

Panel Discussion: The Risks in the Equity and Insurance Markets During the Low-Rate Environment

Motohiro Yogo

Princeton University and NBER

November 22, 2021

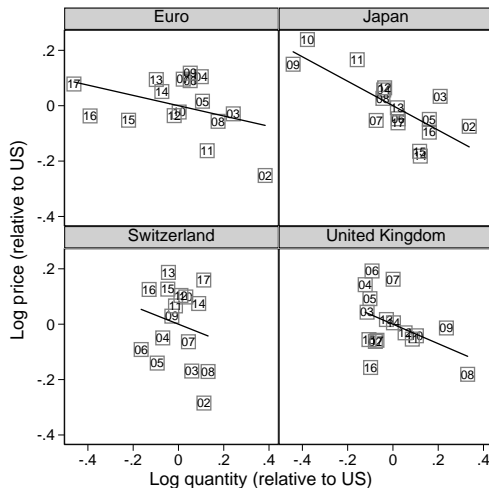
Lessons from the European sovereign debt crisis and the Euro QE

- ▶ Kojen and Yogo (2020), “Exchange Rates and Asset Prices in a Global Demand System,” NBER Working Paper 27342.
- ▶ Kojen, Koulischer, Nguyen, and Yogo (2021), “Inspecting the Mechanism of Quantitative Easing in the Euro Area,” *Journal of Financial Economics*.

Relative asset quantities and prices

- ▶ Fiscal and monetary policy (QE and foreign exchange reserves) change the quantity of government debt.
- ▶ Fiscal and monetary policy cycles happen at different times around the world.
- ▶ Movements in the relative quantities of debt.
- ▶ Asset prices rise and currency appreciates when the relative quantity of debt falls.

Relative long-term debt quantity and price

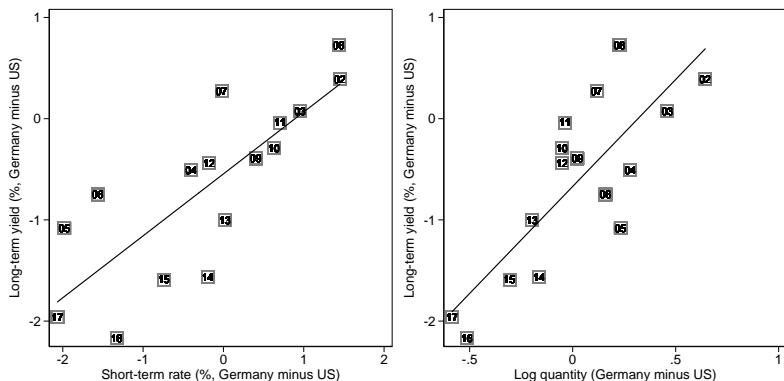


Source: Koijen and Yogo (2020, Figure 1)

European sovereign debt crisis

- ▶ What explains the long-term yield spread between
 - ▶ Germany and the US?
 - ▶ Southern euro and Germany?
- ▶ Decompose annual changes into
 1. Macro variables (including equity quantities).
 2. Short-term rates.
 3. Debt quantities.
 4. Reserves.
 5. Latent demand.

Long-term yield spread between Germany and the US



Source: Koijen and Yogo (2020, Figure C1)

Variance decomposition of long-term yield spreads

Variable	Germany – US	Southern euro – Germany
Macro variables	-0.02 (0.24)	0.64 (0.13)
Short-term rates	0.53 (0.16)	0.00 (0.00)
Debt quantities	0.15 (0.06)	0.14 (0.04)
Reserves	0.20 (0.20)	0.04 (0.03)
Latent demand	0.14 (0.12)	0.19 (0.12)
North America	-0.02 (0.03)	0.01 (0.01)
Europe	0.04 (0.07)	0.13 (0.08)
Pacific	0.02 (0.05)	0.01 (0.00)
Offshore financial centers	0.07 (0.10)	0.04 (0.02)
Emerging markets	0.00 (0.01)	0.00 (0.00)
Other countries	0.01 (0.01)	-0.01 (0.01)
Observations	15	45

Source: Kojien and Yogo (2020, Table 8)

Euro QE

- ▶ Euro QE decreased government bond yields by 65 basis points through 2017Q4.
- ▶ Heterogenous effects across countries because purchases proportional to capital key rather than debt outstanding.
- ▶ Could recapitalize financial institutions.
- ▶ Estimate the impact on asset valuation across countries and sectors.

Asset valuation effects by region and investor sector

Investor	Holding (billion)	Duration		Gain (billion)
		Total	Average	
Panel A: Nonvulnerable countries				
Banks	1,346	6,694	5.0	44
Mutual funds	895	6,795	7.6	44
ICPF	1,284	12,622	9.8	82
Households	32	137	4.3	1
Other	217	1,297	6.0	8
Total	3,774	27,545	7.3	179
Panel B: Vulnerable countries				
Banks	963	3,919	4.1	25
Mutual funds	333	1,700	5.1	11
ICPF	493	3,288	6.7	21
Households	232	1,477	6.4	10
Other	162	1,039	6.4	7
Total	2,183	11,423	5.2	74
Panel C: Foreign investors				
Foreign	4,114	24,912	6.1	162

Source: Kojien et al. (2021, Table 14)