Sovereign Risk

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Introduction

- Sovereign debt: brief introduction
- Debt repayment and sovereign defaults
  - Why do countries repay their debts?
- Applications to the recent European crisis

Sovereign debt

- A sovereign bond is a government promise to pay a stipulated amount at a future date
- Example: *Bojos bond*
  - We, the bojos class of 2018, promise to pay the holder of this bond \$100, on January 27, 2019.

86.34

UNITED STATES SAVINGS BOND

25

THE UNITED STATES OF AMERICA

TEN YEARS FROM THE ISSUE DATE HEREOF WILL PAY

TWENTY-FIVE DOLLARS

25

ISSUE DATE
WHICH IS THE FIRST DAY OF

APRIL 1944
(MONTH) (YEAR)

A

To

Morris Rieger
417 Mapleton Ave
Boulder Colo
OR
Mrs Rebecca E Rieger

293 650

PAID $ 105.09
American
Security Bank, N.A.
Wisconsin Avenue Office
Washington, D. C. 1075

By

U.S. NAVY
ISSUING AGENT'S
MAY 8 1944
DATING STAMP
CLEVELAND
OHIO

WAR SAVINGS BOND SERIES E

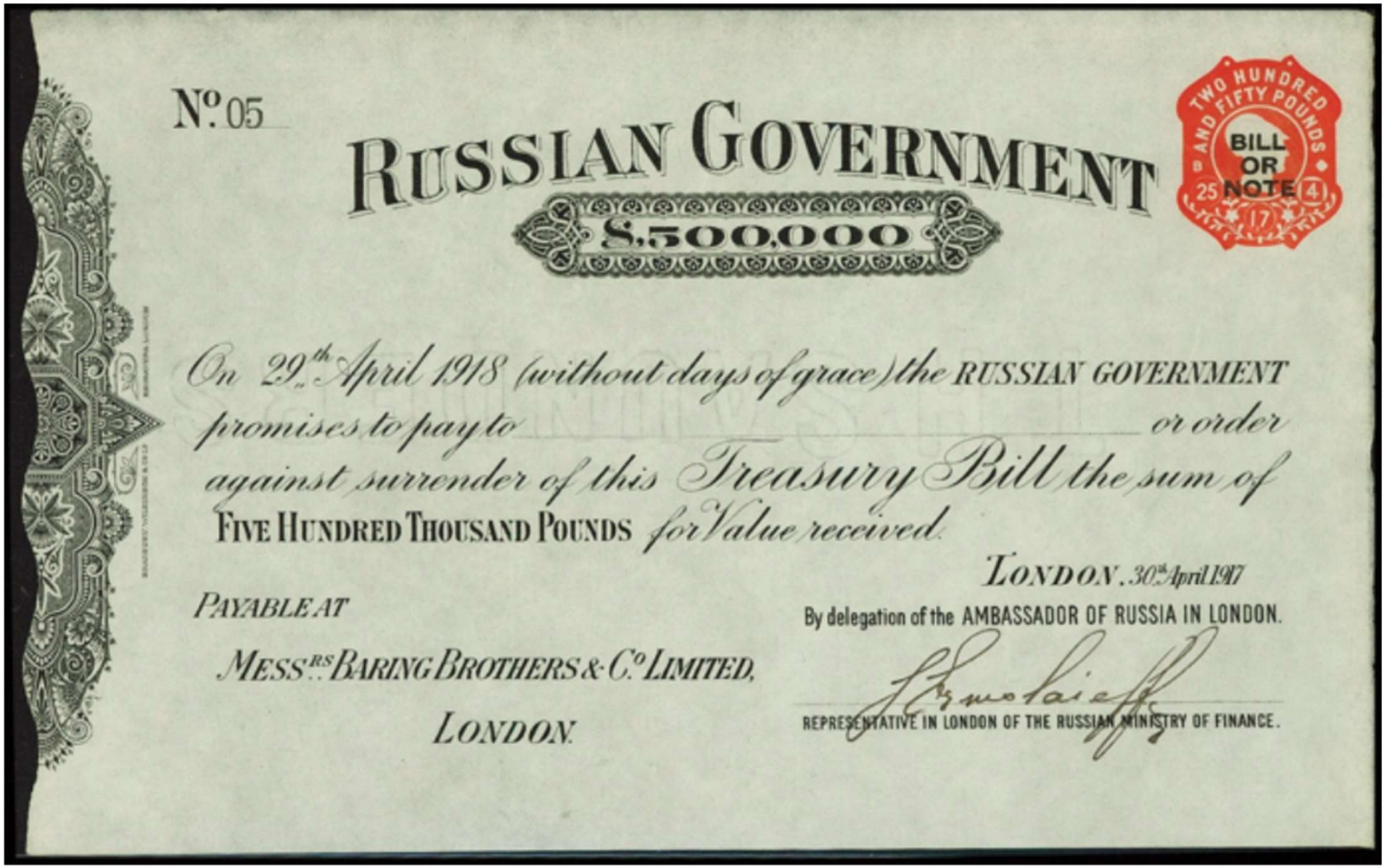
THIS BOND IS ISSUED UNDER AUTHORITY OF THE SECOND LIBERTY BOND ACT, AS AMENDED, AND IS SUBJECT TO THE TERMS AND CONDITIONS STATED ON THE BACK HEREOF. IT WILL BE VALID ONLY IF DULY INSCRIBED AND DATED, AND DELIVERED BY AN AUTHORIZED AGENT FOLLOWING RECEIPT OF PAYMENT THEREFOR.

TREASURY DEPARTMENT
WASHINGTON

Henry Morgenthau Jr.
Secretary of the Treasury

Q 476 216 626 E
A

NOT TRANSFERABLE



No. 05

RUSSIAN GOVERNMENT

£500,000

TWO HUNDRED AND FIFTY POUNDS
BILL OR NOTE
25 4 17

On 29th April 1918 (without days of grace) the RUSSIAN GOVERNMENT *promises to pay to* _____ *or order against surrender of this Treasury Bill the sum of* FIVE HUNDRED THOUSAND POUNDS *for Value received.*

London, 30th April 1917

PAYABLE AT

Messrs. Baring Brothers & Co. Limited,

London.

By delegation of the AMBASSADOR OF RUSSIA IN LONDON.

REPRESENTATIVE IN LONDON OF THE RUSSIAN MINISTRY OF FINANCE.

SEVEN PER CENT

FEBRUARY 20 1863.

Confederate States of America

LOAN,

Authorized by the Act of Congress C. S. A. of February 20th 1863.

No 31335 — $1000 — $1000 — No 31335

On the first day of July 1868 the Confederate States of America will pay to the Bearer of this Bond at the Seat of Government or at such place of deposit as may be appointed by the Secretary of the Treasury the Sum of **ONE THOUSAND DOLLARS,** with Interest thereon from date, at the rate of Seven per Cent per annum, payable semi-annually on the surrender of the annexed Coupons. This Contract is authorized by An Act of Congress approved 20th February 1863, Entitled "An Act to authorize the issue of Bonds for funding Treasury Notes, and is upon the Express Condition that said Confederate States may from time to time, extend the time of payment for any period not exceeding thirty years from this date, at the same rate of interest, upon the surrender of the Bond.

In Witness Whereof, the Register of the Treasury in pursuance of said Act of Congress hath hereunto set his hand, and affixed the Seal of the Treasury at Richmond, this second day of March 1863.

SEVEN PER CENT — SEVEN PER CENT

Entered [signature]

Recorded [signature]

[signature]
Act'g Register of the Treasury

C.S.Loan Feb. 20th 1863. The CONFEDERATE STATES of AMERICA THIRTY-FIVE DOLLARS for Six Months Interest due July 1st 1868 on Bond No 31335 for $1000.	C.S.Loan Feb. 20th 1863. The CONFEDERATE STATES of AMERICA THIRTY-FIVE DOLLARS for Six Months Interest due Jan 1st 1868 on Bond No 31335 for $1000.	C.S.Loan Feb. 20th 1863. The CONFEDERATE STATES of AMERICA THIRTY-FIVE DOLLARS for Six Months Interest due July 1st 1867 on Bond No 31335 for $1000.	C.S.Loan Feb. 20th 1863. The CONFEDERATE STATES of AMERICA THIRTY-FIVE DOLLARS for Six Months Interest due Jan 1st 1867 on Bond No 31335 for $1000.

How do you price a bond?

- Consider the *Bojos bond*
- What is the price of this bond (q) today?
  - Invest q today to receive \$100 a year from now
  - Is it worth it?

How do you price a bond?

- Consider the *Bojos bond*
- What is the price of this bond (q) today?
  - Invest q today to receive \$100 a year from now
  - Is it worth it?
- Depends on the alternative: deposit q in the bank today,
  - Obtain $q \cdot (1 + r)$ in a year
    - ★ Where r is the interest rate (no distinction between real and nominal)

$$\begin{aligned} \text{if } q \cdot (1 + r) &< 100, \text{ buy the bond!} \\ \text{if } q \cdot (1 + r) &> 100, \text{ don't buy the bond!} \end{aligned}$$

  - Only possible equilibrium price is

$$q \cdot (1 + r) = 100$$

How do you price a bond?

- Summarizing our previous discussion

$$q = \frac{100}{1+r}$$

  - q reflects the net present value of the bond's future payments
  - Future payments discounted at rate r, reflects opportunity cost of funds (i.e., the bank)
  - *Result 1:* the price of the bond is decreasing in the interest rate

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- Is this the end of the story?
  - What if there is a probability $\delta < 1$ that we default tomorrow?
  - Now we need to compare

$$q \cdot (1+r) \text{ vs. } 100 \cdot (1-\delta)$$

  - Hence equilibrium price is

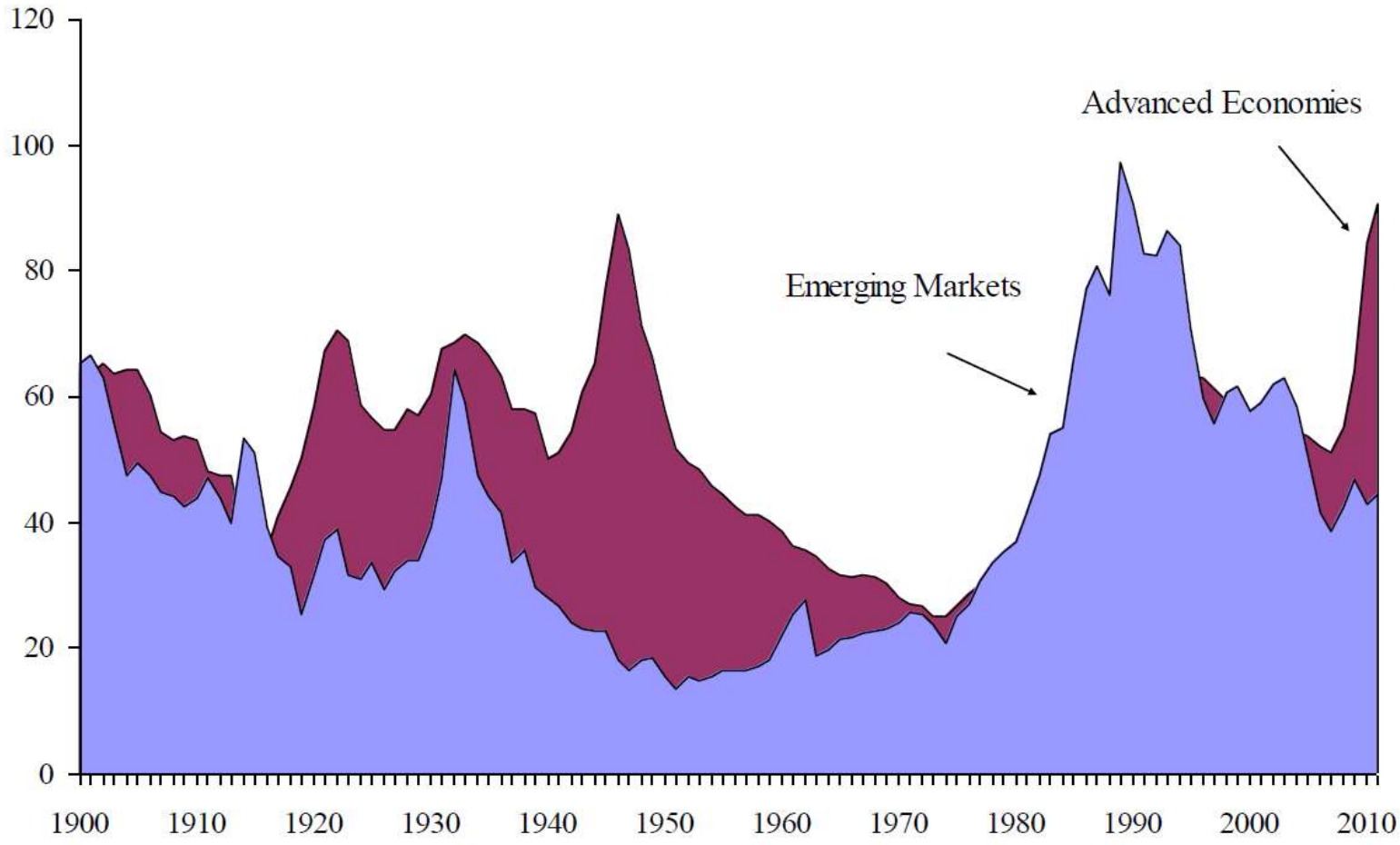
$$q = \frac{100 \cdot (1-\delta)}{1+r}$$

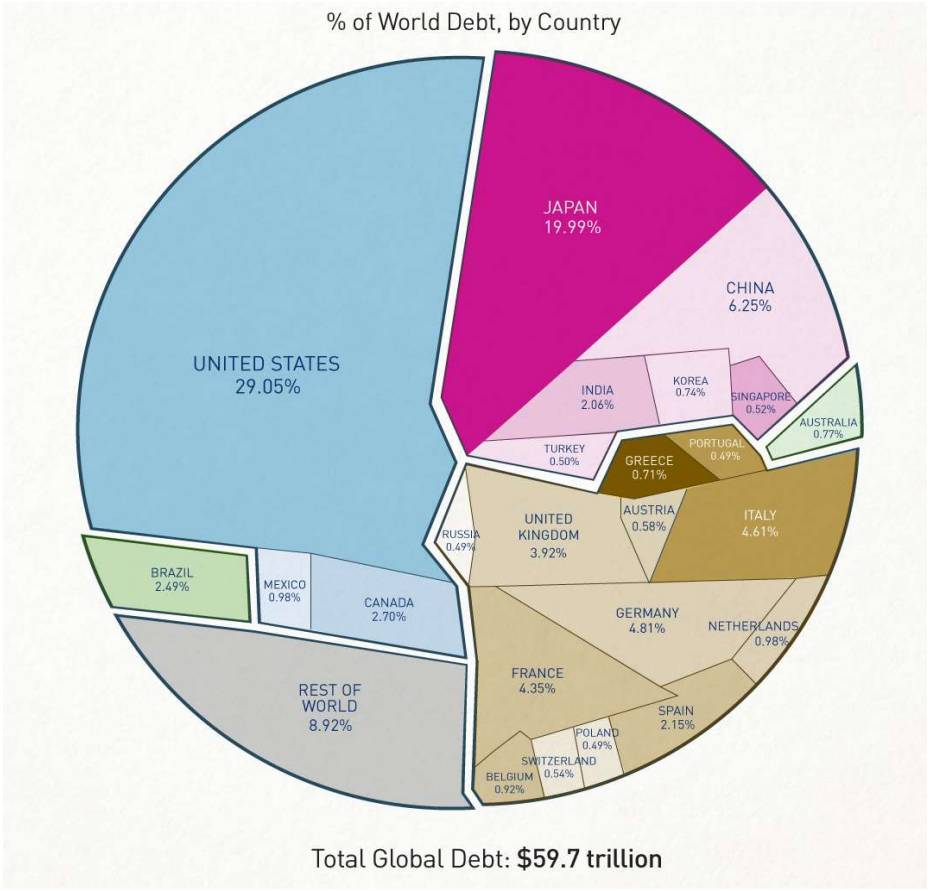
  - *Result 2:* the price of the bond is decreasing in the probability of default

Some facts

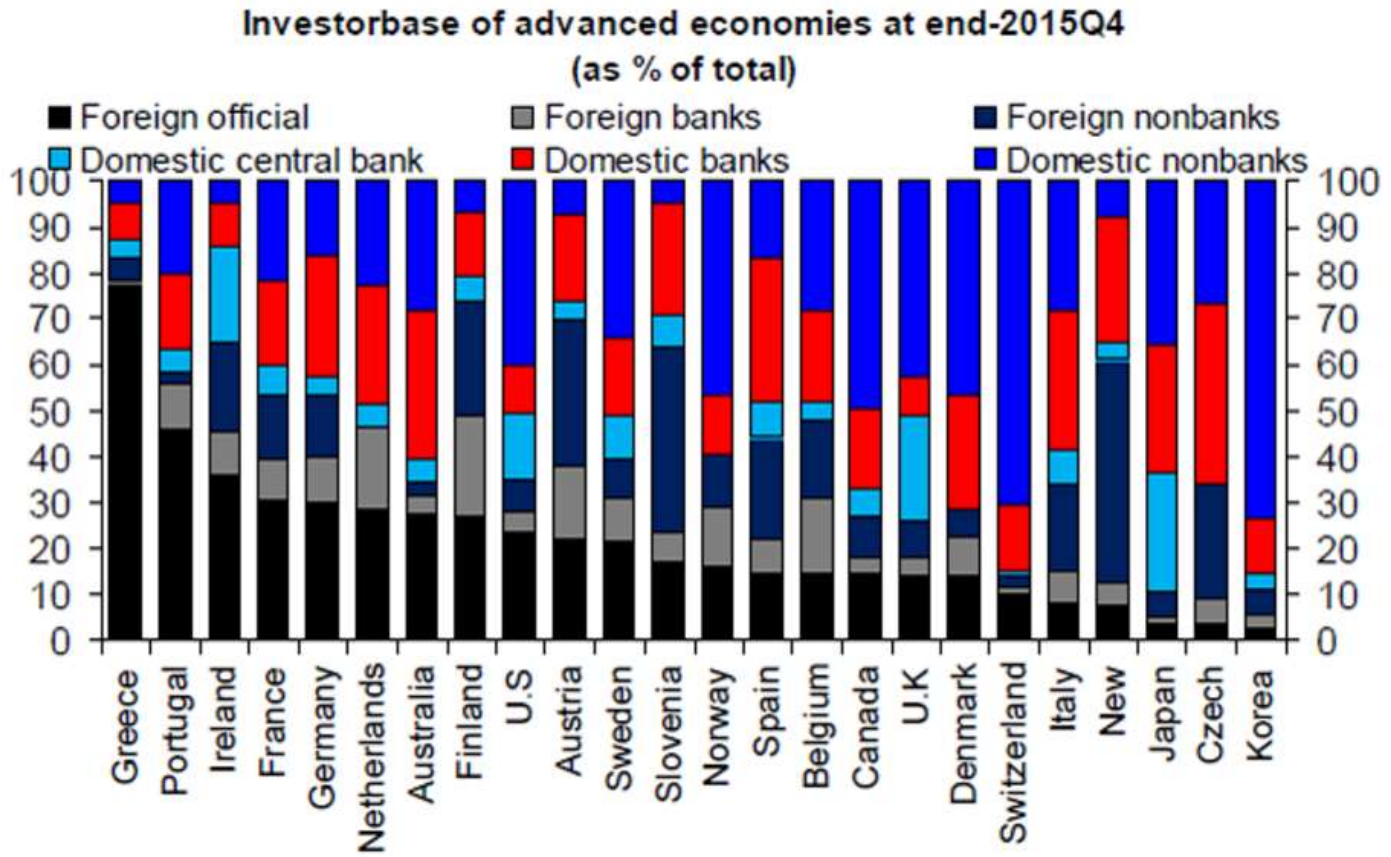
- Governments issue a lot of debt!
  - Stock of debt has increased substantially in recent past
- Today:
  - Total public debt: $\pm$ US$60 trillion!
  - Euro Area public debt: $\pm$ Euro 9.5 trillion! ($\pm$ 90% of GDP)
- A significant share of government debt is held by foreigners (especially in emerging markets)
- Government defaults are not unusual

FIGURE 1. Gross Central Government Debt as a Percent of GDP: Advanced and Emerging Market Economies, 1860-2011
(unweighted averages)



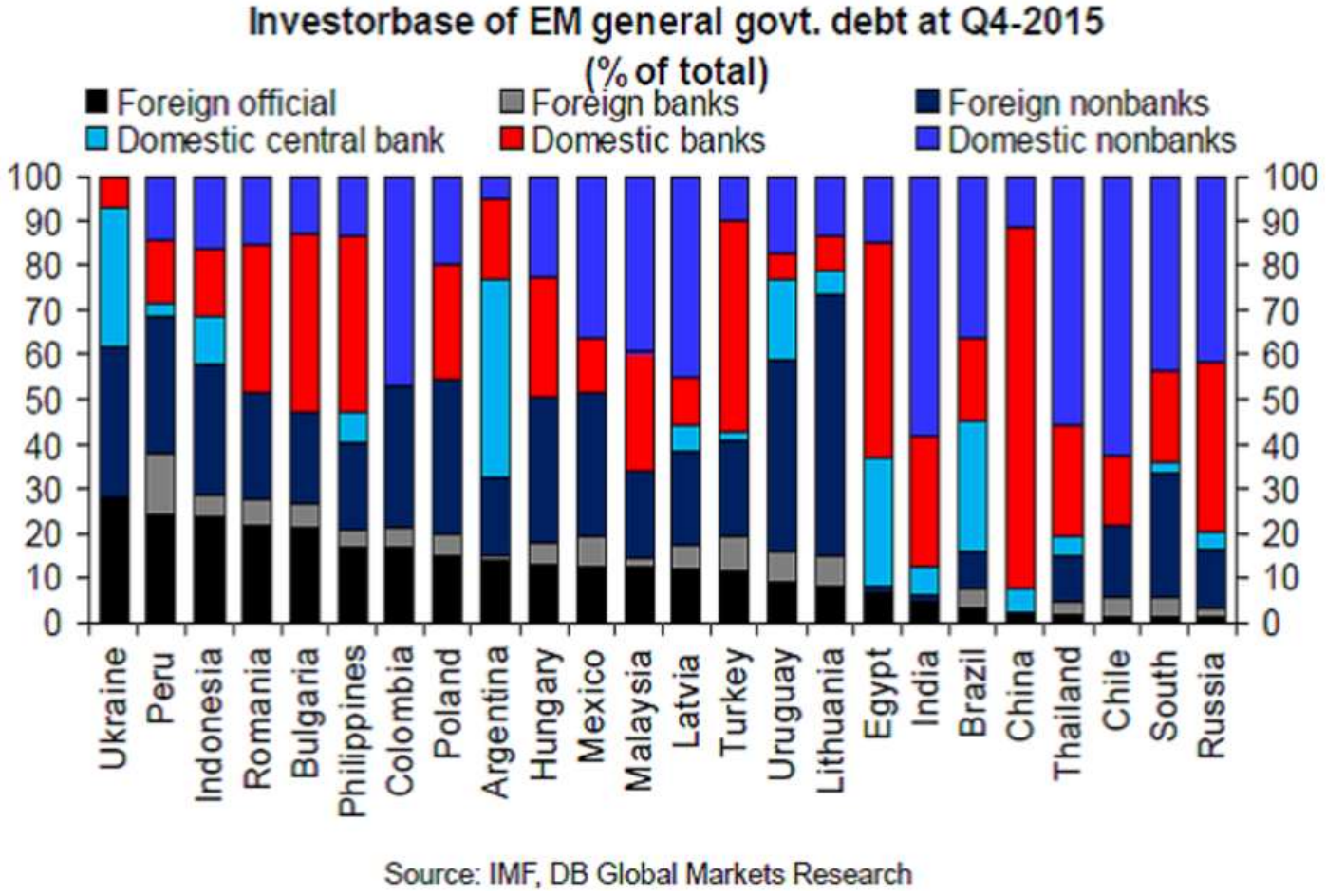

% of World Debt, by Country
JAPAN
19.99%
CHINA
6.25%
UNITED STATES
29.05%
INDIA
2.06%
KOREA
0.74%
SINGAPORE
0.52%
AUSTRALIA
0.77%
TURKEY
0.50%
PORTUGAL
0.49%
GREECE
0.71%
UNITED
KINGDOM
3.92%
AUSTRIA
0.58%
ITALY
4.61%
RUSSIA
0.49%
BRAZIL
2.49%
MEXICO
0.98%
CANADA
2.70%
GERMANY
4.81%
NETHERLANDS
0.98%
FRANCE
4.35%
SPAIN
2.15%
REST OF
WORLD
8.92%
POLAND
0.49%
SWITZERLAND
0.54%
BELGIUM
0.92%
Total Global Debt: $59.7 trillion

Who owns different countries' government bonds?



Source: IMF, DB Global Markets Research

EM: Who owns different countries' government bonds?



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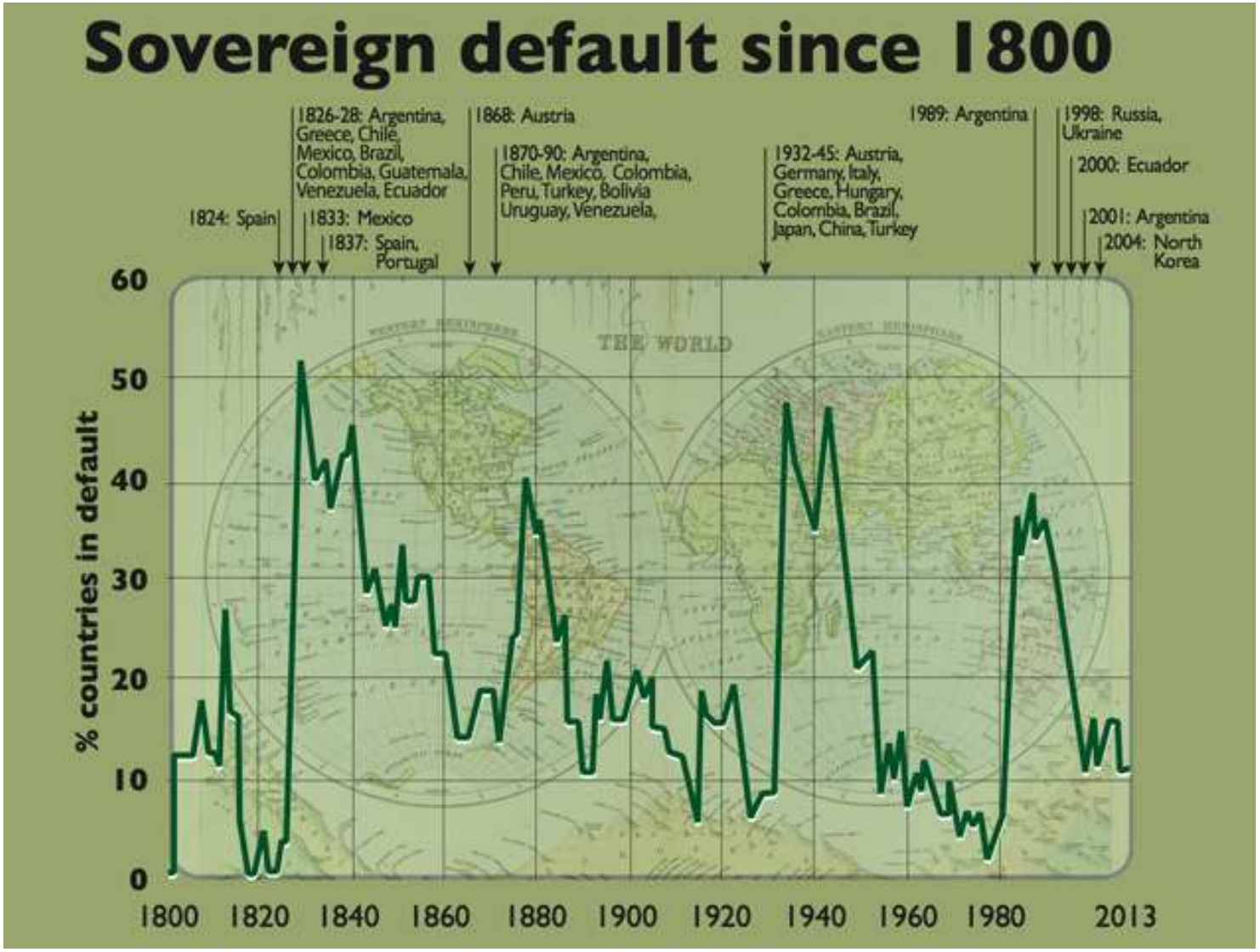

Sovereign default since 1800
1824: Spain
1826-28: Argentina, Greece, Chile, Mexico, Brazil, Colombia, Guatemala, Venezuela, Ecuador
1833: Mexico
1837: Spain, Portugal
1868: Austria
1870-90: Argentina, Chile, Mexico, Colombia, Peru, Turkey, Bolivia Uruguay, Venezuela,
1932-45: Austria, Germany, Italy, Greece, Hungary, Colombia, Brazil, Japan, China, Turkey
1989: Argentina
1998: Russia, Ukraine
2000: Ecuador
2001: Argentina
2004: North Korea
THE WORLD
% countries in default
60
50
40
30
20
10
0
1800
1820
1840
1860
1880
1900
1920
1940
1960
1980
2013

Why do countries repay their (foreign) debts?

- Repayment is costly
  - Transfer resources from domestics to foreigners
  - Why do it?

Why do countries repay their (foreign) debts?

- Repayment is costly
  - Transfer resources from domestics to foreigners
  - Why do it?
- Proposed explanations
  - Reputation: if a country defaults
    - ⋆ It may not be able to borrow in the future
    - ⋆ It may only be able to borrow at a higher rate
  - Sanctions
  - Information

A simple model (Broner, Martin, Ventura)

- One country: Home ($i \in I^H$), continuum of mass 1 of residents
- Two dates: Today ($t = 0$) and Tomorrow ($t = 1$)
- All agents in Home have the same preferences and income (representative agent)
  - Preferences:

$$U(c_{i0}, c_{i1}) = u(c) + u(c_{i1}),$$

    where c_{i0} is consumption in period t and $u' > 0, u'' < 0$
    - ★ Implication: desire to smooth consumption
  - Income:

$$(y_{i0}, y_{i1}) = (y - \varepsilon, y + \varepsilon)$$

    - ★ Implication: poor Today, rich Tomorrow

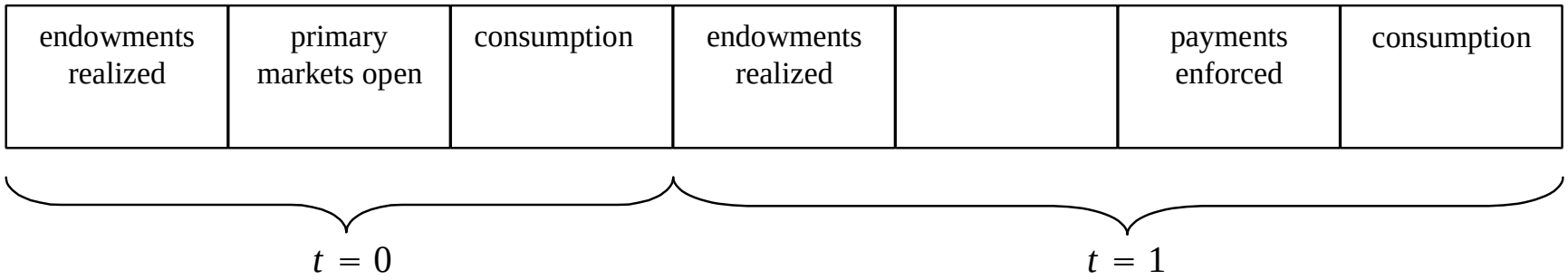
A simple model (Broner, Martin, Ventura)

- How do Home agents smooth consumption?
- They can borrow from international financial market (Foreign)
  - International interest rate: $r = 0$ $(1 + r = 1)$
- Suppose Home agent i issues b_i bonds Today, each promising to pay one unit Tomorrow
  - If price of bonds equals q, consumption given by,

$$(c_{i0}, c_{i1}) = (y - \varepsilon + q \cdot b_i, y + \varepsilon - (1 - \delta) \cdot b_i)$$

A simple model (Broner, Martin, Ventura)

- Timeline:



- Full enforcement: payments always enforced
- No commitment: government of home chooses Tomorrow which payments to maximize
  - Government maximizes total welfare of its residents

Full enforcement

- Remember our example: since $r = 0$ and there is no default, bond prices equal

$$q_0^* = 1$$

- Given preferences and bond prices, full consumption smoothing

$$c_{i0}^* = c_{i1}^* = y$$

- Bond holdings after primary markets: domestic agents issue bonds

$$b_{i0}^* = \varepsilon$$

Strategic enforcement

- Now, government of Home chooses Tomorrow whether to enforce payments or not
- Maximize welfare of Home residents
- Is the previous equilibrium still valid?
  - No! Government never enforces payments on bonds held by foreigners
    - ★ Enforcement just reduces consumption of Home residents
  - There is no reason to pay, $\delta = 1$
  - Everyone anticipates this, $q_0^* = 0$

So why do countries repay?

- Introduce penalties: if government does not enforce payments, suffers cost C
- Interpretation:
  - Reputation, sanctions, information....
- Is the previous equilibrium still valid?
  - Clearly, government only enforces payments on foreigners if $b^*_{i0} < C$
  - Price of bonds now given by

$$q^*_0 = \begin{cases} 1 & \text{if } b^*_{i0} \leq C \\ 0 & \text{if } b^*_{i0} > C \end{cases}$$

- The higher the penalties, the more the country is willing to repay
  - Hence, the more it is able to borrow in the first place!

TABLE 1. Real GDP Growth Rates during Sovereign Default Episodes, 1980–2010

Period	*Mean*	*Standard deviation*
$t-3$	3.06	4.89
$t-2$	1.97	4.59
$t-1$	1.10	6.25
t	−0.49	6.68
$t+1$	1.08	6.43
$t+2$	3.49	4.20
$t+3$	4.23	4.42
$t+4$	3.55	4.60
$t+5$	3.58	6.54
No. defaults	76	

Source: Author's calculations, based on data from Standard & Poor's and the International Monetary Fund, *World Economic Outlook*.

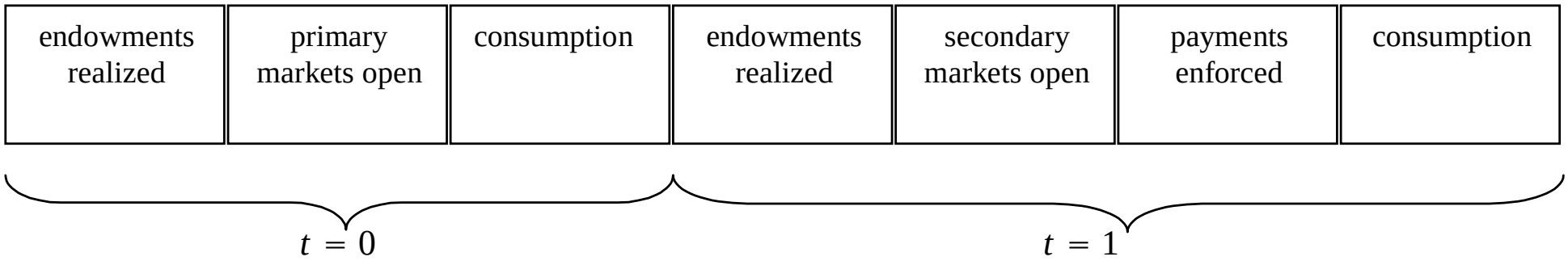
Costs of default

- **Reputation:** does not seem strong enough to sustain observed lending
  - Gelos, Sahay, Sandleris (2004) analyze bond issues and syndicated borrowing from non-domestic banks
    - ★ 150 developing countries, 1980-2000, 101 default episodes
    - ★ during default: no borrowing, but frequency of default does not affect market access
    - ★ average exclusion after default, 4.5 yrs. (2 yrs. during the 1990s)
  - Also evidence that a country's borrowing costs increase after default
- **Sanctions:** evidence weaker than one could expect
  - Few instances of "gunboat diplomacy" in XIX century
  - Some instances of sanctions, loosely defined, in recent times
- **Information:** scant evidence
- **Other costs:** adverse effect on international trade and on domestic financial markets
  - But why do these arise? More on this later

Back to our model....

- Everything as before with one difference:
  - Secondary markets open Tomorrow (before enforcement)
  - Agents can now re-trade bonds issued Today.
  - We now distinguish between:
    - ★ b_{i0}: (net) debt of agent i Today
    - ★ b_{i1}: (net) debt of agent i Tomorrow after trading

- Timeline:



The role of secondary markets

- Is the full enforcement allocation now possible? YES!
- As before, government of Home never enforces payments to foreigners
  - But suppose it enforces payments between residents of Home

The role of secondary markets

- Consider following equilibrium: as before,

$$q_0^{**} = 1$$

$$c_{i0}^{**} = c_{i1}^{**} = y$$

$$b_{i0}^{**} = \varepsilon$$

but Home residents repurchase bonds from Foreigners in secondary markets

$$q_1^{**} = 1 \text{ and } b_{i1}^{**} = \delta_i < \varepsilon$$

with $\int_{i \in I^j} \delta_i = 0$, i.e., there are no bonds left in the hands of foreigners.

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- This is an equilibrium because
  - All individuals get repaid, Home residents directly, Foreigners by selling in secondary market
  - The government of Home enforces domestic payments
    - ★ at the very least indifferent, here it prefers to do so (reduces inequality)

- The full-enforcement allocation is achieved

Intuition

- Secondary markets "align" asset holdings with the preferences of the enforcers
- This maximizes the price of assets and enforcement
- Secondary markets lead to an ex-post prisoner's dilemma type of situation
  - Collectively, it would be better to collude and not purchase domestic securities from foreign creditors
  - Individually, it is optimal to repurchase these assets whenever they trade at less than face value
- This ex-post inefficiency is beneficial from an ex-ante point of view

Multiple equilibria and welfare

- There is another (pessimistic) equilibrium without enforcement
  - Assume foreigners expect that if they buy bonds from homers there will be no enforcement
  - As a result, no asset trade takes place Today
- This is an equilibrium because, without trade Today, there is nothing to enforce Tomorrow
- It can be shown, however, that this equilibrium is not robust
  - Disappears with arbitrarily small costs of non-enforcement

How general is the argument?

- Previous mechanism holds if payments to domestic residents are enforced
- It holds even if domestic residents are different in
  - Income (rich vs. poor)
  - Influence (liked vs. disliked by the government)
- Can easily be extended to many countries, time periods, general preferences, uncertainty, etc...

Main result

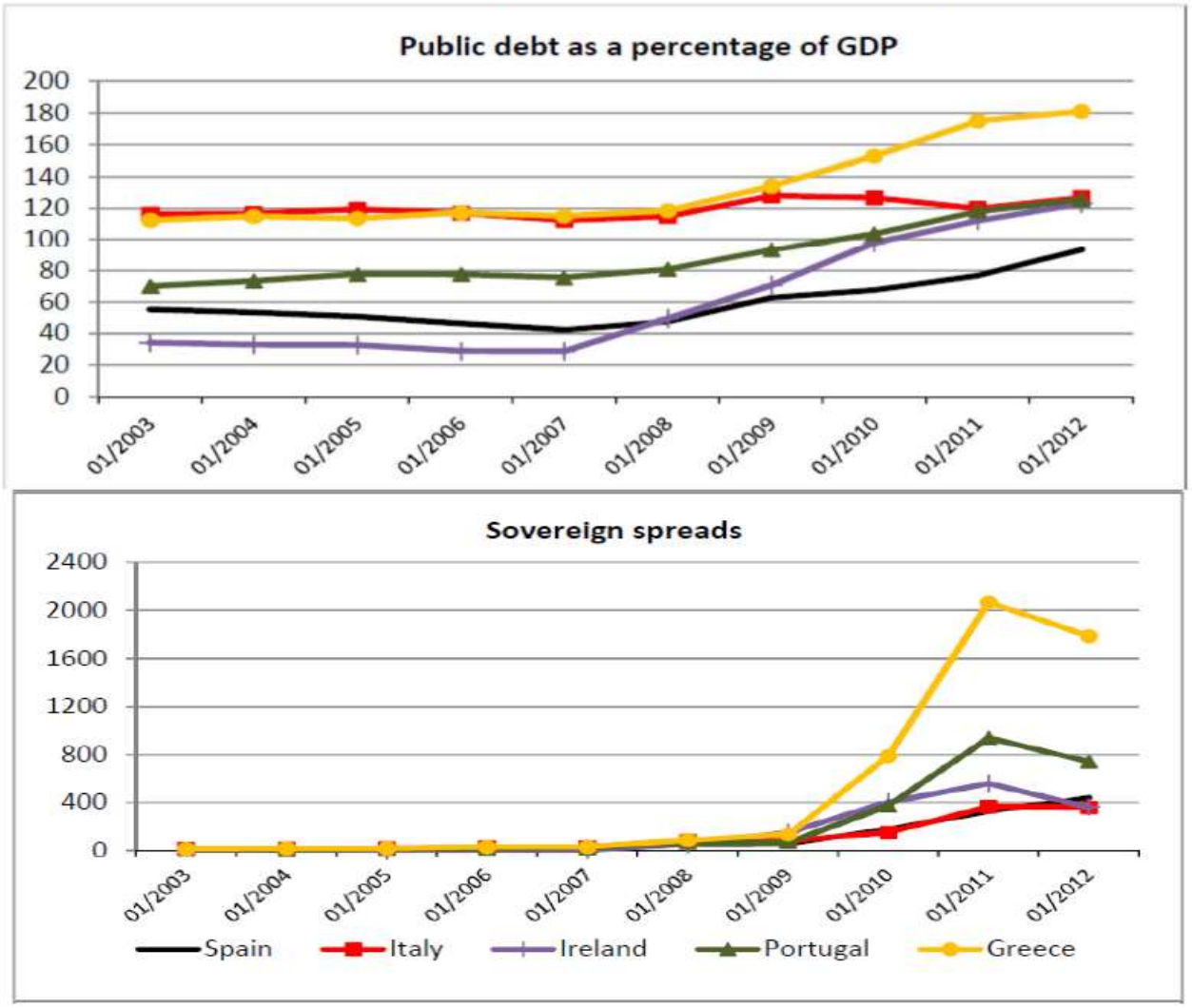
- As long as following assumptions verified:
  - PERFECT SECONDARY MARKETS: no restrictions on retrading of existing assets
  - SMALL AGENTS: individuals are "small" in the sense that they take prices and enforcement as given
  - NO COMMITMENT: at any point in time, agents can trade in assets before governments choose enforcement

Under strategic enforcement, there exists an equilibrium that attains the same consumption and welfare as the full enforcement equilibrium.

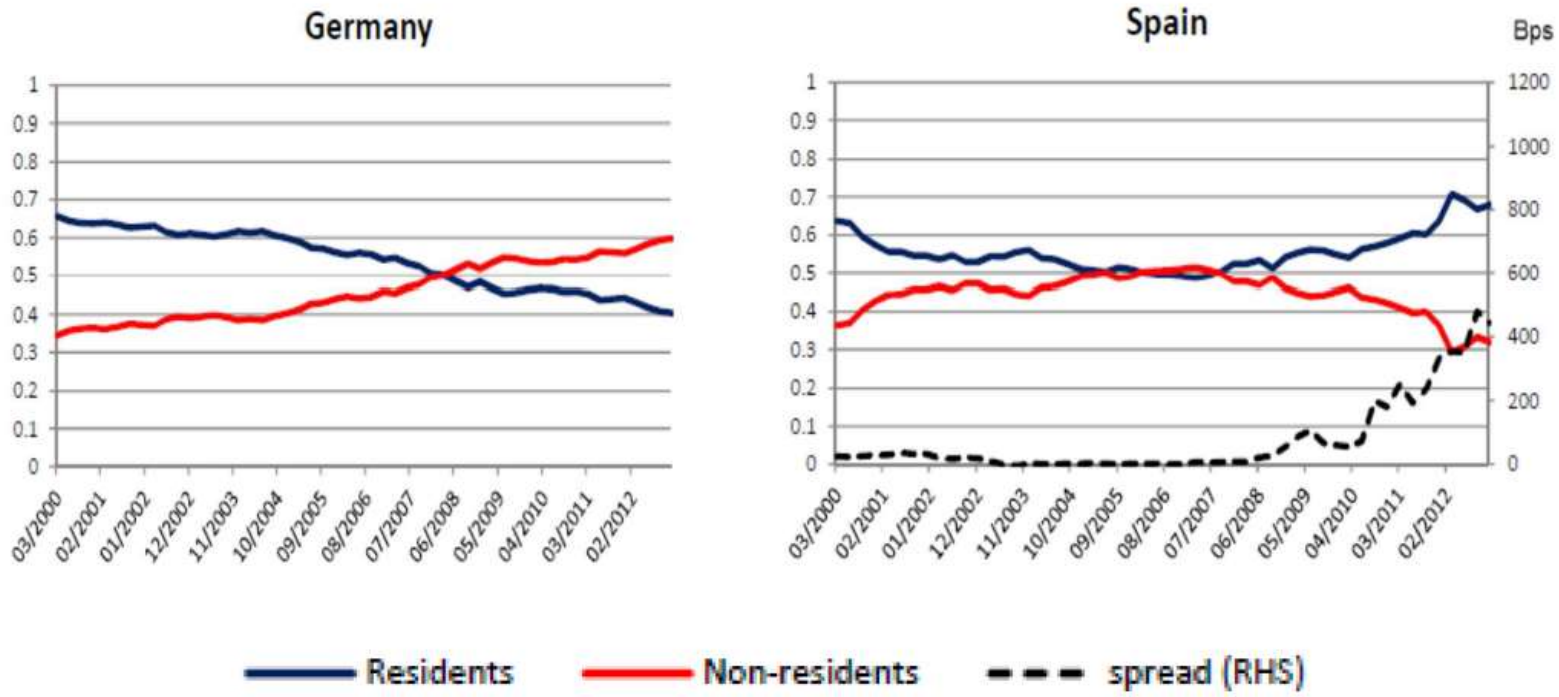
Implications

- Conventional wisdom
  - Sovereign risk is a problem when default penalties are insufficient
  - Policy implication: increase penalties
- This paper: conventional wisdom rests on one assumption, no secondary markets
  - With perfect secondary markets, strategic behavior of governments is circumvented
  - Policy implications: more emphasis on market-development
- In practice: theory complements conventional wisdom....
  - In "normal times", asset trade sustained by reputation (no use for secondary markets)
  - In "crisis times", sovereign risk rises and foreigners rush to sell their assets in the secondary market

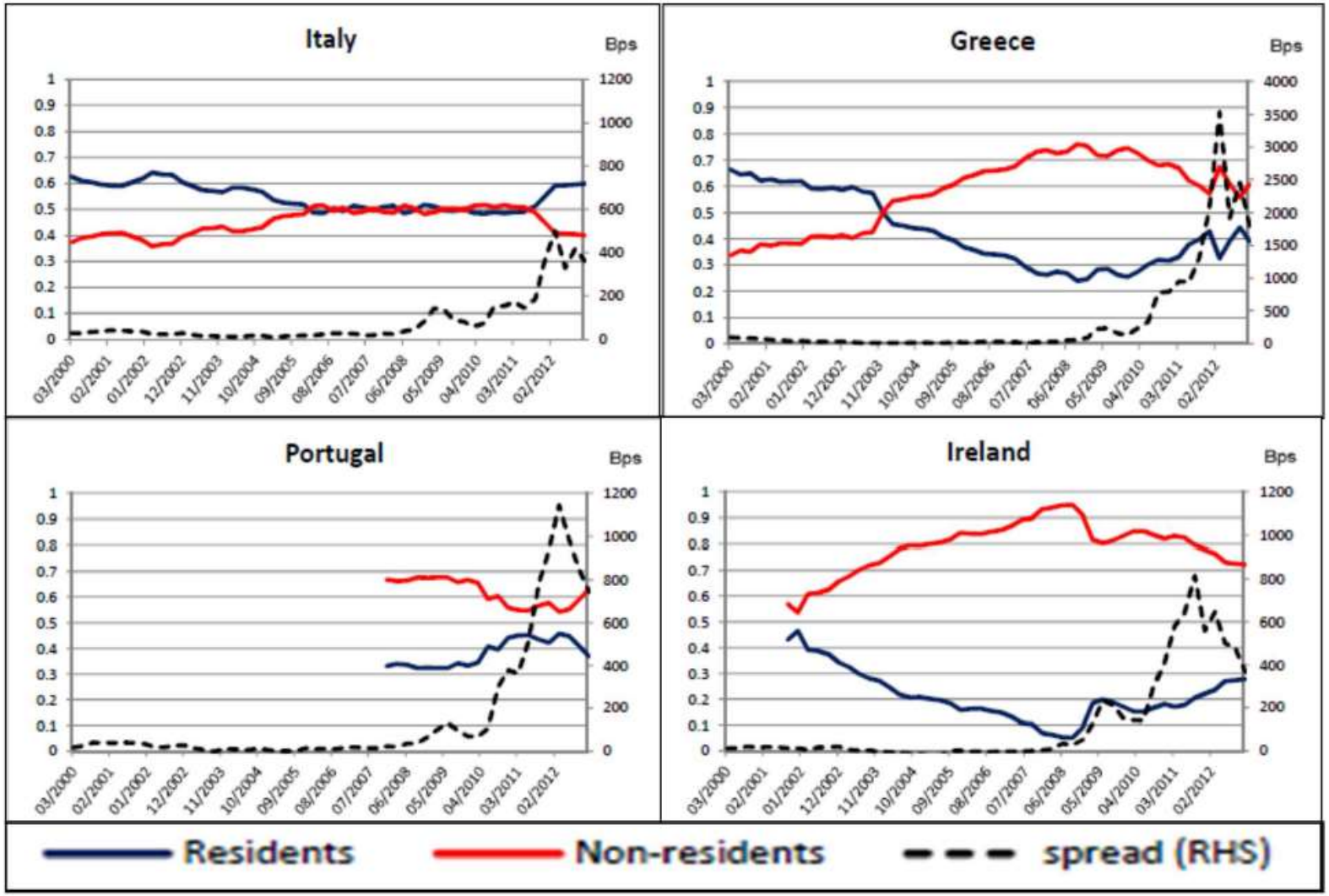
Public debt and spreads: A bird's eye view



Sovereign debt holders: Germany vs. Spain



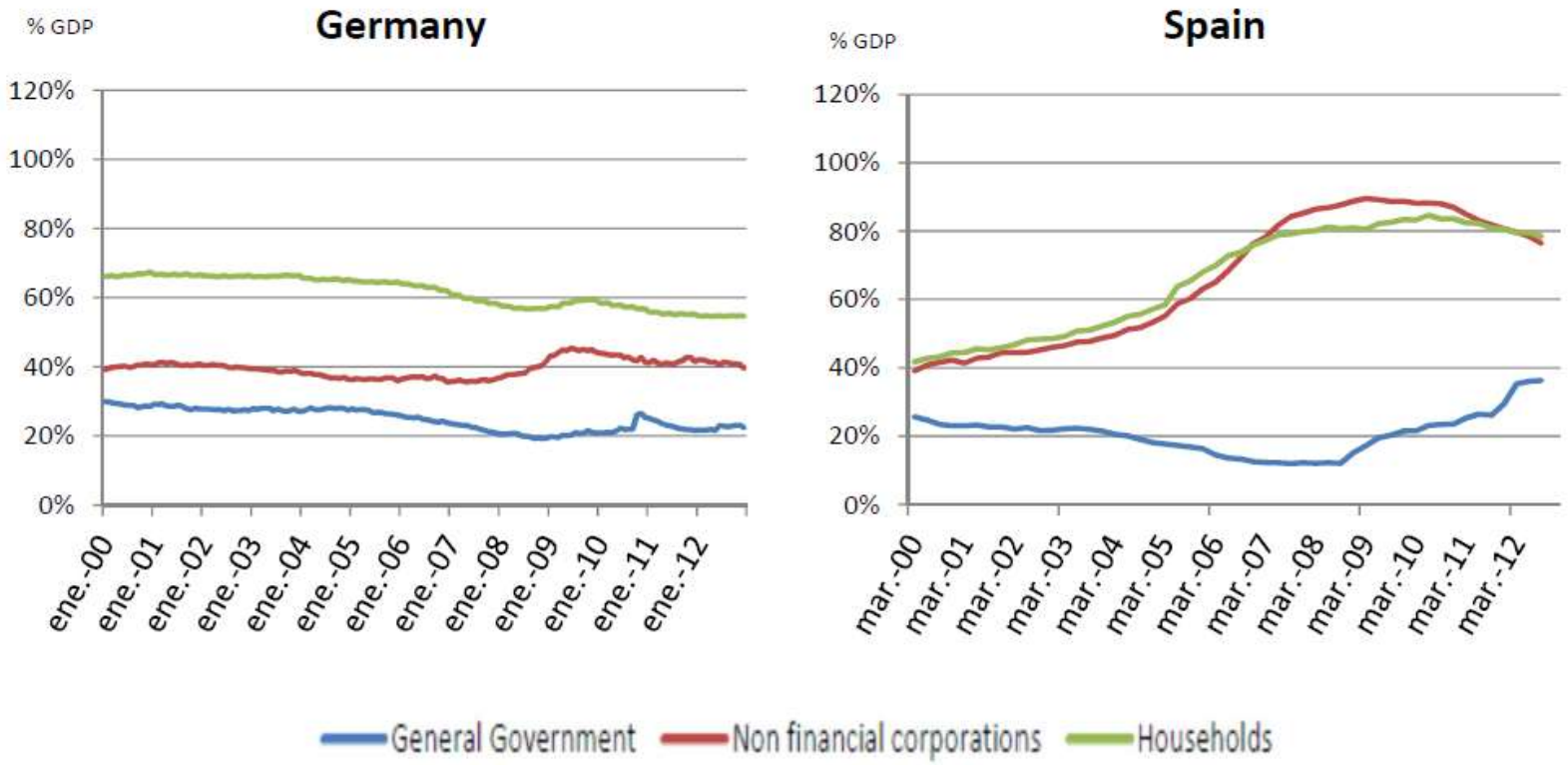
Sovereign debt holders in the periphery



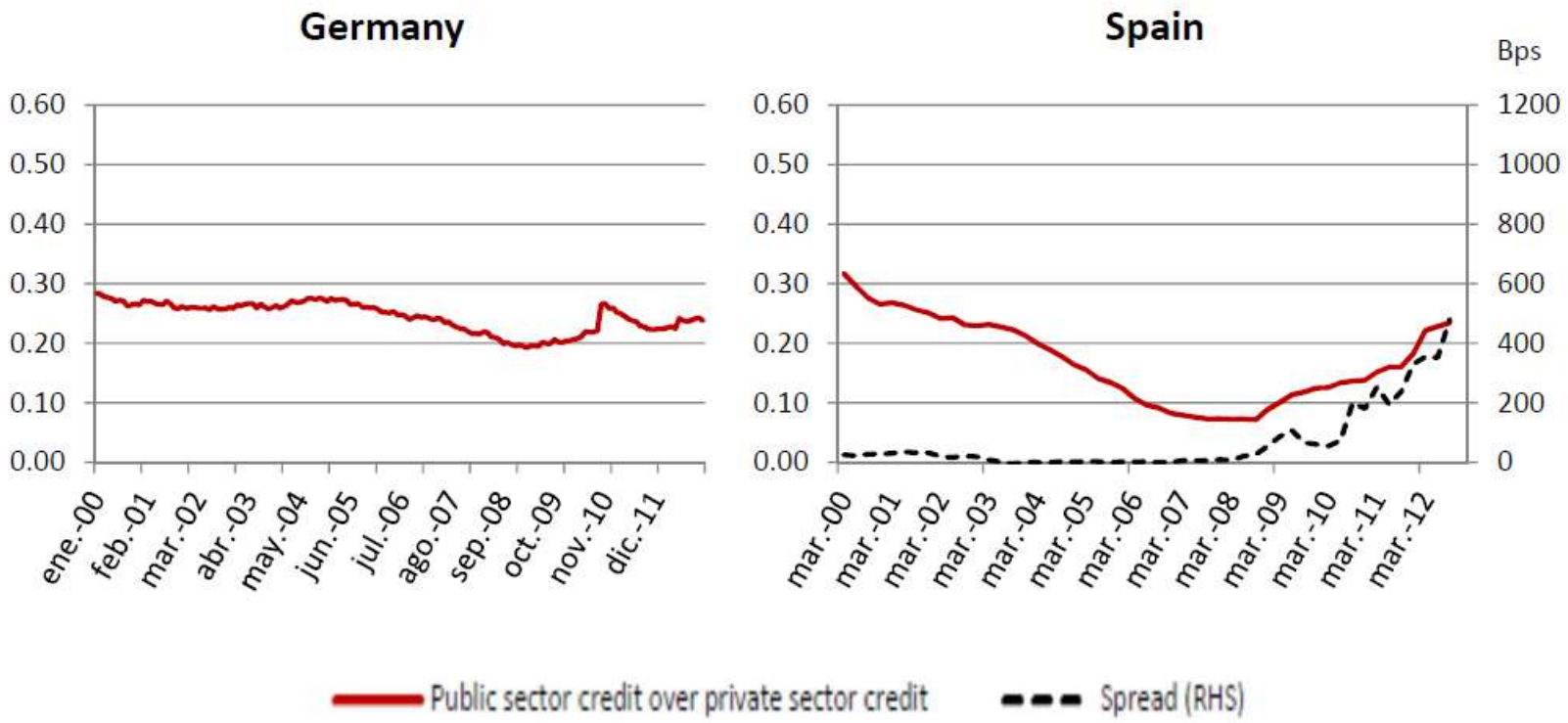
Interpreting the crisis

- As predicted, foreigners sold assets to domestics during crisis
  - What are the effects of this?
    - ⋆ In our model, reduce consumption Tomorrow
    - ⋆ But this enables country to borrow Today
- But the real world lasts for many periods
  - Consider our model with three periods:
    - ⋆ Today, Tomorrow, TDAT (The Day After Tomorrow)
  - In each period, agents borrow to consume or to invest
  - Today, they can issue long-term debt to be repaid TDAT
- Suppose there is a crisis Tomorrow
  - Residents of Home purchase domestic assets
  - How do they pay for these purchases?
  - Consumption, but also investment may go down!

Sectorial credit: Germany vs. Spain



Public credit, private credit & sovereign spreads



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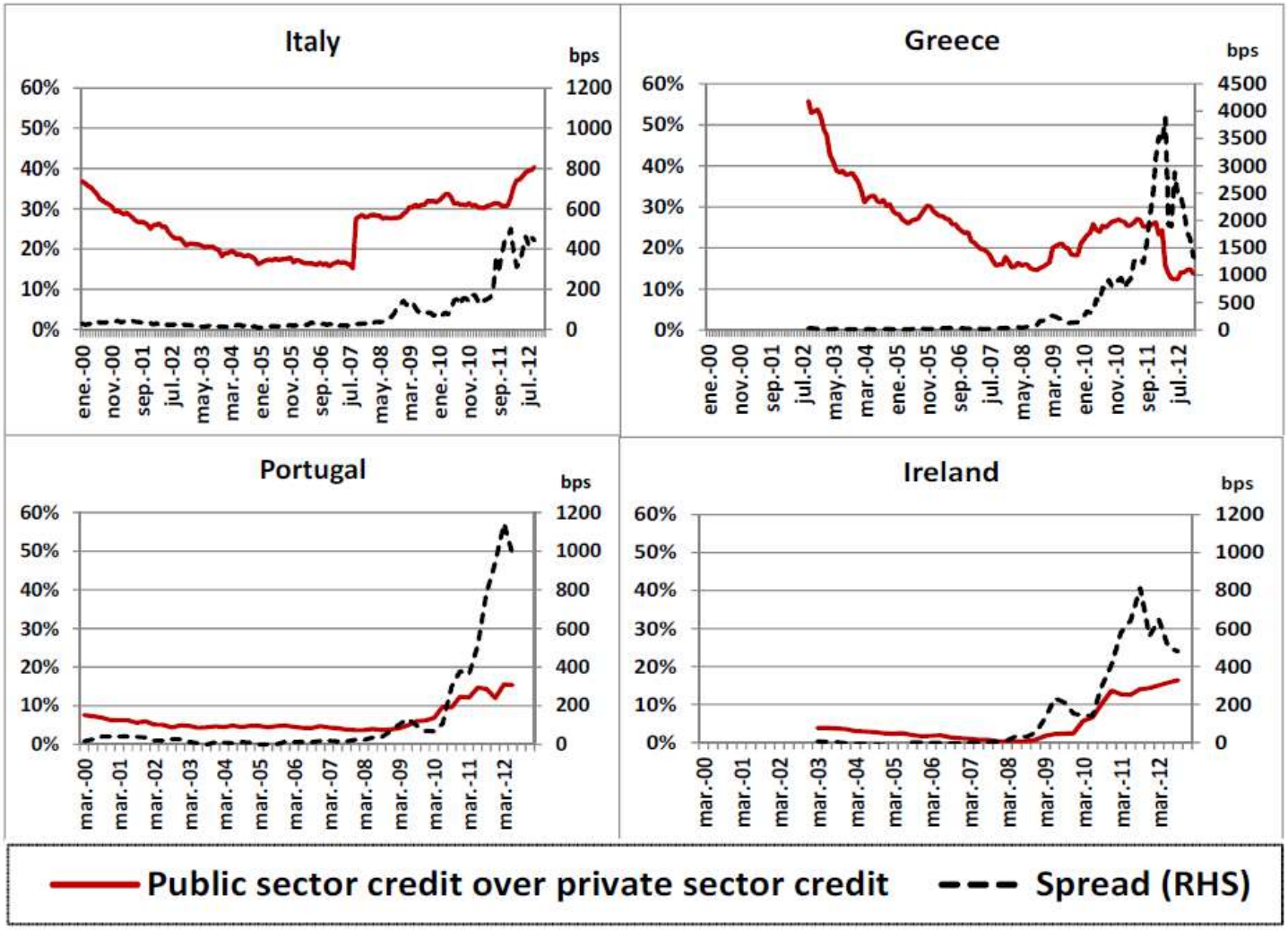
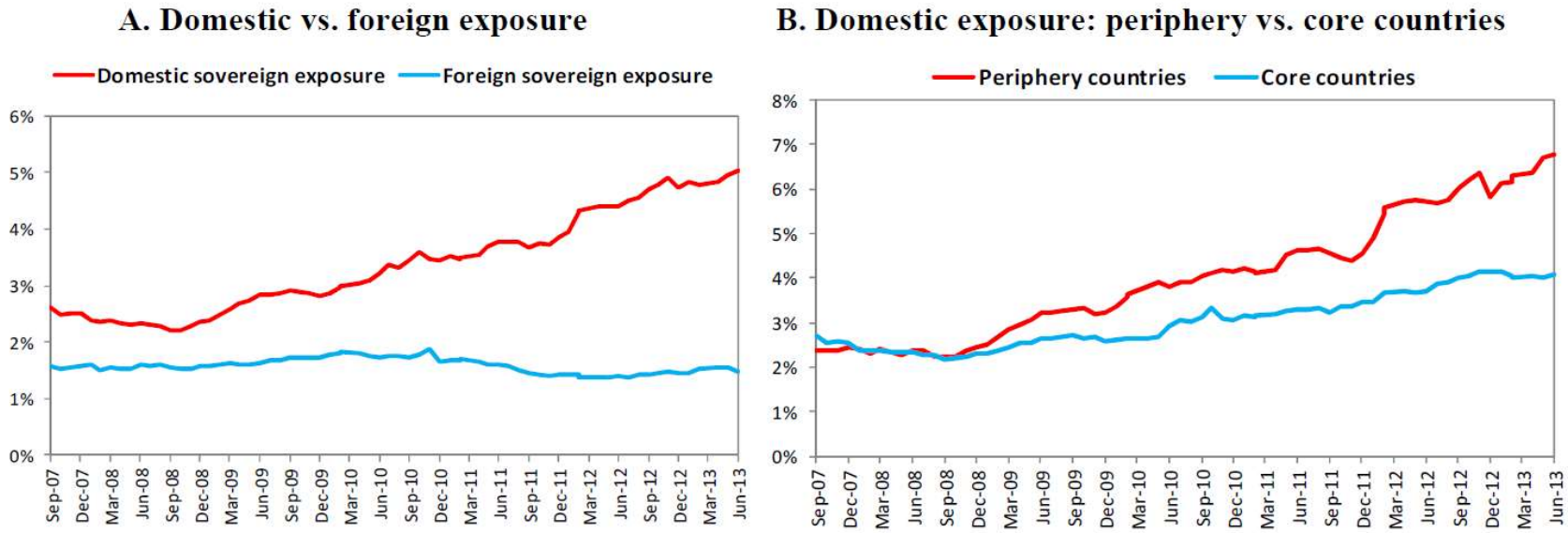


A theory-based narrative

- During the European crisis, domestic banks purchased substantial amounts of Home debt
- At this time, it was also hard for banks to borrow
- To fund these purchases of debt, they cut down on domestic lending
- This hurt domestic investment and, potentially growth

Figure 2. Sovereign exposures of Euro area banks, domestic vs. foreign bonds

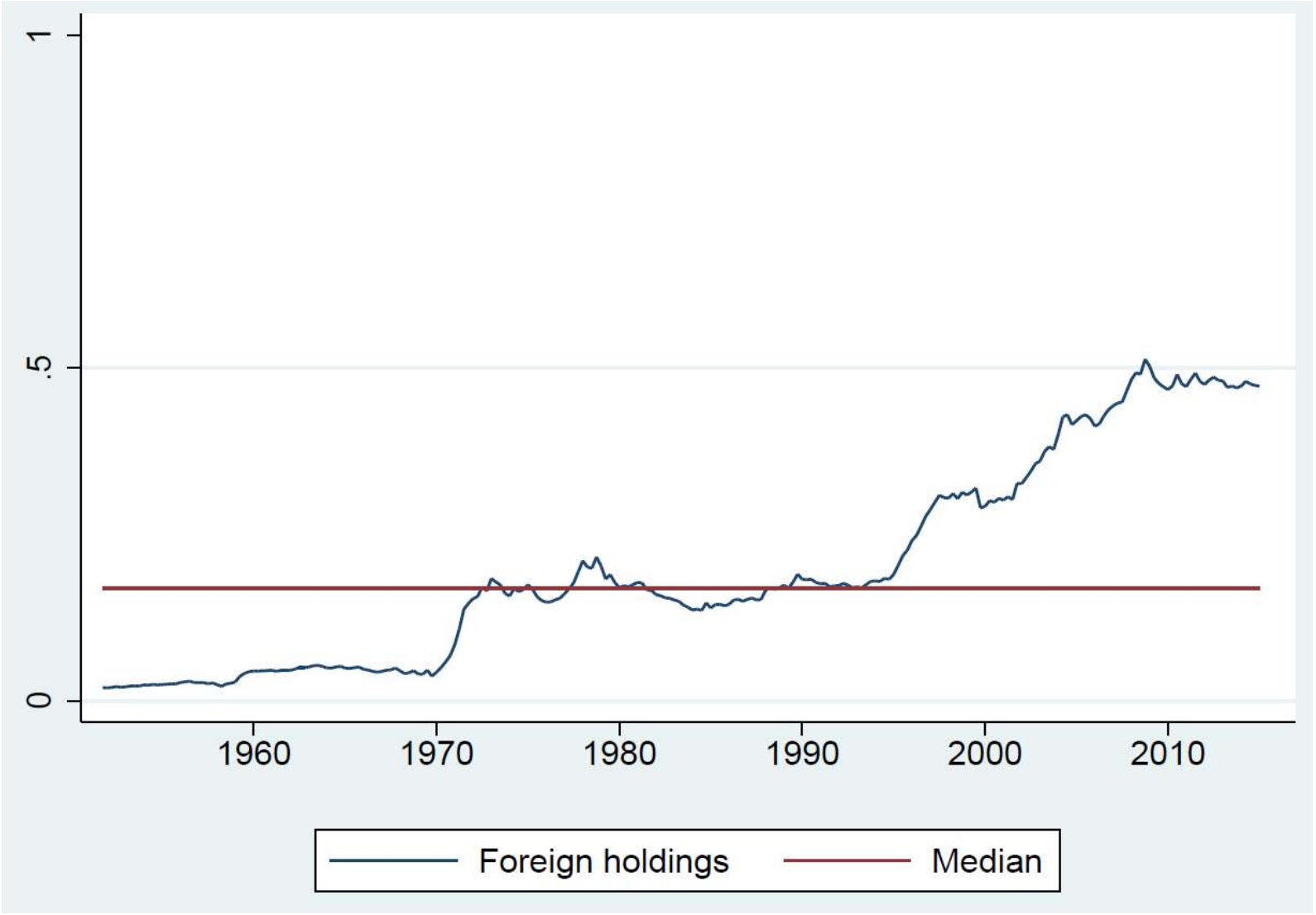


Notes: The sample comprises 247 banks from euro-area countries. Periphery countries include Greece, Italy, Ireland, Portugal, and Spain. Core countries include Austria, Belgium, Finland, France, Germany, Luxembourg, and The Netherlands. Sovereign exposures are expressed in percent of total bank assets. Sources: ECB Individual MFI Balance Sheet Statistics and Bankscope.

Research questions and implications

- Why did banks purchase so much sovereign debt?
  - Discrimination
  - Moral suasion (i.e., government pressure)
  - Risk shifting
- Can these purchases themselves fuel crises?
  - Suppose expectations of default lead to domestic purchases of debt
  - These purchases reduce domestic credit, investment, and thus output...
  - ...which in turn increases likelihood of default: expectations validated!
  - Can secondary markets be destabilizing?

United States: Share of Total Public Debt held by Foreigners



Additional research questions

- Interconnection between banks and governments
- Under certain conditions, secondary markets can make it hard for governments to discriminate
  - If governments attempt to default on one group of creditors, bonds change hands
  - Only option is to default on all creditors or not to default at all
- Banks hold a substantial amount of government bonds
  - If governments cannot discriminate, increases in sovereign risk will hurt banks and thus their ability to lend
  - Growing evidence that this is the case: substantial cost of default?
  - Should bank holdings of bonds be regulated? If so, how?

Table 1. Banking crises and sovereign distress

Type of twin crisis	Conditional probability
Sovereign debt crisis, conditional on banking crisis	51.0%
Banking crisis, conditional on sovereign debt crisis	22.3%

Notes: The table depicts the share of crisis-years identified as a banking crisis or sovereign debt crisis, conditional on a banking crisis or sovereign debt crisis occurring, respectively, during 2000-2014 for 66 countries. Banking crises are defined as in Laeven and Valencia (2013). Sovereign debt crises are identified using Laeven and Valencia (2013), Moody's Default & Recovery database, S&P's sovereign ratings, and years when a given sovereign's CDS spreads exceed the long-run mean.

Table 2. Bank holdings of government bonds by country income level

	Mean exposure			Median exposure		
	All	AEs	EMDEs	All	AEs	EMDEs
1999	8.1	6.4	17.7	4.8	4.2	15.7
2000	7.7	5.9	18.4	4.5	3.9	15.3
2001	8.2	6.2	19.6	4.8	4.3	18.5
2002	8.2	6.0	20.9	4.7	3.9	19.2
2003	8.5	6.6	20.0	5.3	4.7	18.1
2004	8.8	7.0	19.2	5.8	4.9	17.2
2005	9.0	7.5	18.0	6.3	5.4	17.3
2006	8.7	7.3	16.7	6.0	5.0	15.1
2007	8.1	6.8	15.7	5.3	4.5	14.8
2008	7.8	6.4	15.6	5.0	4.4	15.6
2009	8.9	7.4	17.5	6.1	5.3	16.7
2010	9.1	7.7	17.6	6.4	5.6	16.9
2011	9.3	8.1	16.6	6.7	5.9	18.1
2012	9.8	8.6	16.7	7.0	6.1	18.2
2013	10.0	8.8	17.0	7.4	6.7	17.9
2014	10.2	9.1	17.1	7.6	6.8	16.8
2005-14	**11.1**	**10.4**	**13.8**	**6.9**	**6.5**	**9.1**

Table 7. Banks' exposure to government debt and Stock / CDS market performance

	(1)	(2)	(3)	(4)	(5)
	Banks' stock market returns			Banks' CDS spreads	
Sovereign CDS*Domestic sovereign exposure	-1.664***	-1.782***	-1.690***	0.159***	0.115***
	(0.396)	(0.425)	(0.401)	(0.062)	(0.047)
Domestic sovereign exposure (% assets)	-0.009		0.003	0.443*	0.596***
	(0.038)		(0.040)	(0.266)	(0.183)
Sovereign CDS	-0.177***	-0.182***	-0.186***	0.041***	
	(0.035)	(0.037)	(0.035)	(0.005)	
Bank FE	Yes		Yes	Yes	Yes
Country FE	Yes	Yes		Yes	
Year				Yes	
Year-month FE	Yes				
Bank-year-month FE		Yes			
Country-year-month FE			Yes		Yes
Number of countries	12	12	12	5	5
Number of banks	33	33	33	29	29
Observations	1,468	1,468	1,468	1,849	1,849
R-squared	0.234	0.305	0.273	0.60	0.66

Table IV – Bondholdings, Sovereign Default, and Changes in Loans

The table presents coefficient estimates from pooled OLS regressions. Standard errors (in parentheses below the coefficient estimates) are adjusted for heteroskedasticity using the Huber (1967) and White (1980) correction, as well as for clustering at the bank level using the Huber (1967) correction. *** indicates significance at the 1% level; ** indicates significance at the 5% level; * indicates significance at the 10% level.

	(1)	(2)	(3)	(4)	(5)
Bank Bondholdings$_{i,c,t-1}$ *	-0.126**	-0.129**	-0.096*	-0.148**	-0.133***
Sovereign Default$_{c,t-1}$	(0.057)	(0.057)	(0.058)	(0.060)	(0.045)
Sovereign Bond Return$_{c,t-1}$ *	0.072***	0.068***	0.071***		
Sovereign Default$_{c,t-1}$	(0.014)	(0.015)	(0.015)		
Bank Bondholdings$_{i,c,t-1}$	0.032***	0.034***	0.009	0.009	0.018**
	(0.009)	(0.009)	(0.011)	(0.011)	(0.008)
Sovereign Default$_{c,t-1}$	-0.038	-0.035	-0.019		
	(0.026)	(0.025)	(0.024)		
Sovereign Bond Return$_{c,t-1}$	0.005	0.011*	0.004		
	(0.005)	(0.006)	(0.007)		
Leverage$_{i,c,t-1}$ *	0.115**	0.107**	0.084	0.035	0.028
Sovereign Default$_{c,t-1}$	(0.054)	(0.054)	(0.053)	(0.057)	(0.048)
Loans$_{i,c,t-1}$ *	-0.180***	-0.189***	-0.169***	-0.202***	-0.189***
Sovereign Default$_{c,t-1}$	(0.050)	(0.050)	(0.049)	(0.054)	(0.041)
Bank Size$_{i,c,t-1}$	0.001***	0.001***	0.001***	0.001***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Non-cash assets$_{i,c,t-1}$	-0.029*	-0.032*	0.025	0.011	-0.021
	(0.017)	(0.017)	(0.020)	(0.020)	(0.016)
Loans$_{i,c,t-1}$	-0.043***	-0.041***	-0.061***	-0.054***	-0.049***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.004)
Profitability$_{i,c,t-1}$	-0.083	-0.089	-0.078	-0.094*	-0.087**
	(0.060)	(0.060)	(0.056)	(0.053)	(0.042)
Exposure to Central Bank$_{i,c,t-1}$	-0.006	-0.005	0.072***	0.048**	0.047***
	(0.019)	(0.019)	(0.024)	(0.023)	(0.016)
Interbank Balances$_{i,c,t-1}$	0.016**	0.019***	0.004	0.010	0.004
	(0.007)	(0.007)	(0.007)	(0.007)	(0.005)
	(0.004)	(0.004)	(0.004)	(0.004)	(0.003)
Year Dummies?		Yes	Yes	Yes	Yes
Country Dummies?			Yes	Yes	Yes
Country x Year Dummies?				Yes	Yes
Constant	0.041**	0.033*	-0.026	0.184	-0.078
	(0.018)	(0.018)	(0.021)	(102.387)	(177.873)
No Observations	14,074	14,074	14,074	14,074	27,408
No Banks	3,722	3,722	3,722	3,722	5,218
No Countries	60	60	60	60	158
R-squared	0.061	0.072	0.106	0.204	0.224