

Sources of Systemic Risk

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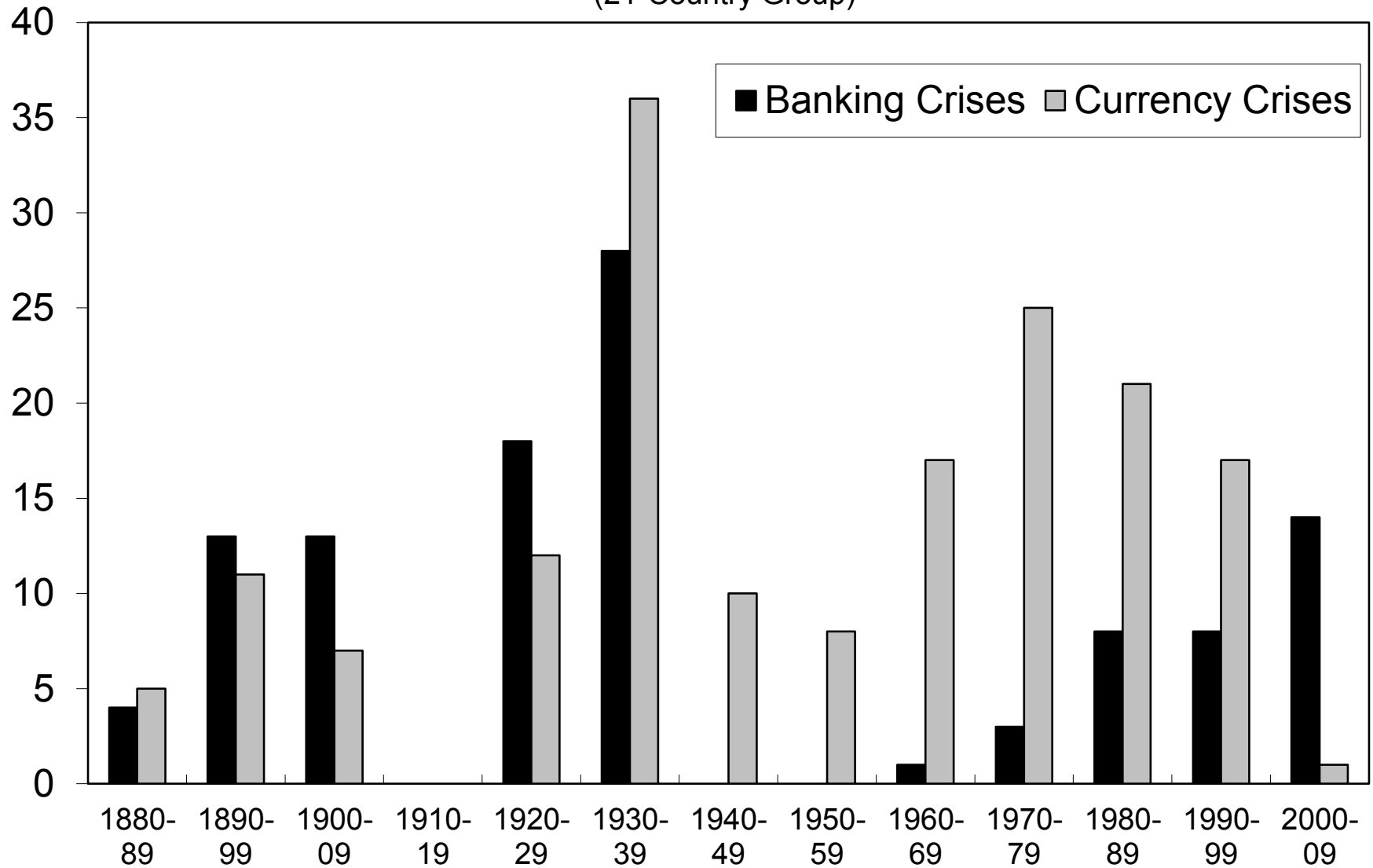
PAAMCO

and

University of California at Irvine

Number of Banking and Currency Crises

(21-Country Group)

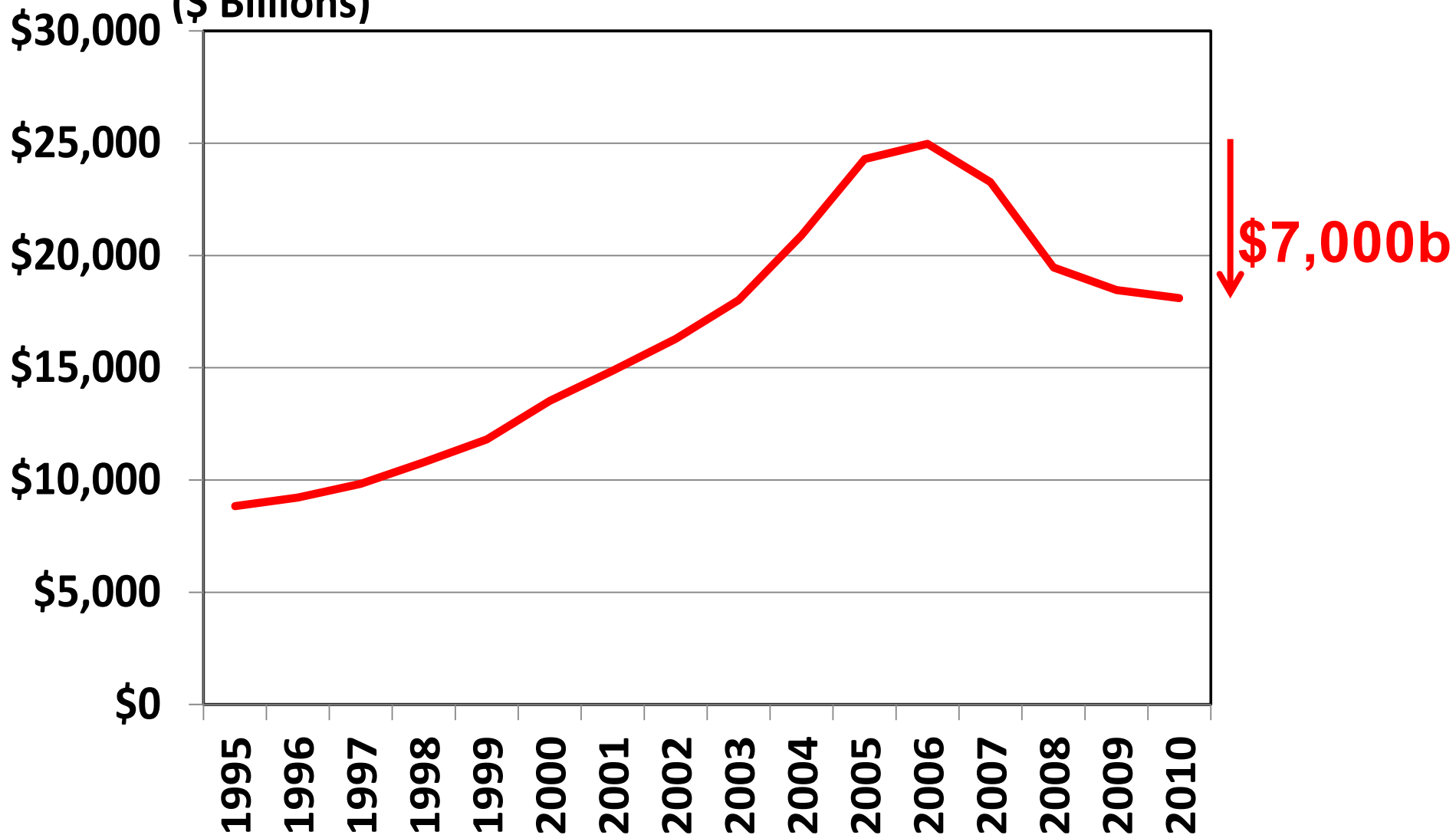


Systemic Banking Crises: 1970-2002

Start Date	Country	Institutions		Cost	
		Closed or Rescued	Reason	% GDP	\$ bn
1977	Spain	53 banks	Recession	6	\$10
1988	United States	1400 S&Ls, 1300 banks	Property loans	3	\$180
1991	Sweden	5 banks	Property loans	4	\$15
1994	Venezuela	22 banks	Bad loans	15	\$11
1995	Mexico	20 banks	Devaluation, lending	19	\$81
1997	Japan	61 institutions	Stock market, property	24	\$960
1997	South Korea	303 institutions, 9 banks	Devaluation	31	\$100
1997	Indonesia	83 banks	Devaluation	55	\$83
1997	Thailand	59 institutions	Devaluation, property	44	\$49
1997	Malaysia	29 institutions, 2 banks	Devaluation	16	\$14
1998	China	4 state banks	Bad loans	18	\$321
1998	Russia	720 banks	Devaluation	6	\$15
2000	Turkey	21 banks	Devaluation	31	\$54
2000	Argentina	70 institutions	Devaluation	32	\$46
Average:				22	\$138

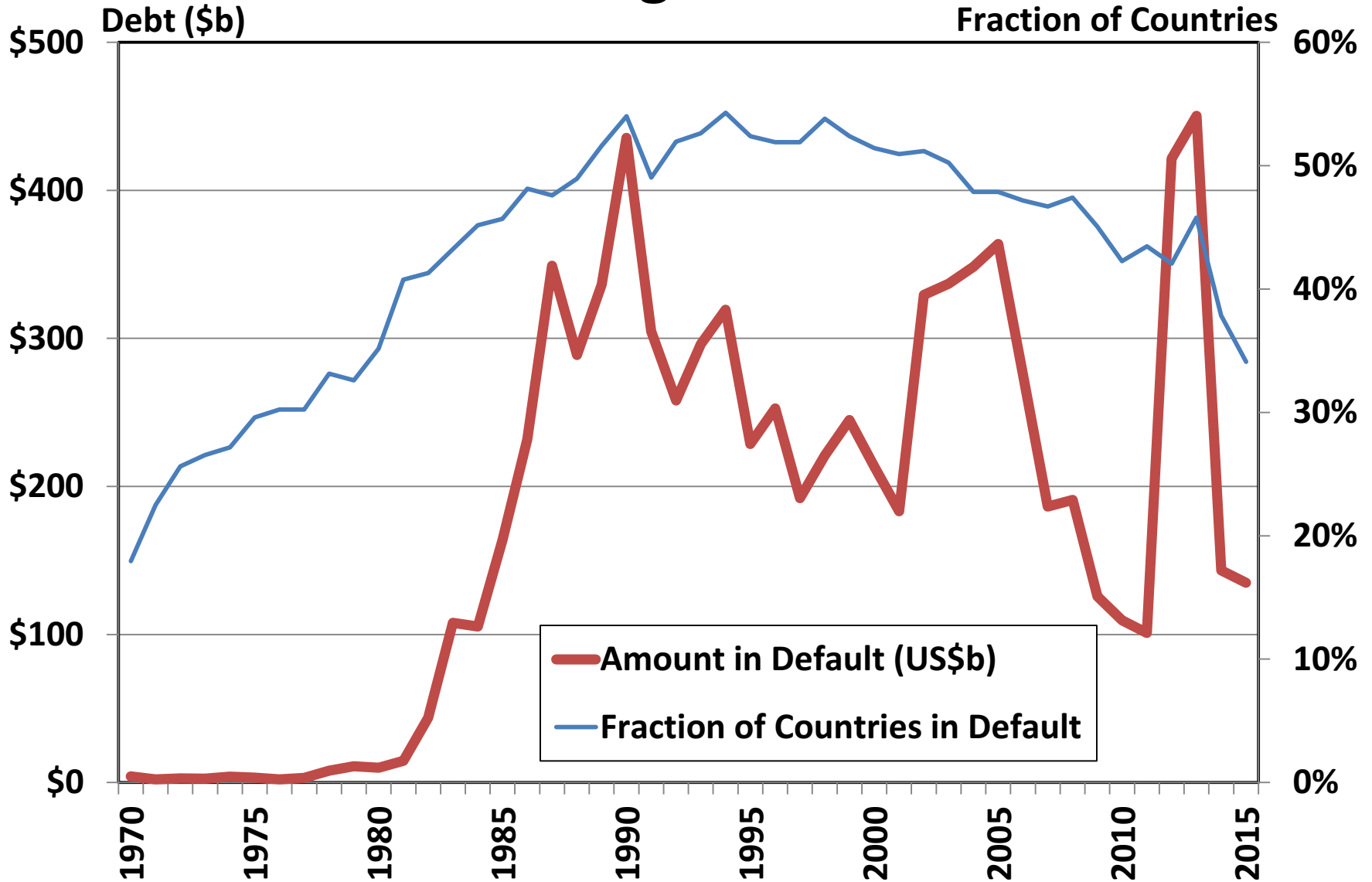
Value of U.S. Residential Real Estate

(\$ Billions)



Source: Flow of Funds, Household real estate at market value (series LM155035005)

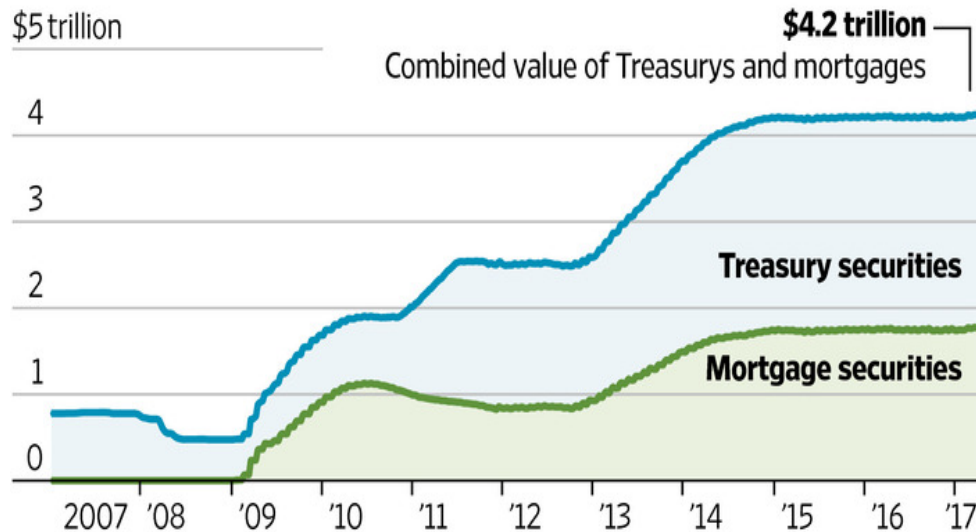
Sovereign Defaults



Source: Bank of Canada, CRAG sovereign database

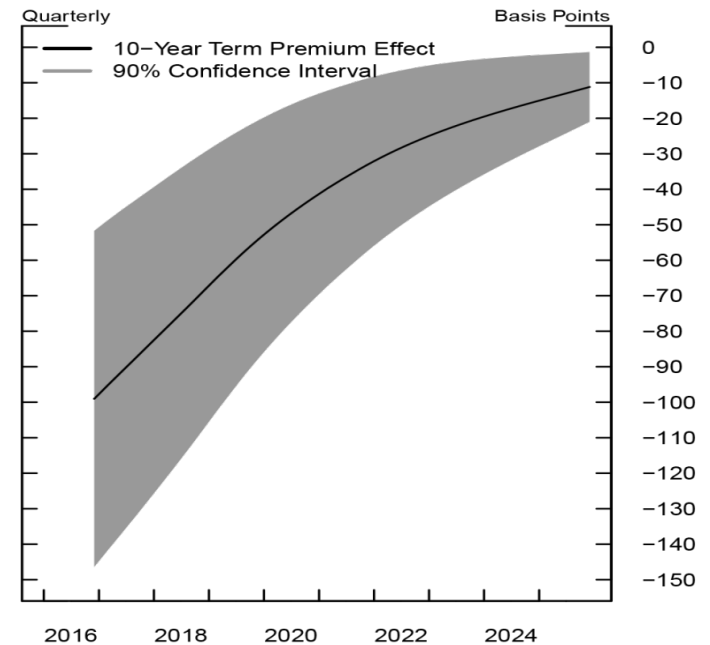
Unwinding Monetary Policy

Unwinding this...



should lead to this

10-Year Term Premium Effect



“Greenspan sees another taper tantrum once rates rise” (May 2015)

Arbitrary Enforcement

- Over 2011-2015, legal costs imposed on banks amounted to **\$370 billion**
- Sep 2016: D.of Justice requests **\$14 billion** in penalties from Deutsche Bank (80% of its market capitalization)

THE WALL STREET JOURNAL.

OPINION | REVIEW & OUTLOOK (U.S.)

Who's the Systemic Risk Now?

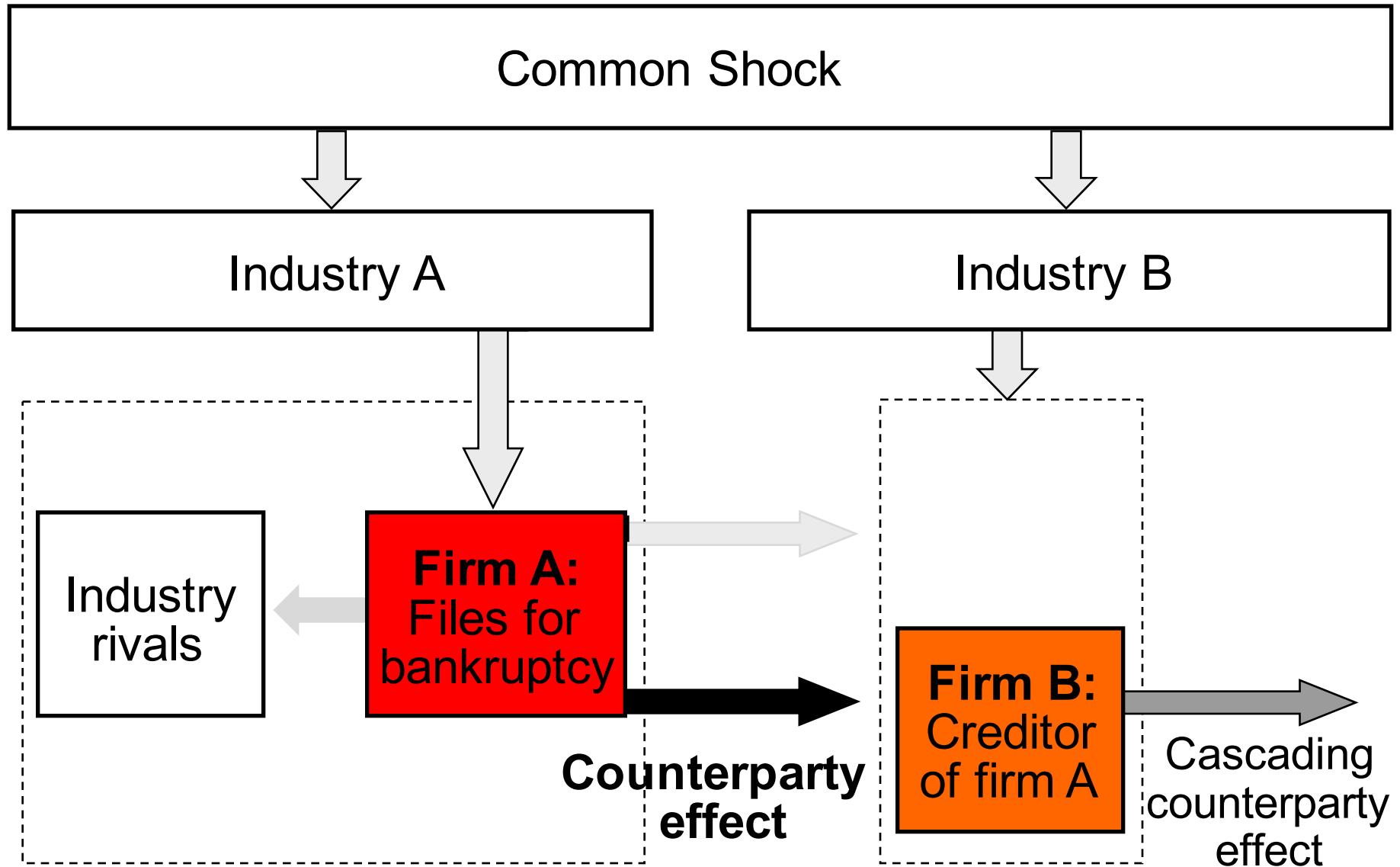
Fischer Black's View

Investors like to speculate. Financial institutions accommodate them, often hedging to reduce the risk of insolvency.

Neither investors nor financial institutions create systemic risk. Governments do that, by refusing to enforce contracts, and by guaranteeing private debt without charging market rates for the insurance they are providing.

Then governments ask for tax money so they can regulate to reduce the systemic risk they themselves have caused.

Counterparty Risk



Source: Jorion and Zhang (2009), "Credit contagion from counterparty risk," *Journal of Finance*

Counterparty Risk: Eurozone 2009

	Bank Equity	Claims on Greece	Claims on Portugal	Claims on Spain
(Billions EUR)	(Dec 08)	(Sep 09)	(Sep 09)	(Sep 09)
France	268	51	24	134
Germany	145	29	32	164
Greece	25	.	0	0
Italy	196	6	5	21
Netherlands	94	8	8	86
Portugal	28	7	.	20
Spain	202	1	60	.
Switzerland	94	44	2	10
United Kingdom	327	8	17	82
United States		11	4	36
Foreign Claims		206	196	787
Gov't Debt		291	154	579

Source: BIS, Claims of reporting banks

Positive Steps for Counterparty Risk

- Bank capital has gone up sharply
- Greater transparency:
 - » regulatory stress tests for banks
 - » wider use of centralized clearing (but?)
- Regulators now have more information on network effects
 - » ECB analysis of interbank exposures suggests the banking system should be more resilient
(“European Lehman Moment would not cause a Lehman Moment”)

Sources of Systemic Risk

- Governments
 - » Real estate/property
 - » Fixed exchange rates
 - » Sovereign default risk
 - » Uncertainty in monetary policy
 - » Arbitrary enforcement
- Counterparty/network effects