GENEVA GRADUATE INSTITUTE | CENTRE FOR FINANCE AND DEVELOPMENT

Comments on “Tax and interest rates”

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Estimation and assessment of measures of the natural rate of interest: Evidence from Latin American economies with inflation targeting.

Erick Lahura, Marco Vega, Central Reserve Bank of Peru

The paper estimate the natural interest rate for Peru and Chile and uses statistical tests to inform on the ‘superior’ estimation technique - time varying parameter vector autoregression model with stochastic volatility.

What I like – is the assumption that measures of the natural rate of interest – an equilibrium concept - should be ‘stable.’

Test on two ‘similar’ countries

Do we really need statistical procedures to tell which series is more stable?

Gráfico 1. *Estimated NRI for Peru*

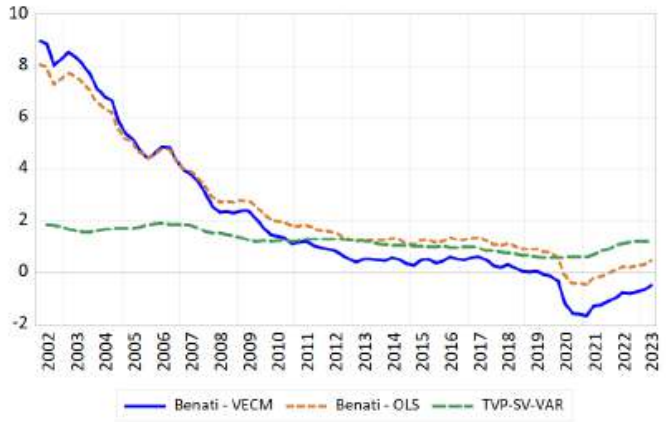
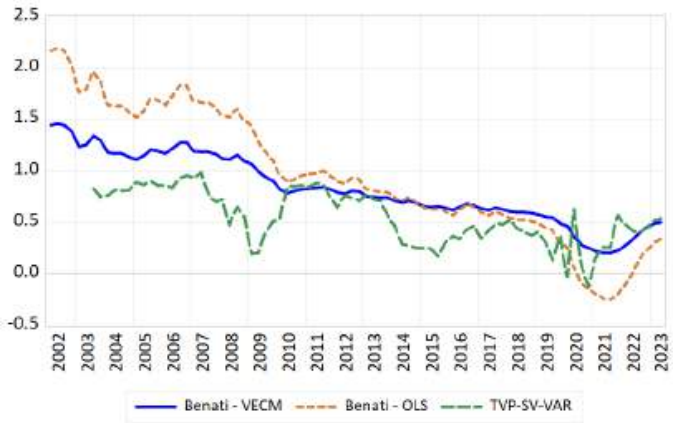


Gráfico 2. *Estimated NRI for Chile*

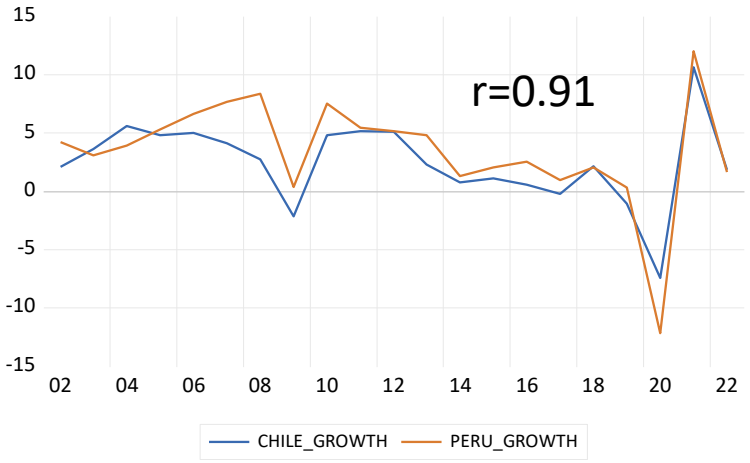


Chile: seems highly volatile?
Too low?

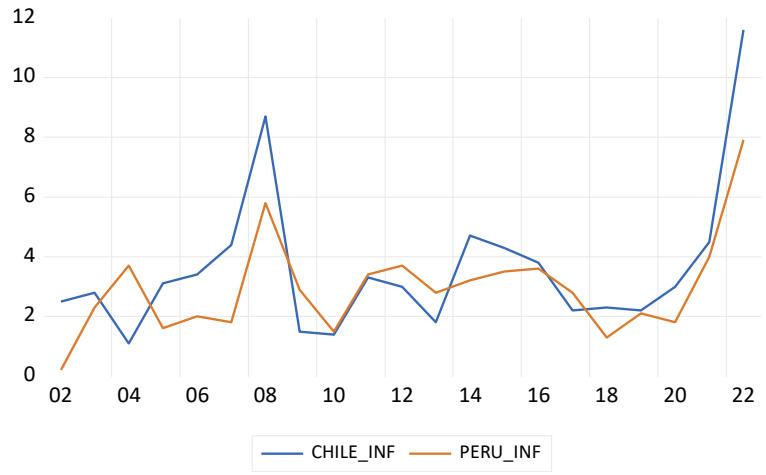
Why is Peru different from Chile?

Find the differences?

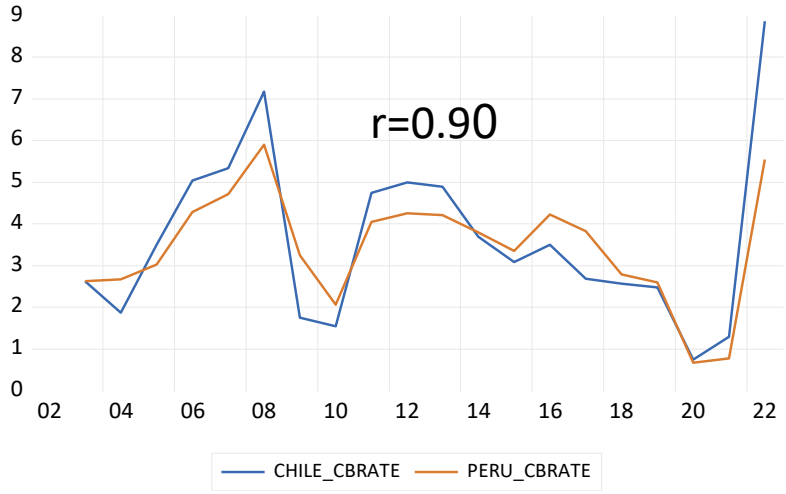
Growth



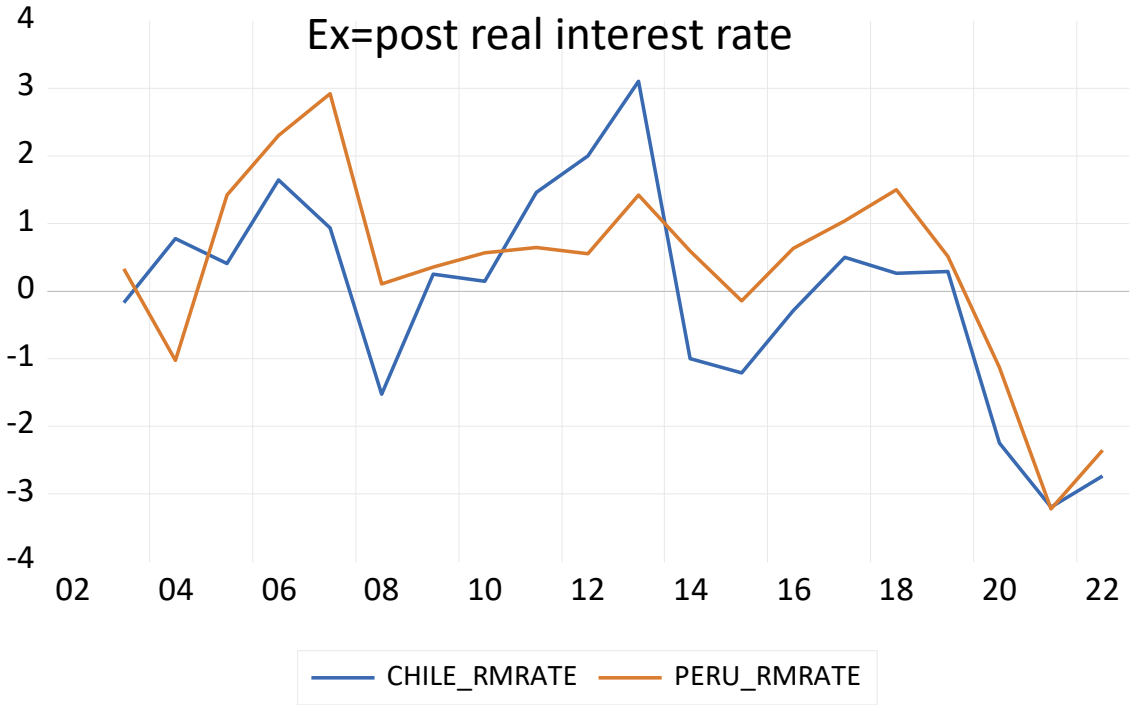
Inflation



Central Bank rate



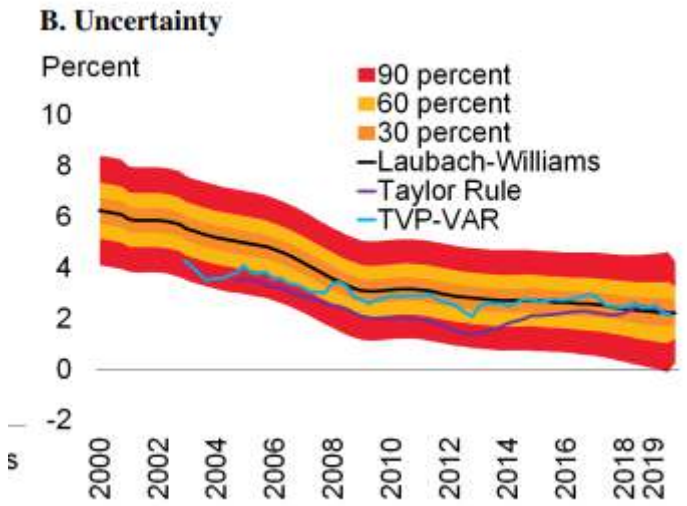
Monetary policy rates (Borio)



	CHILE_RMRATE	PERU_RMRAT
Mean	-0.036250	0.345208
Median	0.256250	0.556250

You might want to look at

Also used the real exchange rate in the TVP specification lower the ‘weight’ of the real interest rate in the VAR



POLICY RESEARCH WORKING PAPER 9711

WORLD BANK GROUP
Prospects Group
June 2021

Neutral Real Interest Rates in Inflation Targeting Emerging and Developing Economies

Franz Ulrich Ruch

Wealth taxes and firms' capital structures: Credit supply and real effects.
H. Rincon, A. Granados, J.-L. Peydró, M. Sarmiento, Central Bank of Colombia

- Recap: analyze a 'natural' experiment 'unanticipated' wealth tax in Columbia.
- Results: wealth tax had adverse effects on bank lending – volume and cost to taxed firms: affected investment and performance.

- Excellent research question and data
- Welfare considerations: - this is a partial equilibrium model – no general economic welfare implications – no counterfactual – an equivalent increase in income or sales tax.

Econometric issues

Selection bias – the treated firms were not randomly selected – they had more cash (wealth) and differed in many other dimensions from non-treated firms.

One way to address this is to use discontinuity analysis

– compare firms above and below the cutoff.

Table 1. The sample: Financial variables at the firm-level

	Treated					Control					Mean differences
	Mean	SD	P25	P75	P90	Mean	SD	P25	P75	P90	
ank credit	199	383	37	215	406	144	304	29	154	296	55,0*
oan rate (%)	15,32	5,77	11,14	18,18	24,00	15,91	5,74	11,89	18,69	24,41	-0,6
ssets	3.722,4	3.152,6	2.174,5	4.206,9	6.235,5	2.748,5	3.457,8	1.473,7	3.010,1	4.446,1	-973,9*
iabilities	2.507,5	3.139,2	981,9	2.945,4	4.970,9	1.929,4	3.424,2	693,4	2.131,0	3.580,1	-578,0*
apital	1.215,0	191,5	1.092,9	1.370,8	1.447,2	819,1	211,3	653,3	943,5	1.111,7	-395,9*
ebt-to-Cash (ratio)	0,67	0,21	0,31	0,78	0,82	0,60	0,23	0,26	0,73	0,79	0,07*
ebt-to-Assets (ratio)	0,81	0,13	0,47	0,71	0,91	0,76	0,14	0,53	0,72	0,84	0,05*
nvestment	49,5	221,0	15,4	85,5	100,0	35,4	197,3	11,2	48,4	63,0	14,1*
evenues	6.908,8	11.439,2	2.489,7	7.494,5	14.093,8	4.890,7	6.029,0	1.813,2	5.616,2	9.773,8	-2.018,1*
rade credit to abilities (ratio)	0,23	0,05	0,05	0,37	0,53	0,25	0,06	0,05	0,40	0,56	0,02
lumber of firms	1.562					3.757					

Interpretation of the results

Table 1. The supply of bank credit and the wealth tax on SMEs

VARIABLES	(1) Log credit$_{b,f,q}$	(2) Log credit$_{b,f,q}$	(3) Log credit$_{b,f,q}$	(4) Log credit$_{b,f,q}$
Post$_q$	0.0836	0.0825		
	(0.0578)	(0.0664)		
Post$_q$ x Treated$_f$	-0.0794***	-0.0871***	-0.0783***	-0.0632***
	(0.0252)	(0.0240)	(0.0169)	(0.0174)
Treated$_f$	0.1232***	0.1371***	0.1366***	0.1372***
	(0.0263)	(0.0221)	(0.0234)	(0.0248)
High-Leverage$_{f,q-1}$ x Post$_q$ x Treated$_f$		-0.0243***	-0.0214***	-0.0207***
		(0.0553)	(0.0032)	(0.0022)
High-Leverage$_{f,q-1}$	-0.0934**	-0.0891*	-0.0827*	-0.0973***
	(0.0322)	(0.0312)	(0.0308)	(0.0301)
Observations	71,406	71,406	71,406	71,406
R-squared	0.47	0.47	0.48	0.51
Firm FE	YES	YES	YES	YES
Bank FE	NO	YES	YES	YES
Bank-Time FE	NO	YES	YES	YES
Region-Time FE	NO	NO	YES	NO
Region-Sector-Time FE	NO	NO	NO	YES

Credit substitution between treated and non treated?

Where did these disappear to?

Treated firms enjoy more credit
What happened to treated firms:
+0.0836-0.0794 ≈ 0

What happens to total bank credit?

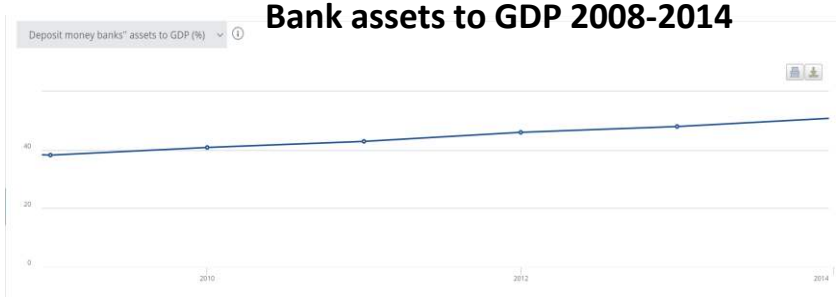
High leverage firms are affected !

Check specification – seems like fixed effects don't matter.

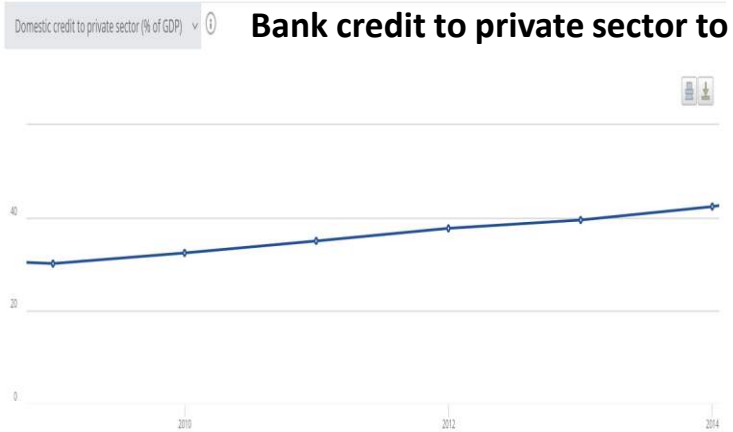
Zooming out

No aggregate credit squeeze. However, monetary tightening.

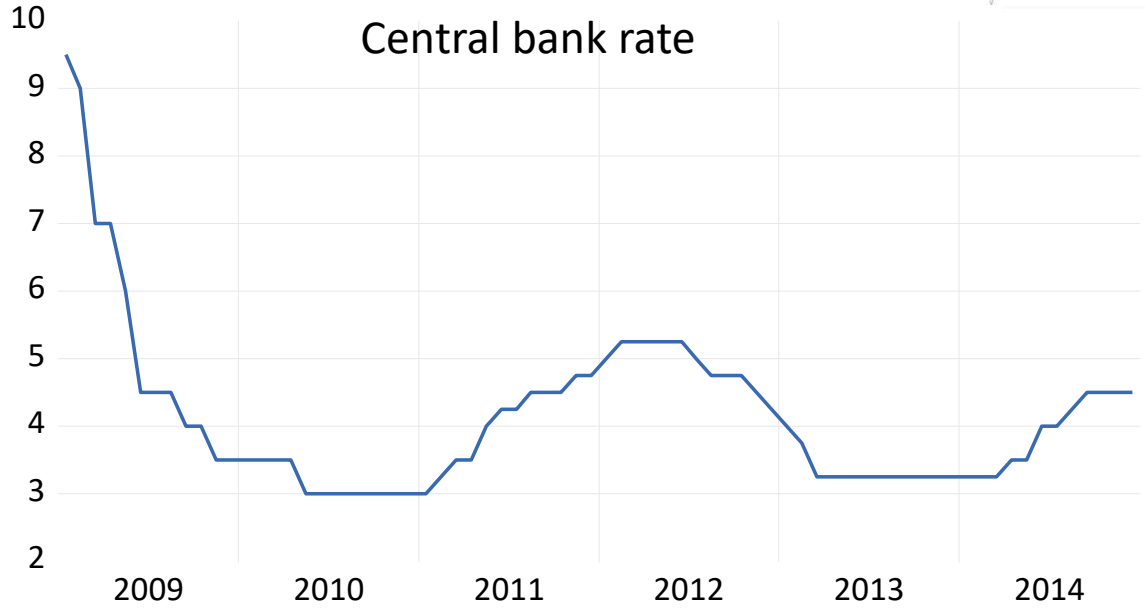
Bank assets to GDP 2008-2014

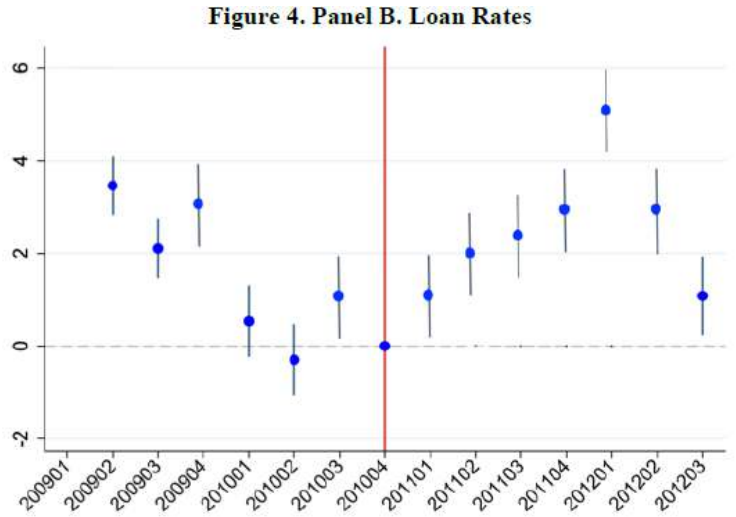


Bank credit to private sector to GDP 2008-2014



COLOMBIA_CBRATE





Results continued

No argument with the basic conclusion: taxes have real effects on those taxed.

A negative shock to their balance sheets.

However – the backdrop (macro) is important

Some puzzles : why would a one-off tax affect bank-firm long term relationship?

Why do high leverage firms hold so much cash?