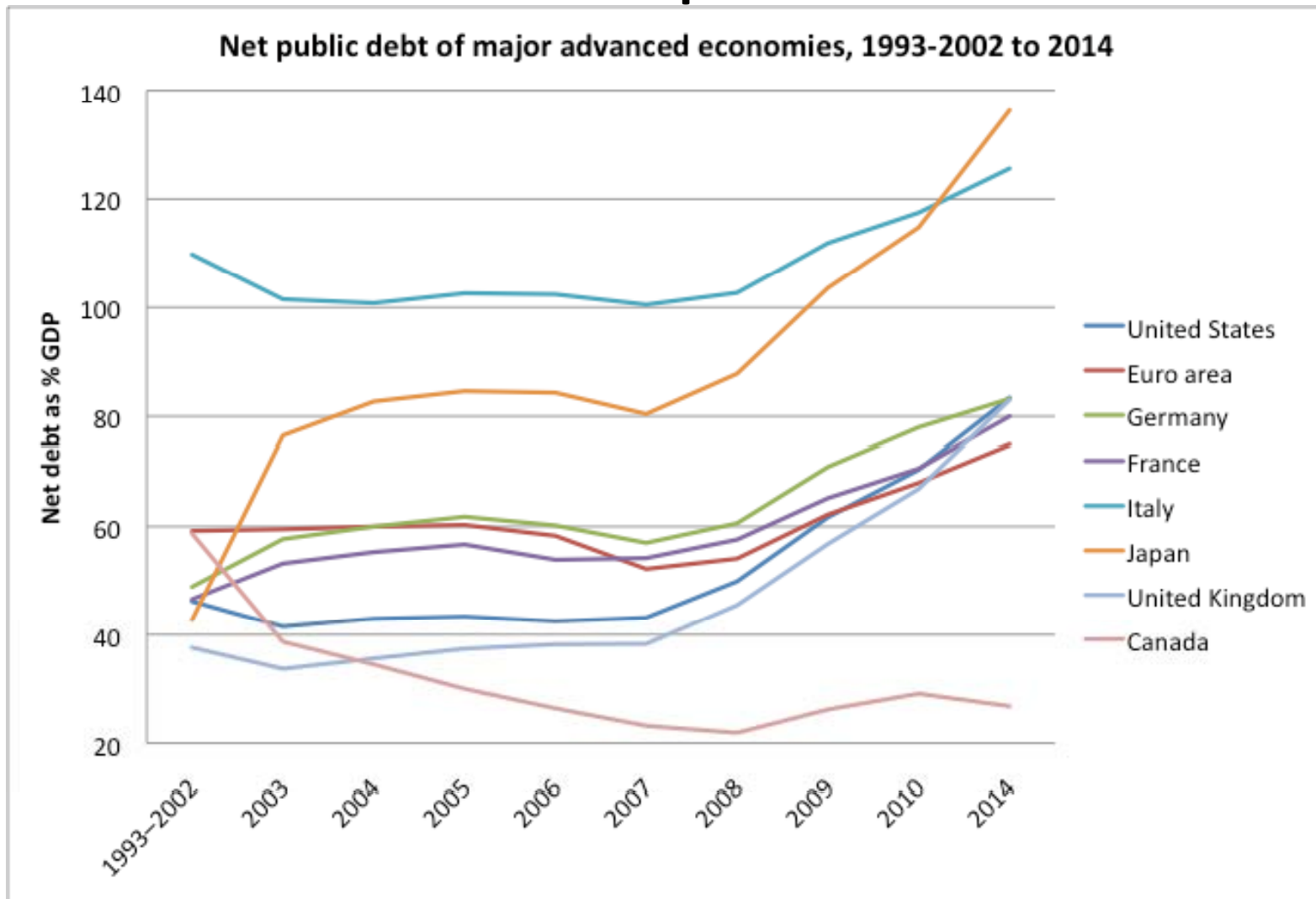


# **Fiscal Crises and Imperial Collapses: Historical Perspectives on Current Predicaments**



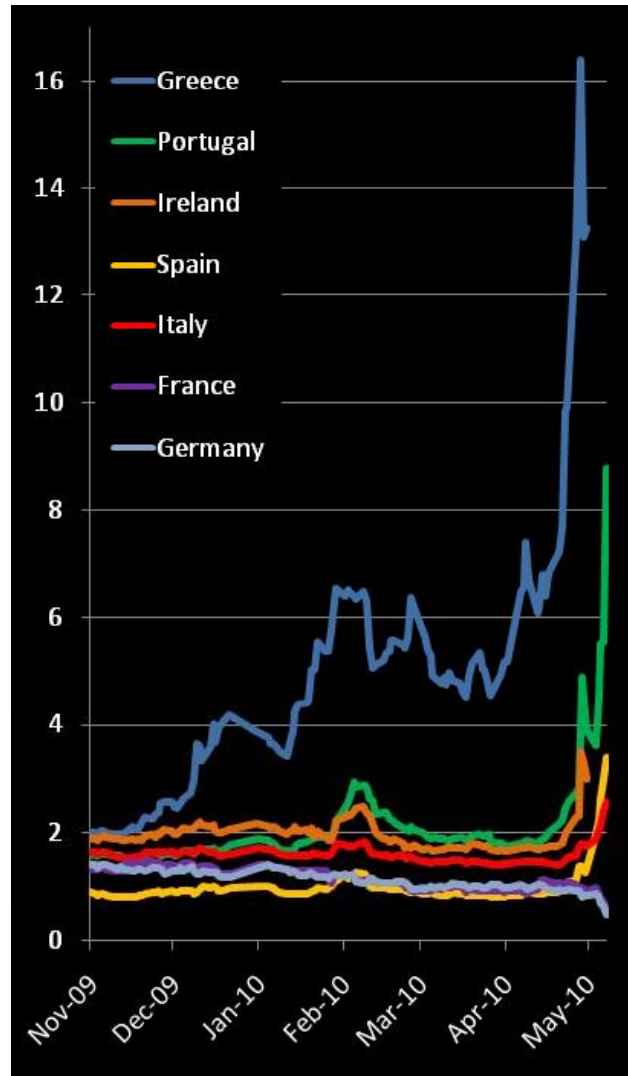
Niall Ferguson, Harvard University  
Niarchos Lecture  
Peterson Institute for International Economics, Washington DC  
May 13, 2010

# We are witnessing a debt explosion in the developed world

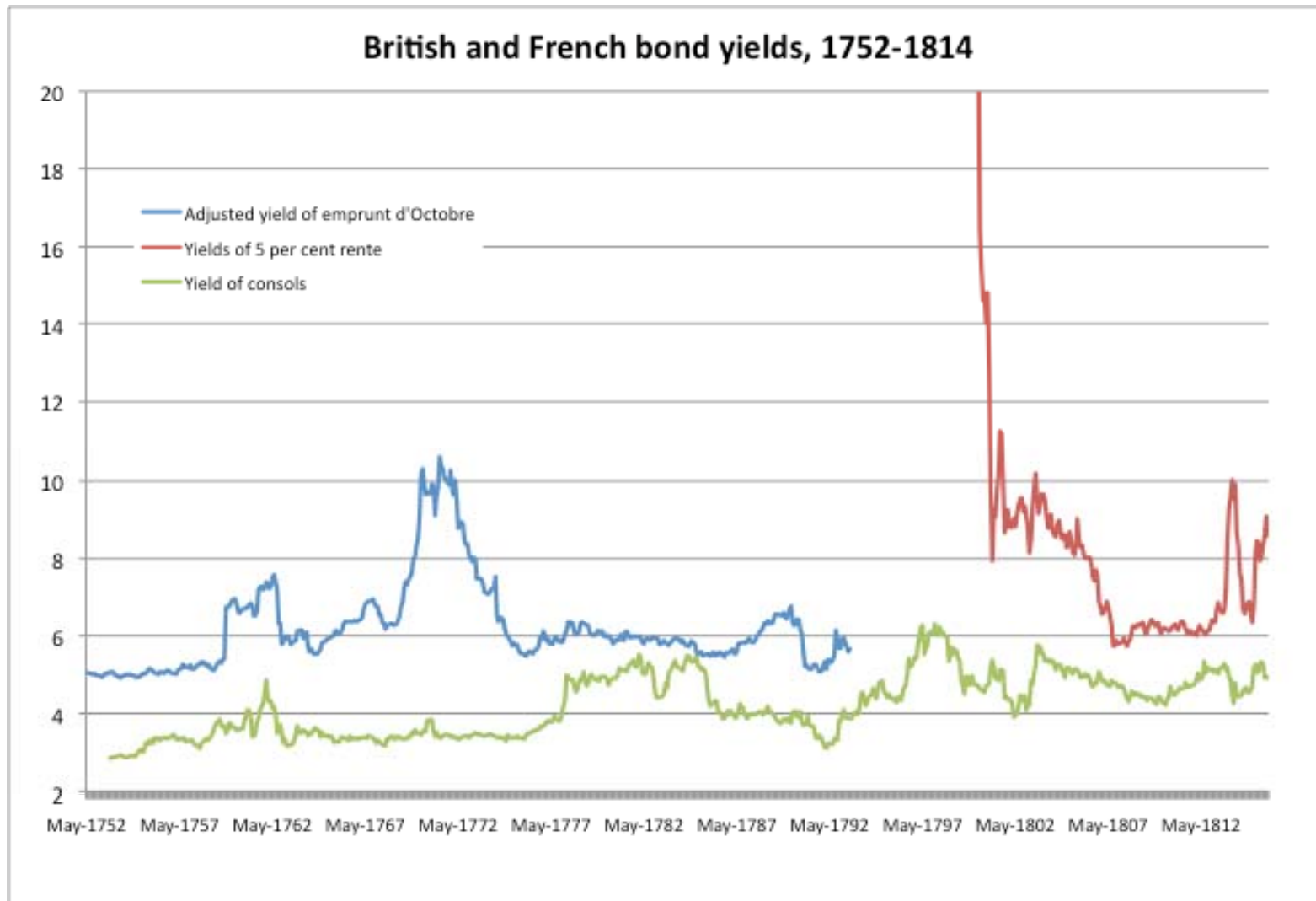


Source: IMF

# With the power to scare governments into emergency action

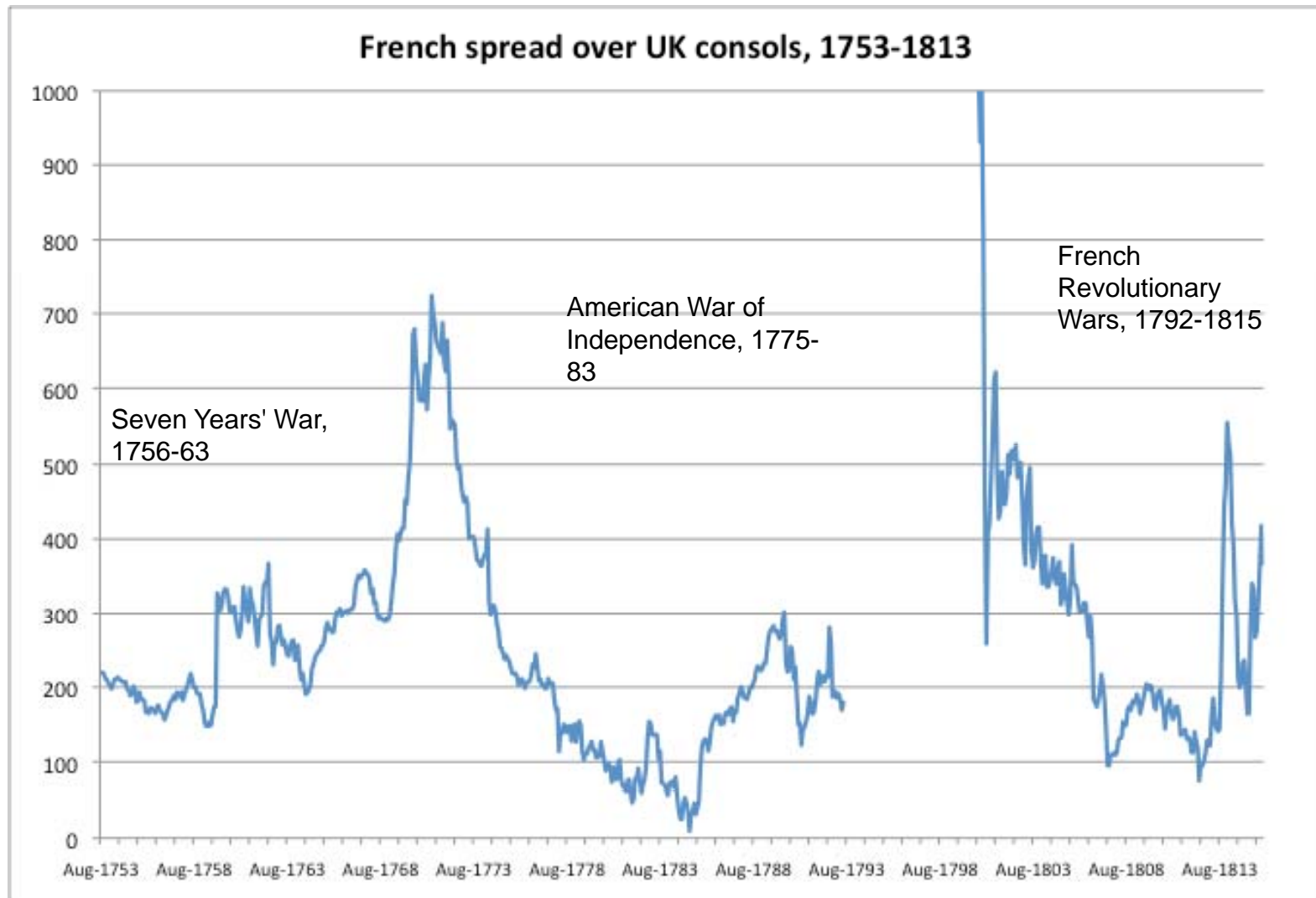


# Such crises are nothing new—they're as old as the bond market



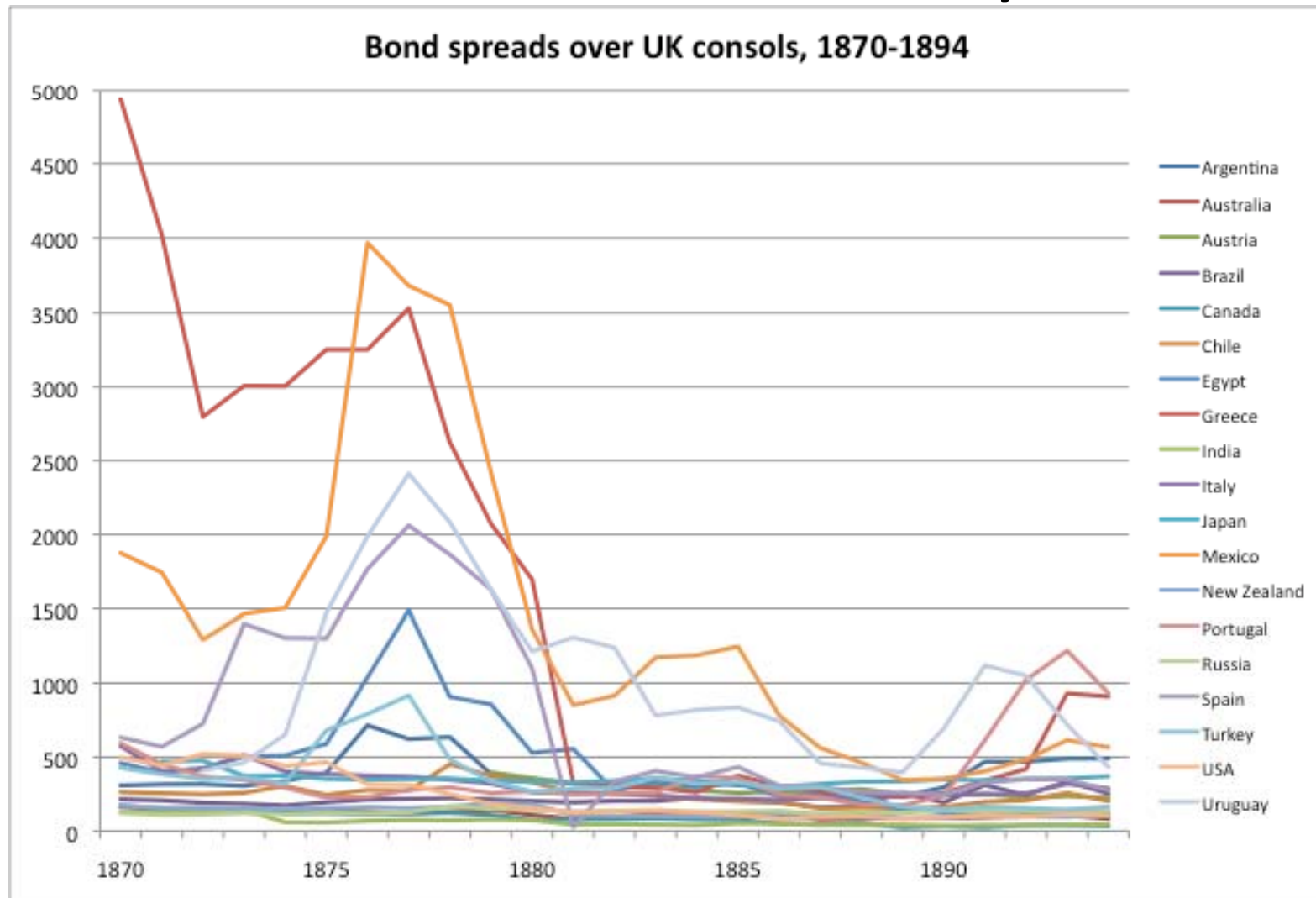
Source: Larry Neal

# War and revolution are the traditional causes of crisis



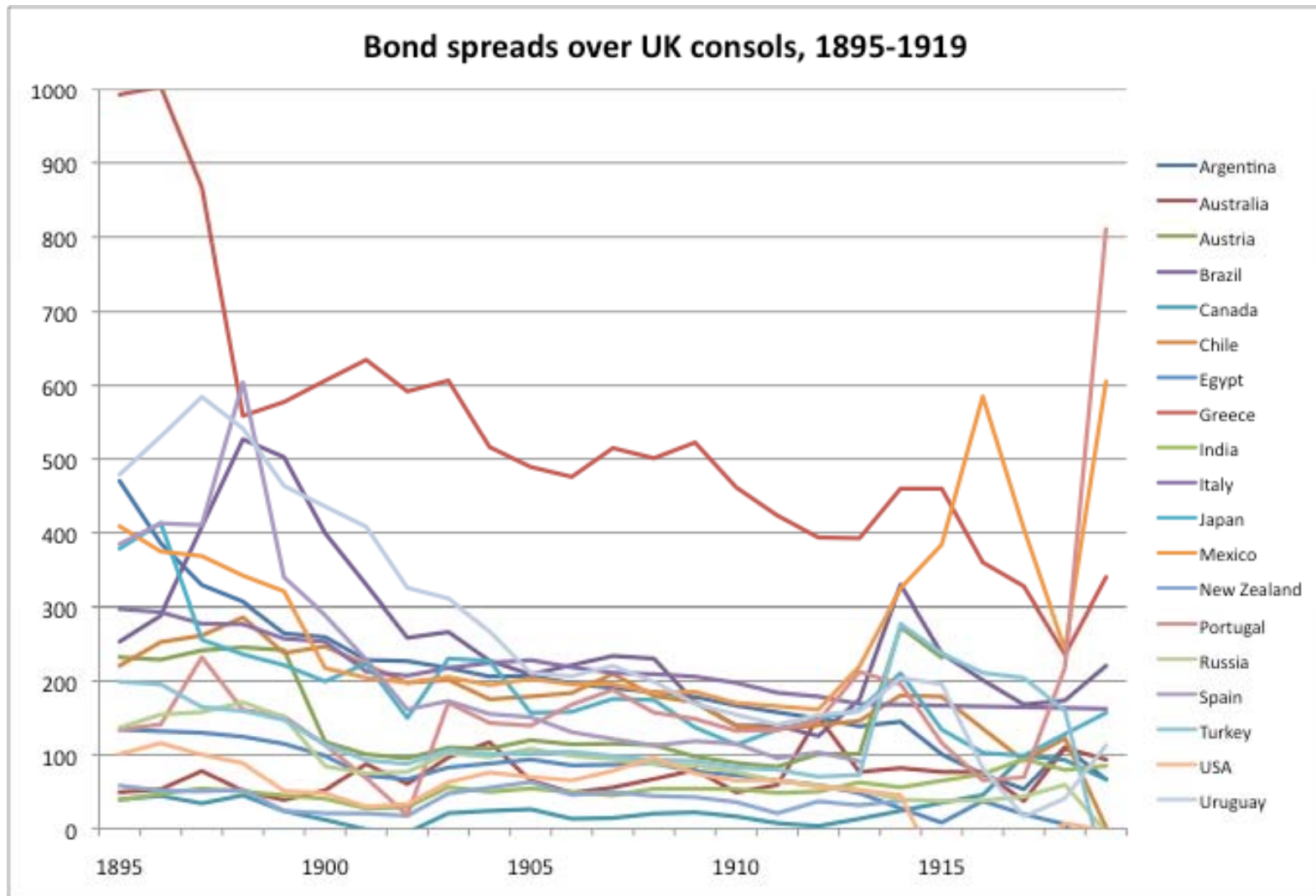
Source: Larry Neal

# A pattern consistently to be found for more than a century



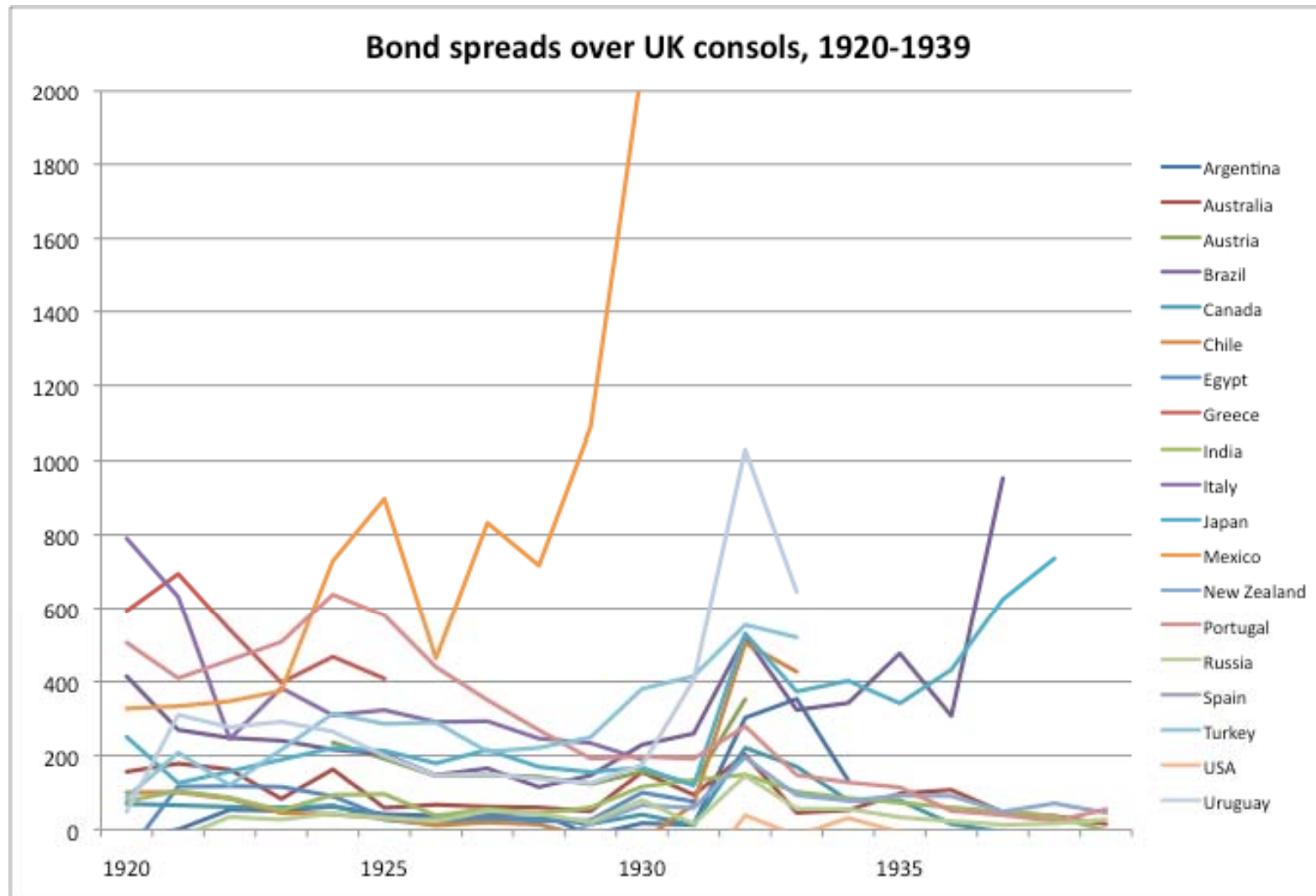
Source: Alan Taylor

Unlike lightning, they tend to strike the same places twice



Source: Alan Taylor

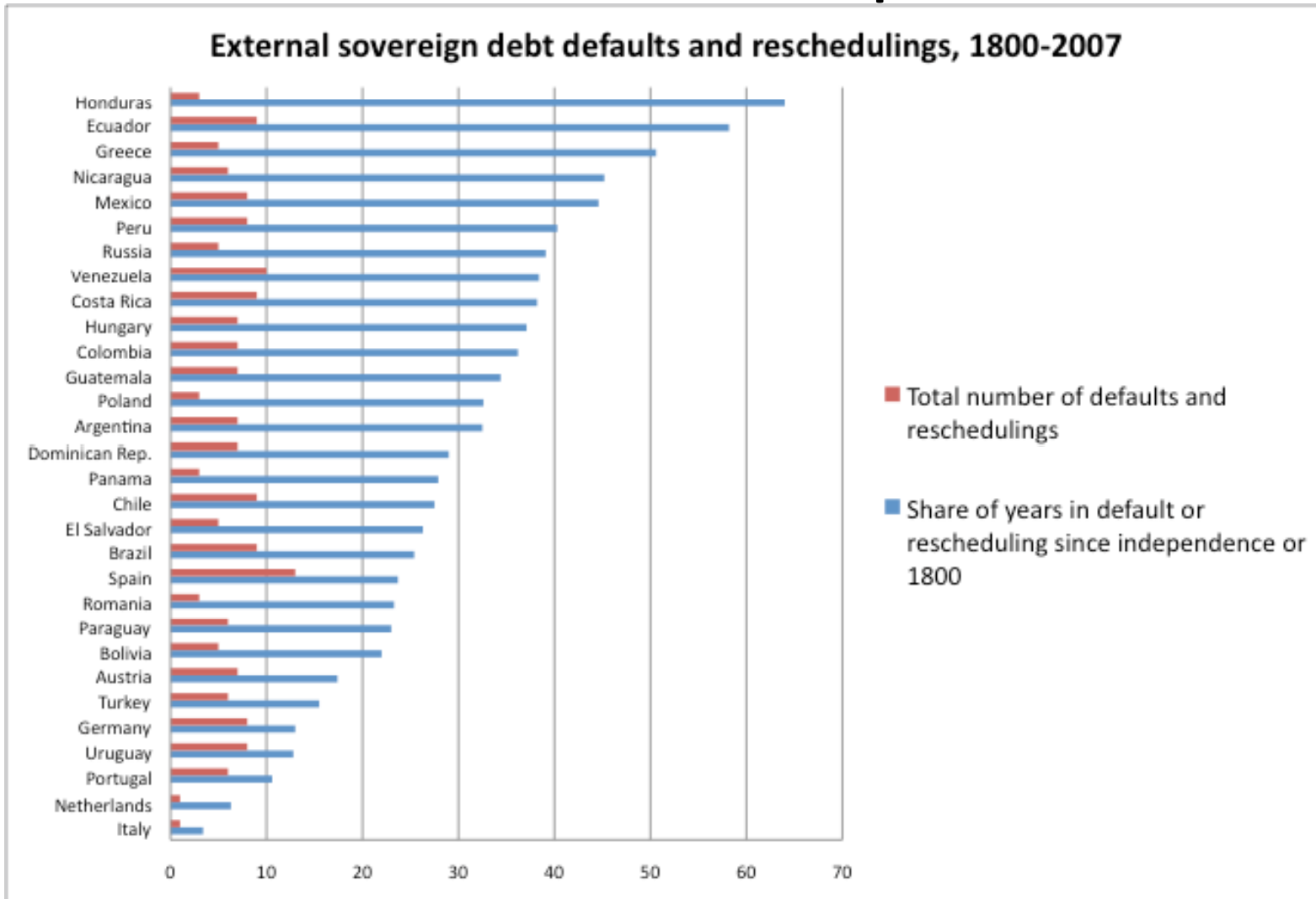
# Latin America, Central, Eastern and Southern Europe, and the Middle East



Source: Alan Taylor



# But advanced economies are not exempt



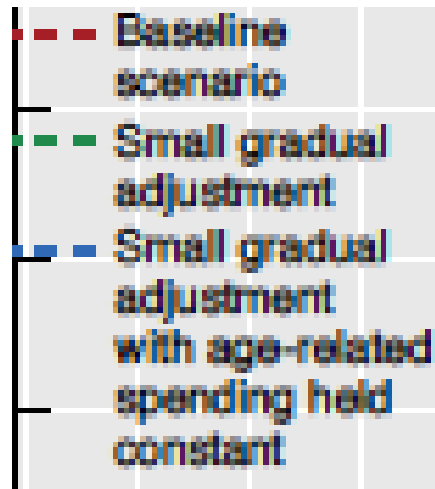
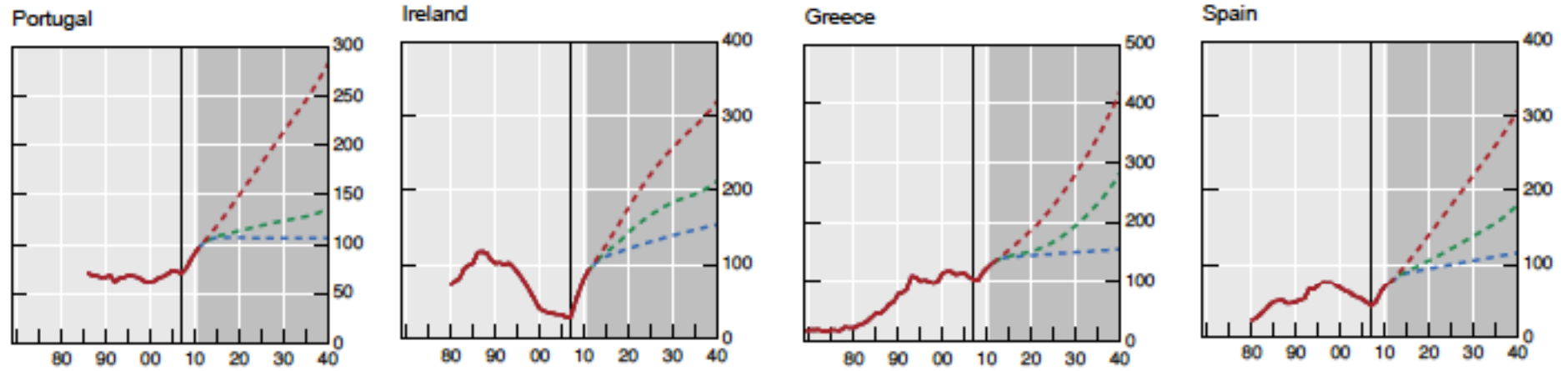
Source: Reinhart and Rogoff (2009)

# It happens to the best of us

	Since independence or 1800			Since 1800*		
	Share of years in a banking crisis	Share of years in default or rescheduling	Total number of defaults and reschedulings	Share of years in which inflation exceeded 20%	Share of years in which inflation exceeded 40%	Number of hyperinflation years
Austria	2	17	7	21	12	2
Belgium	7			10	7	
Denmark	7			2	1	
Finland	9			6	3	
France	12		8	6	2	
Germany	6	13	8	10	4	2
Greece	4	51	5	13	5	4
Hungary	7	37	7	16	4	2
Italy	9	3	1	11	6	
Netherlands	2	6	1	1		
Norway	16			5	2	
Poland	6	33	3	28	17	2
Portugal	2	11	6	10	4	
Spain	8	24	13	4	1	
Sweden	5			2		
United Kingdom	9			2		

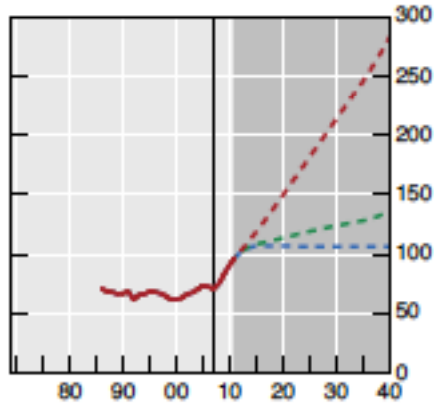
Source: Reinhart and Rogoff (2009)

# Debt/GDP projections

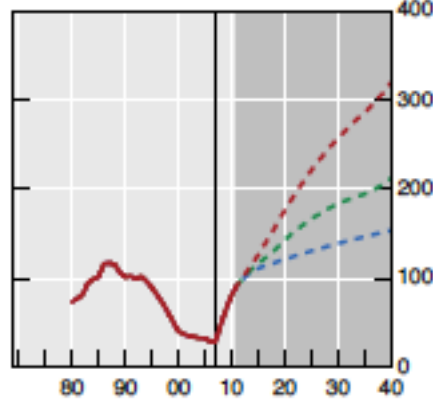


# Debt/GDP projections

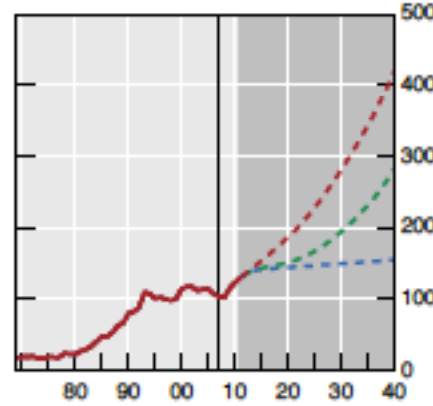
Portugal



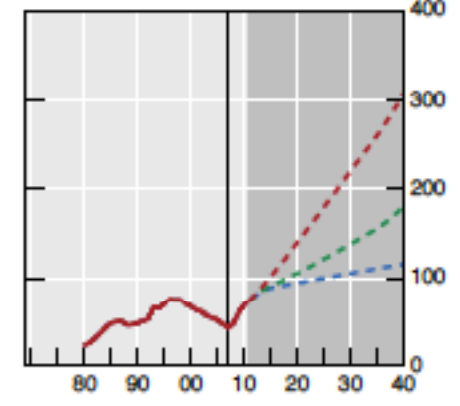
Ireland



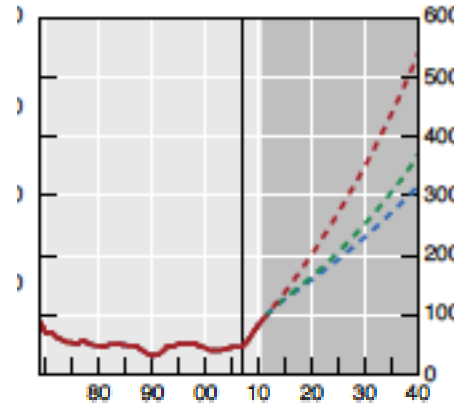
Greece



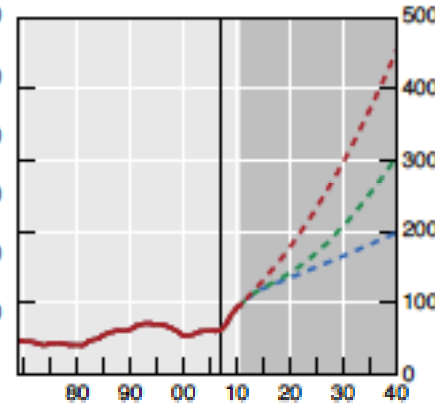
Spain



United Kingdom



United States



PIGS

'R'

US

# The metrics of doom 1

	Net_Debt	Cyclically_Adjusted_Primary_Balance
Italy	97.4	1.9
Japan	96.5	-5.6
Greece	86.1	-6.0
Belgium	81.3	0.4
Hungary	58.8	2.3
United_States	56.4	-7.3
Portugal	55.6	-2.8
France	53.1	-3.7
Germany	50.2	0.3
United_Kingdom	46.9	-6.8

# The metrics of doom 2

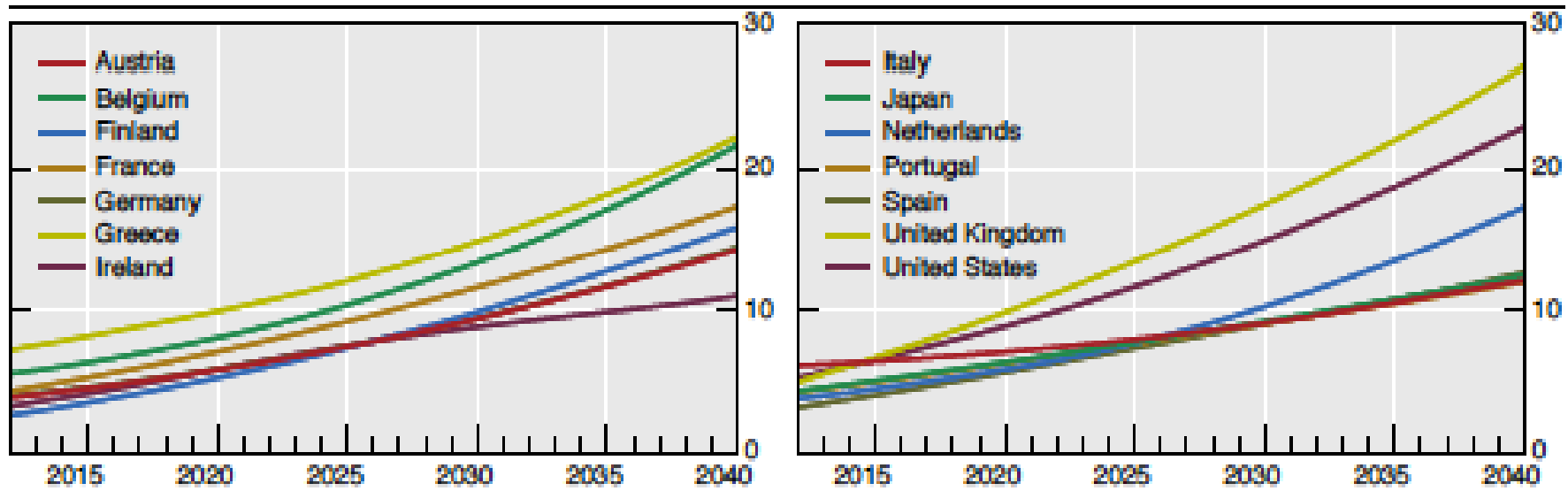
	Gross debt as % GDP	Fiscal adjustment 2010-2020 to attain 60% of GDP by 2030
Japan	227.0	13.4
United_Kingdom	81.7	12.8
Ireland	75.7	11.8
Spain	69.6	10.7
Greece	115.0	9.0
United_States	93.6	8.8
Portugal	81.9	6.5
France	85.4	6.1
Belgium	102.7	5.6
Austria	74.9	5.1

Source: IMF

# Out-pigging the PIGS

## Projected interest payments as a fraction of GDP

In per cent



Sources: OECD; authors' projections.

Memo: CBO extended baseline for total federal revenues in 2040: 22.3% of GDP

Source: BIS



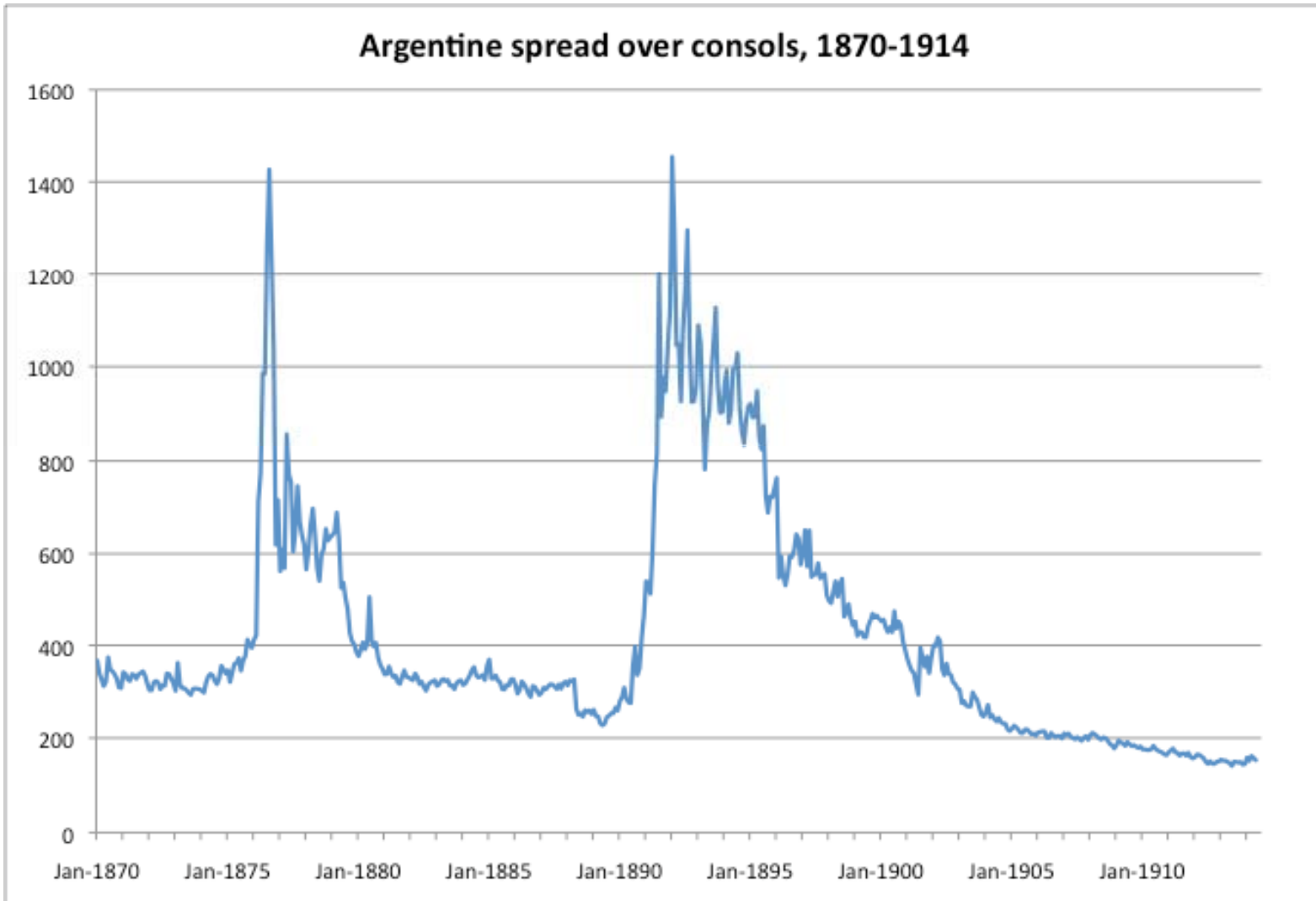
# What causes these crises?

- Excessive debt
  - Measured by debt to GDP or to revenue or to exports
- Excessive interest payments
  - Measured by debt service to GDP or to tax revenue
- Excessive reliance on foreign capital
  - Measured by debt to exports or net international investment position

# What causes these crises?

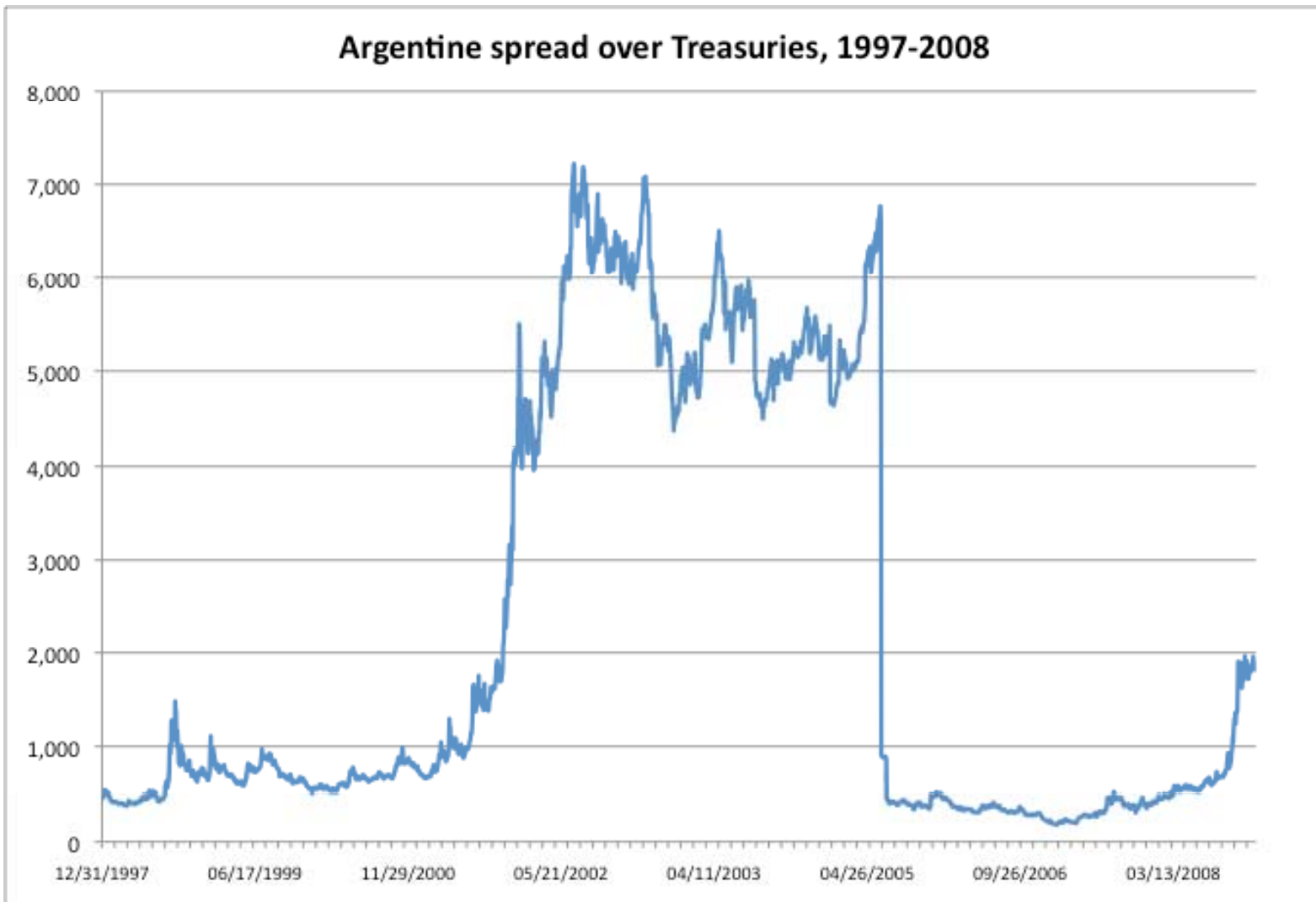
- Economic weakness
  - Low growth
  - Low returns on private sector investment
- Political weakness
  - Excessive expenditure and insufficient taxation are politically determined
- Irrational exuberance
  - Investors keep forgetting to learn from history

# Some people ...



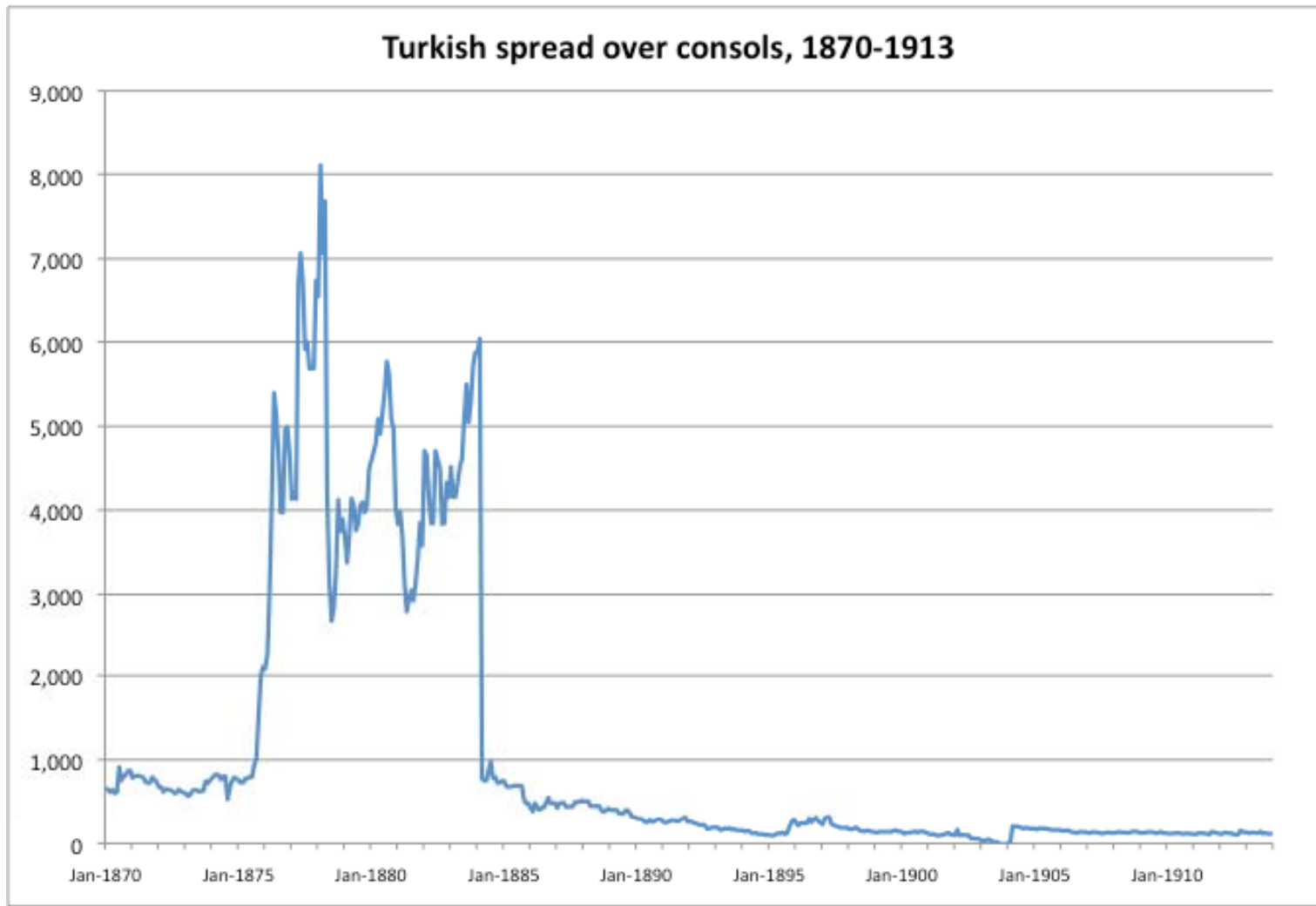
Source: NBER/GFD

... never learn



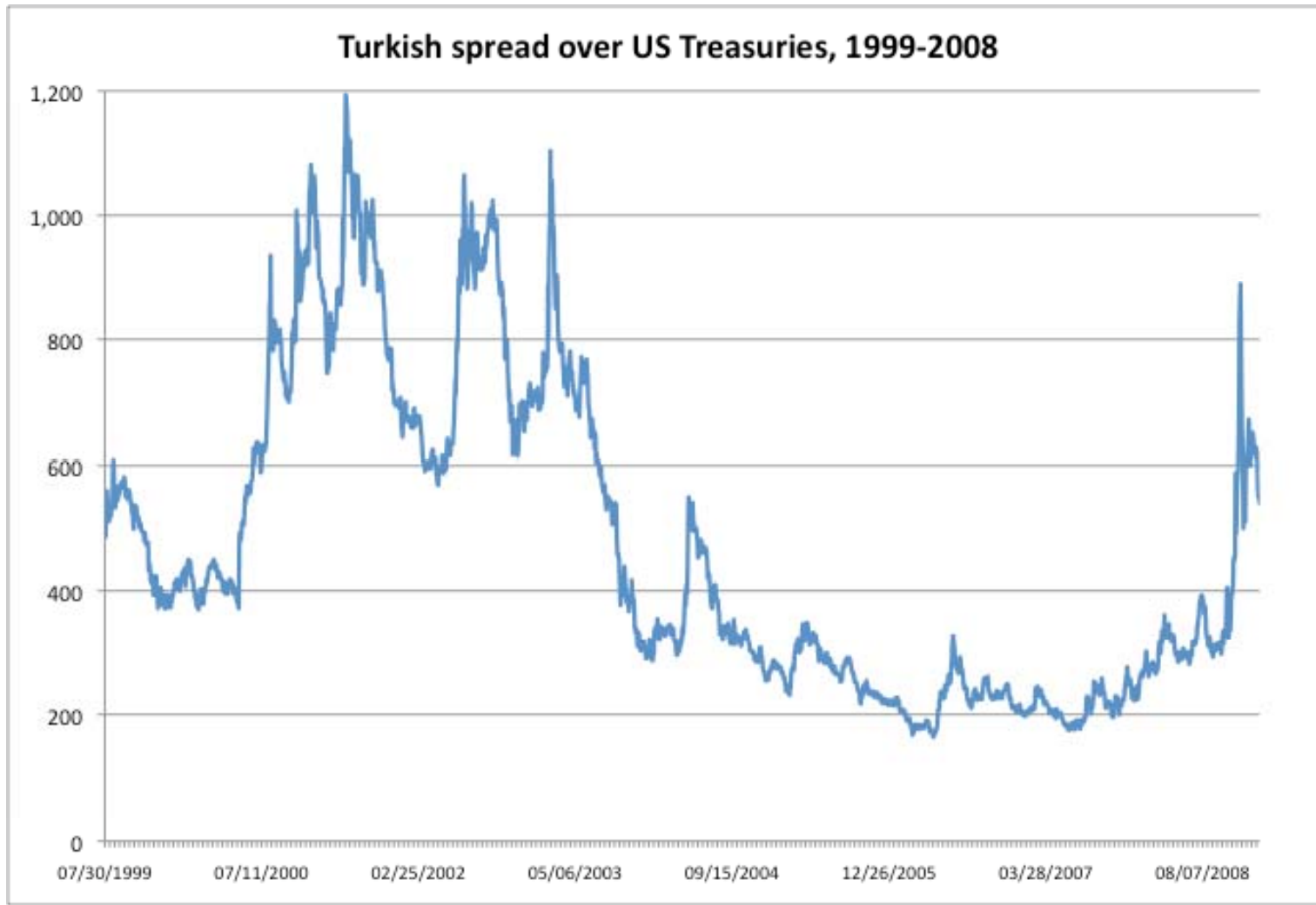
Source: NBER/GFD

# No matter how often ...



Source: NBER/GFD

... it happens



Source: NBER/GFD

# Sovereign debt: A history of hopes dashed by outcomes

	1850-1914		1915-1945		1945-1983	
	ex ante	ex post	ex ante	ex post	ex ante	ex post
Argentina	2.15		2.05		4.93	
Brazil	1.91		3.34			
Chile	2.42		3.3			
Mexico	2.87				2.39	
Australia	1.34		1.16		0.95	
Canada	1.3		0.64		2.23	
Egypt	4.07		-0.65			
Japan	1.47		3.24		2.91	
Russia	2.01					
Turkey	4.23		1		0.11	
Total	2.36		1.75		1.38	

Source: Lindert and Morton

# Sovereign debt: A history of hopes dashed by outcomes

	1850-1914		1915-1945		1945-1983	
	ex ante	ex post	ex ante	ex post	ex ante	ex post
Argentina	2.15	1.71	2.05	1.95	4.93	4.70
Brazil	1.91	0.88	3.34	1.48		
Chile	2.42	1.48	3.30	-1.90		
Mexico	2.87	-2.72			2.39	2.31
Australia	1.34	1.01	1.16	1.21	0.95	0.72
Canada	1.30	1.27	0.64	<b>0.65</b>	2.23	<b>2.25</b>
Egypt	4.07	2.92	-0.65	-0.73		
Japan	1.47	1.25	3.24	2.26	2.91	2.25
Russia	2.01	-1.63				
Turkey	4.23	-1.56	1.00	-0.88	0.11	-0.34
Total	2.36	-0.13	1.75	1.21	1.38	1.30

Source: Lindert and Morton



What are the ways out of a debt crisis?



# In theory, 6 ways out

- 1 A higher growth rate of GDP
- 2 A lower interest rate on the public debt
- 3 A bailout, meaning either a current transfer payment or a capital transfer from abroad
- 4 Fiscal pain, meaning an increase in taxes and/or a cut in public spending
- 5 Increased recourse to seigniorage (revenues from monetary issuance) by the central bank
- 6 Default, including every form of non-compliance with the original terms of the debt contract, including repudiation, standstill, moratorium, restructuring, rescheduling of interest or principal repayment etc.

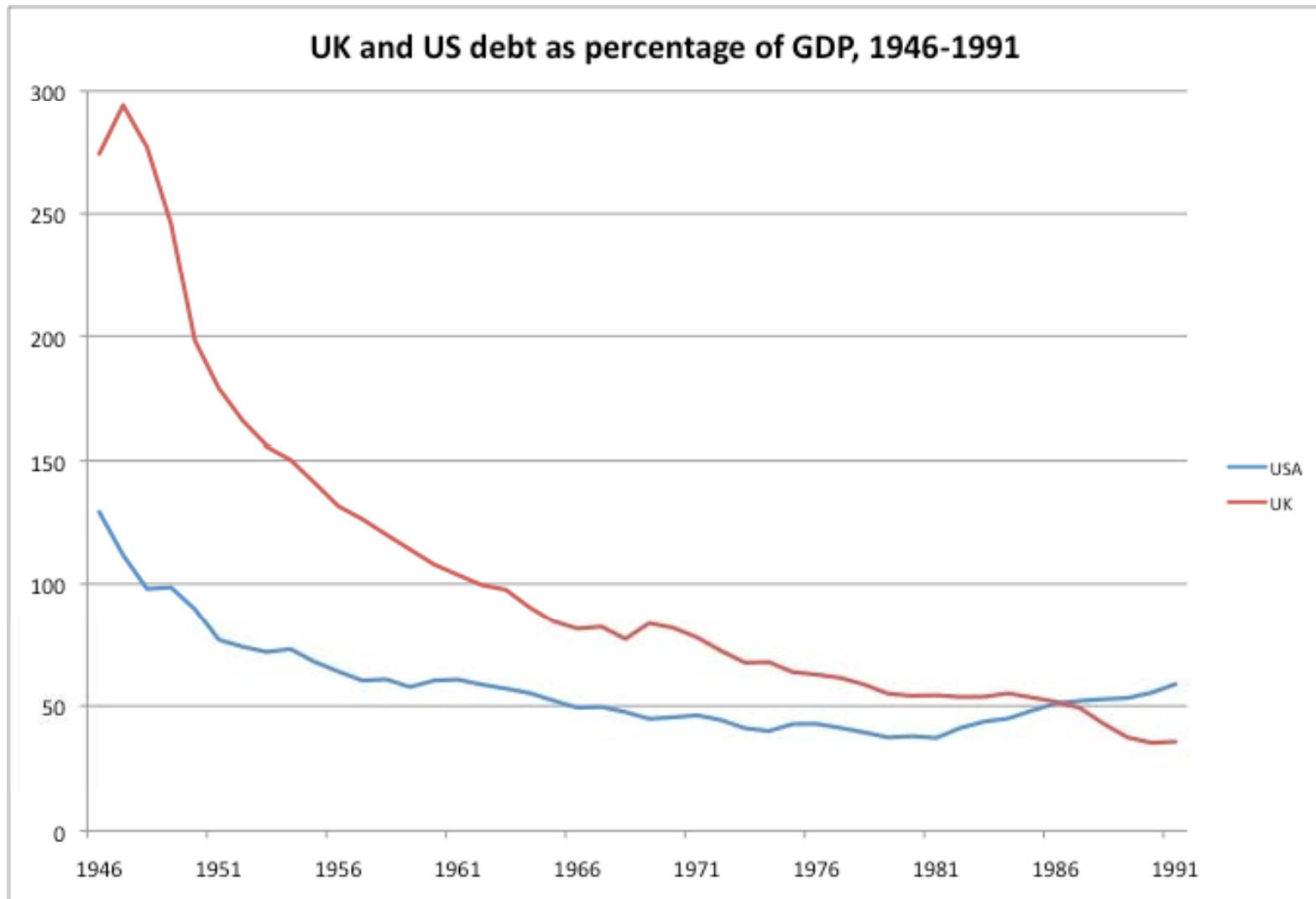
# Usually, only 3 ways out

- ~~1 A higher growth rate of GDP~~
- ~~2 A lower interest rate on the public debt~~
- ~~3 A bailout, meaning either a current transfer payment or a capital transfer from abroad~~
- 4 Fiscal pain, meaning an increase in taxes and/or a cut in public spending
- 5 Increased recourse to seigniorage (revenues from monetary issuance) by the central bank
- 6 Default, including every form of non-compliance with the original terms of the debt contract, including repudiation, standstill, moratorium, restructuring, rescheduling of interest or principal repayment etc.

# Cut, Print, or Default

- Cutters are few and far between
  - Only Britain 1815-1914 reduced debt burden exclusively through budget surpluses, lower interest rates and higher growth
  - And Britain had the advantage of the industrial revolution
- Printers
  - States with monetary sovereignty
  - States with own-currency debt
- Defaulters
  - States with limited monetary sovereignty
  - States with foreign currency debt

# Two great Anglosphere debt reductions

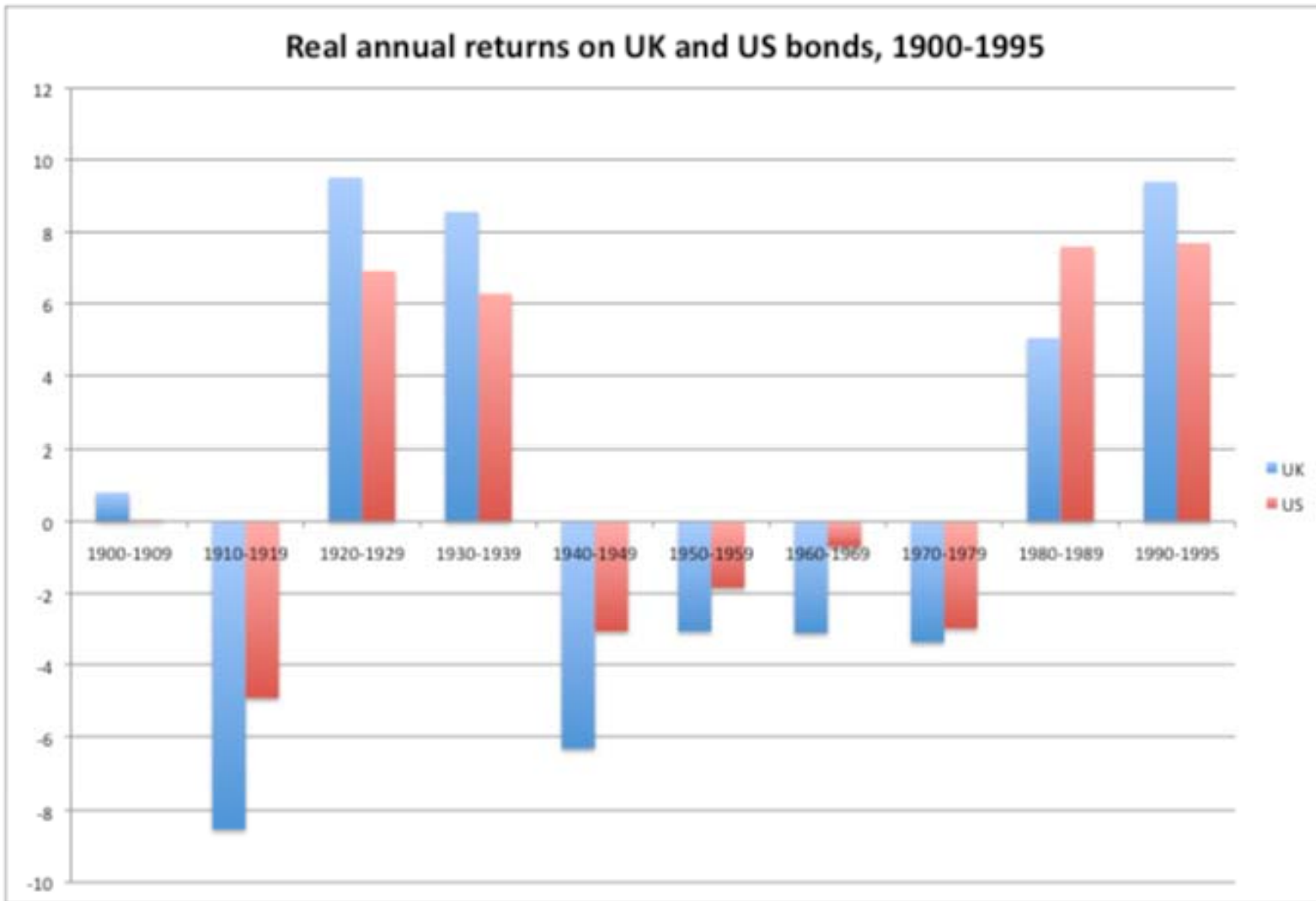


Source: Musson

# Lessons of post-war history

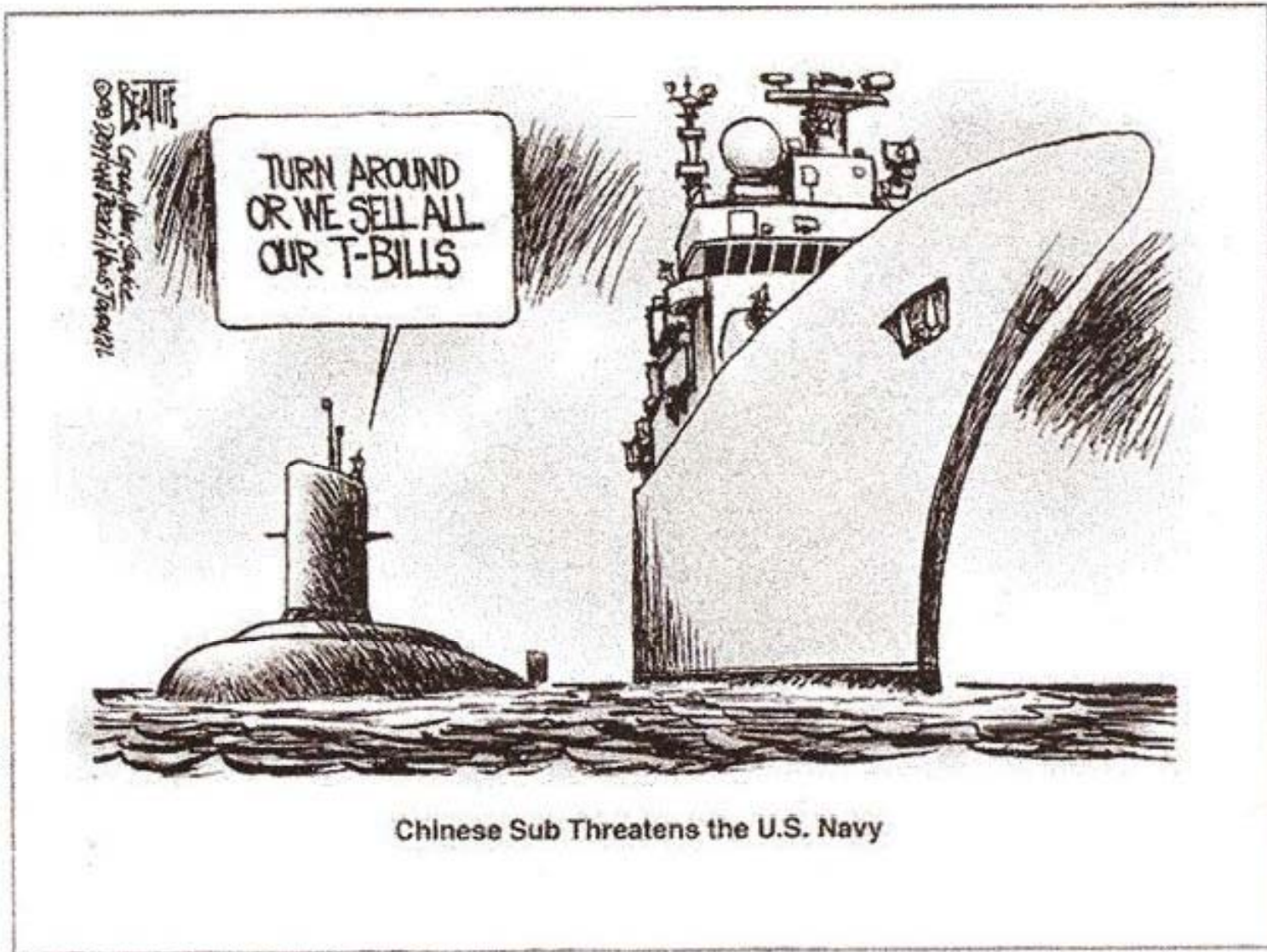
	US	UK
Total reduction (% GDP)	90	212
Growth	56	98
Inflation	53	228
Budget surpluses	-21	-124

# Bondholders beware



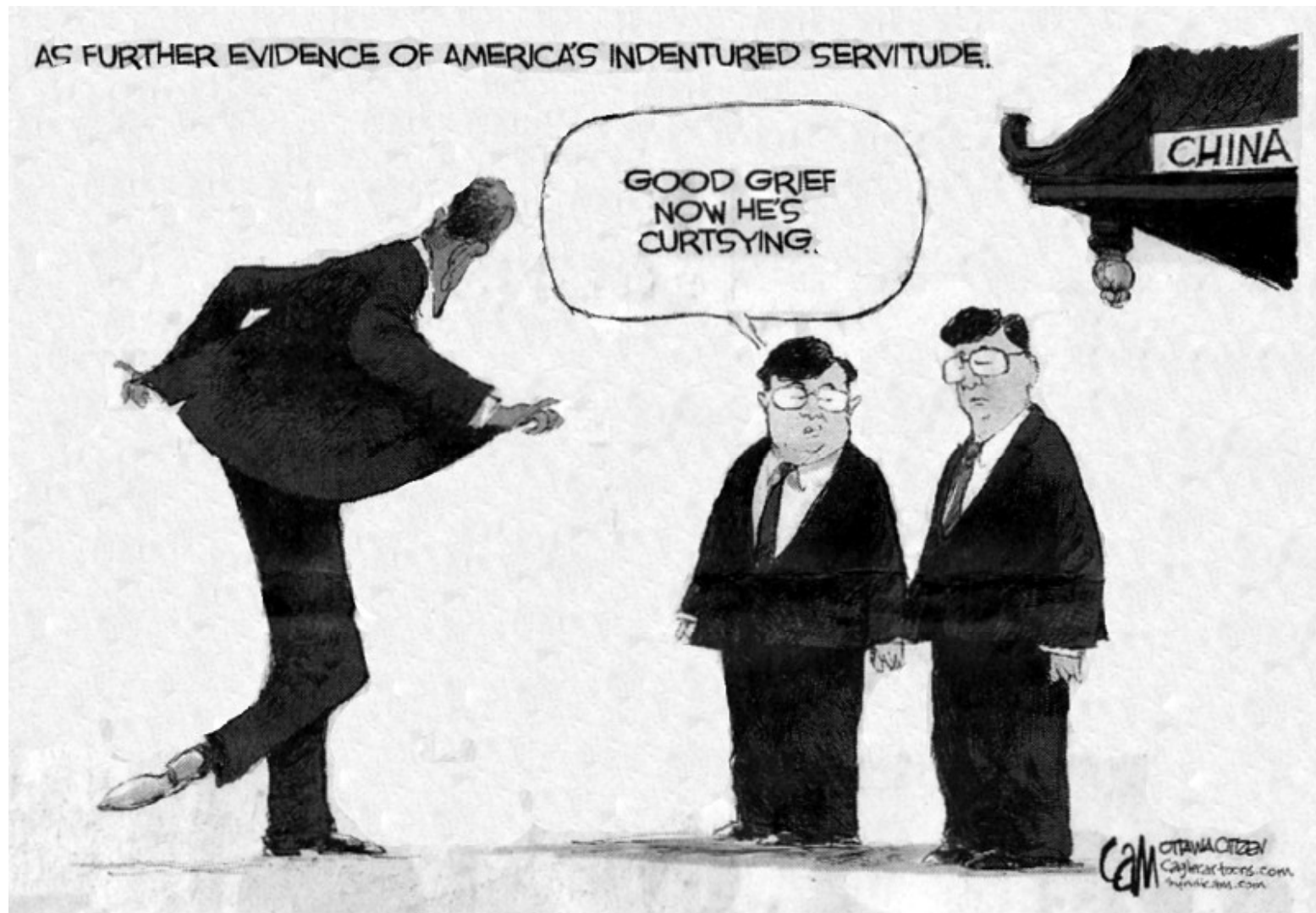
Source: GFD

# What are the implications?





# What are the implications?



# Lessons of history (1)

- What do governments NOT\* do with world war size debt burdens?
  - Slash expenditure on entitlements
  - Reduce marginal tax rates on income and corporate profits to stimulate growth
  - Raise taxes on consumption to reduce deficits
  - Grow their way out with out defaulting or depreciating their currencies

\*One exception: Britain 1815-1913

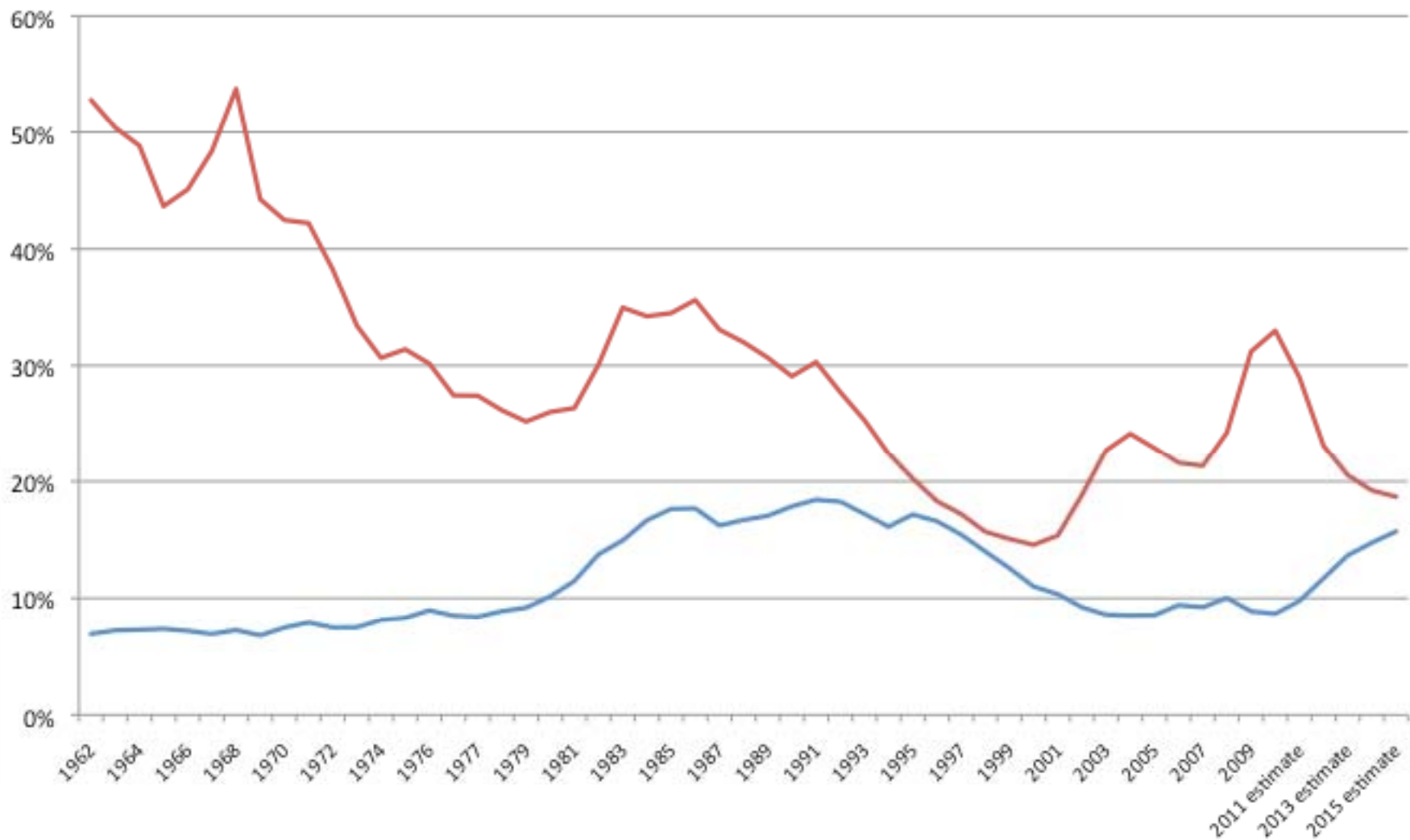
## Lessons of history (2)

- What do governments USUALLY do with world war size debt burdens?
  - Oblige central bank and commercial banks to hold government debt
  - Restrict overseas investment by firms and citizens
  - Default on commitments to politically weak groups and foreign creditors
  - Condemn bond investors to negative real interest rates

## Lessons of history (3)

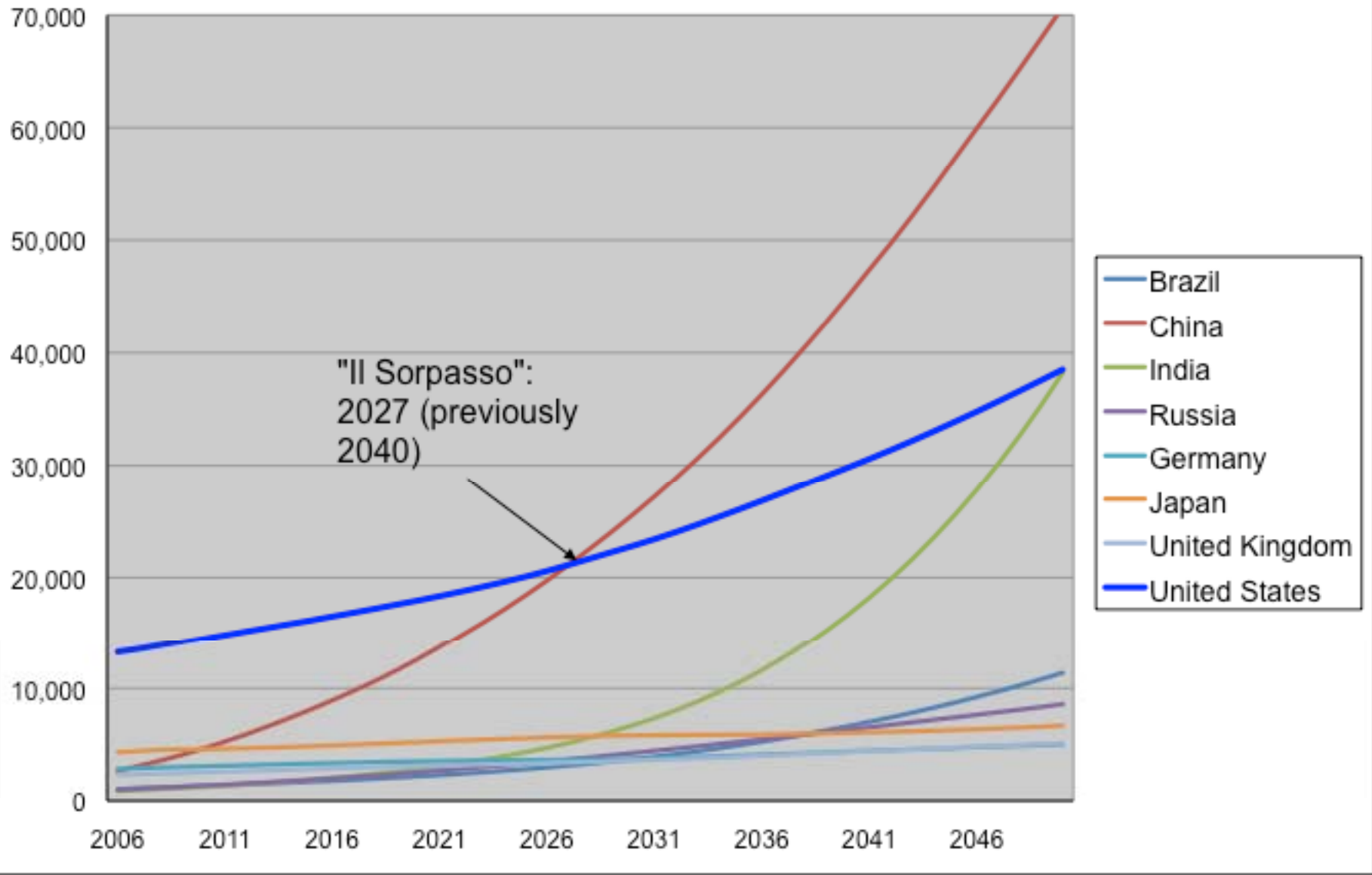
- What are the geopolitical consequences of crises of public finance?
  - In fiscal stabilizations, discretionary military spending is usually the first casualty
  - In cases of default on external debt, conflicts with creditors can arise
  - In cases of currency depreciation, reserve currency status can be lost to a rising rival

**Defense (red) and debt service (blue) as percentages of federal revenues, 1962-2015**



Source: White House

Goldman GDP projections (bn 2006 \$) BRICs v the "G4", 2006-2050



Source: Goldman Sachs

It's quite a short ride from here ...



... to here



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