs. vertical:

$$b_t = \frac{1}{\beta}(b_{t-1} + r_{t-1} - \pi_t) + \frac{G}{B} g_t - \frac{T}{B} t_t$$

with $g_t = -\rho_g b_{t-1}$ and $t_t = \rho_t b_{t-1}$
together it must hold:

$$\rho_g + \rho_t > \frac{1}{\beta} - 1$$

Your paper instead:

$$b_t^F + b_t^L = \frac{1}{\beta}(b_{t-1}^F + b_{t-1}^L + r_{t-1} - \pi_t) + \frac{Def^F}{B} def_t^F - \frac{Def^L}{B} def_t^L \quad (1)$$

with test on: $def_t^x = \rho_{def}^x b_{t-1}^x$

- would be interesting what instruments guarantee (or don't) a passive fiscal policy of each tier

(Dis)Aggregation - Issues

1. Data
   - Deficits for Hamburg, Bremen and Berlin are consolidated with their respective municipalities
   - All other Länders' deficits are unconsolidated
   - Missing out on various reforms and different distribution of fiscal duties

(Dis)Aggregation - Issues

1. Data
   - Deficits for Hamburg, Bremen and Berlin are consolidated with their respective municipalities
   - All other Länders' deficits are unconsolidated
   - Missing out on various reforms and different distribution of fiscal duties
2. Economics
   - Why stop at regional level? What about municipalities? Might reverse passive to active once again
   - maybe implicitly desired (or at least) incentivised that one tier is running passive policy

$\Rightarrow$ Moral hazard between regional and federal level?!

Is the methodology right?

I take as Data Generating Process a New Keynesian variant of Smets, Wouters (2003) with a fiscal sector.

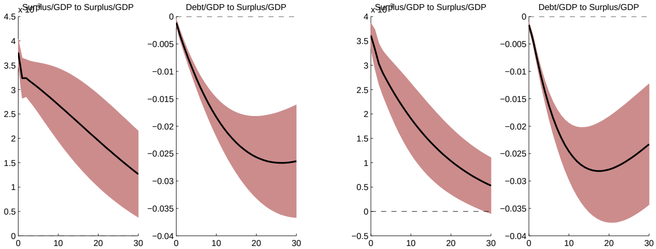
1. Active Monetary Policy, Passive Fiscal Policy $\rightarrow$ Monetarist approach or Monetary dominance
2. Passive Monetary Policy, Active Fiscal Policy $\rightarrow$ FTPL approach or fiscal dominance

Is the methodology right?

I take as Data Generating Process a New Keynesian variant of Smets, Wouters (2003) with a fiscal sector.

1. Active Monetary Policy, Passive Fiscal Policy → Monetarist approach or Monetary dominance
2. Passive Monetary Policy, Active Fiscal Policy → FTPL approach or fiscal dominance

1. Step: IRF analysis of a surplus/GDP shock in VAR:

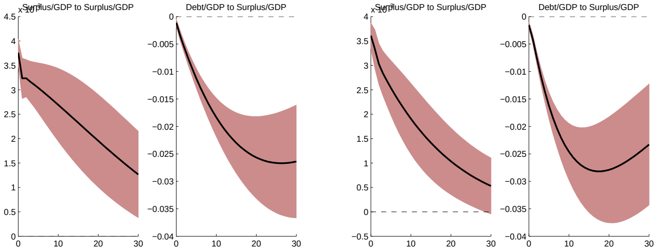


Is the methodology right?

I take as Data Generating Process a New Keynesian variant of Smets, Wouters (2003) with a fiscal sector.

1. Active Monetary Policy, Passive Fiscal Policy → Monetarist approach or Monetary dominance
2. Passive Monetary Policy, Active Fiscal Policy → FTPL approach or fiscal dominance

1. Step: IRF analysis of a surplus/GDP shock in VAR:



Monetarist FTPL

Is the methodology right?

2. Step: Autocorrelations of surplus/GDP (univariate):

	FTPL		Monetarist	
Lag	Autocorrelation	t-value	Autocorrelation	t-value
1	0.944	27.219	0.969	42.68
2	0.930	10.679	0.844	9.700
3	0.714	7.648	0.623	6.674
4	0.576	5.869	0.543	5.584
5	0.521	4.996	0.432	4.402
6	0.483	4.726	0.409	3.878
7	0.429	4.051	0.422	3.926
8	0.398	3.660	0.417	3.954
9	0.377	3.440	0.428	3.885
10	0.364	3.247	0.470	4.670

Other opinions/reasons

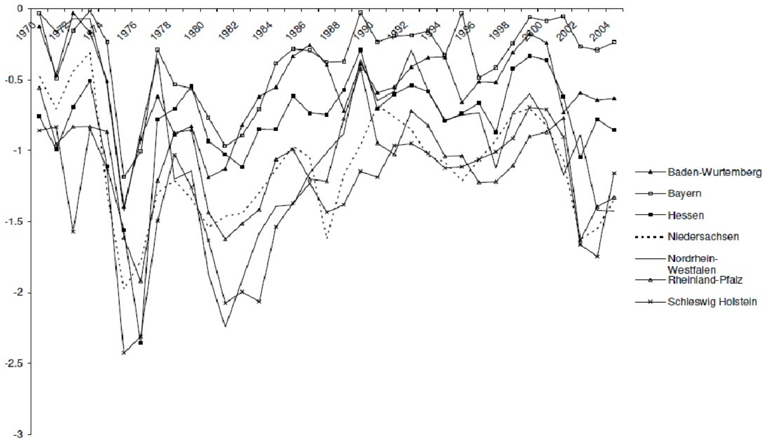
Why you shouldn't use the methodology

- Assumption of No default! Two Länder of your series defaulted...
- all Länder display only deficits (federal surplus only in the first few years) ▸ Deficits
  - econometrically still possible
  - intuitively rendered ad absurdum (think about $E_t \sum_{j=0}^{\infty} i_{t,t+j} s_{t+j}$)
  - agents would have to expect actual surpluses to overcompensate the last 35 years
- Assumption of permanent active monetary policy $\rightarrow$ then not a test on FTPL but just if any variable (eg. debt) is explosive

Minor(Other) Points

- What about price levels of different regions?
- New evidence that maturity structure seems to be important
- Differences may come from the fact who is the owner of the debt (Sustainability issues)
- Where is the role of interaction (key focus is clearly on fiscal stance)?
- What conclusion do you draw for the EMU?
- Abstract promises more than you deliver.

Deficits - Some Regions



▸ Back

Is the methodology right?

What others think about the methodology:

- Davig, Leeper (2010): Some authors have studied equilibria in which debt is not bounded in order to argue that monetarist/Ricardian equilibria are, in some sense, "general" (McCallum (1984), Canzoneri et al.(2001)). Those equilibria fall apart, however, under the plausible assumption that the **government does not have unlimited access to non-distorting taxes**.

Is the methodology right?

What others think about the methodology:

- Davig, Leeper (2010): Some authors have studied equilibria in which debt is not bounded in order to argue that monetarist/Ricardian equilibria are, in some sense, "general" (McCallum (1984), Canzoneri et al.(2001)). Those equilibria fall apart, however, under the plausible assumption that the **government does not have unlimited access to non-distorting taxes**.
- Woodford (1995): **A test for fiscal determination is meaningless**. All monetary regimes (money demand specification, monetary policy rules) of the US economy leave the price level indeterminate. If the price level is determinate at all is must be determined by fiscal means. There is no coherent alternative.

Is the methodology right?

What others think about the methodology:

- Davig, Leeper (2010): Some authors have studied equilibria in which debt is not bounded in order to argue that monetarist/Ricardian equilibria are, in some sense, "general" (McCallum (1984), Canzoneri et al.(2001)). Those equilibria fall apart, however, under the plausible assumption that the **government does not have unlimited access to non-distorting taxes**.
- Woodford (1995): **A test for fiscal determination is meaningless**. All monetary regimes (money demand specification, monetary policy rules) of the US economy leave the price level indeterminate. If the price level is determinate at all is must be determined by fiscal means. There is no coherent alternative.
- Cochrane (1998): The response function sign prediction requires a **different surplus driving process, not a difference in regimes**.

Back