

Bad Banks as a Response to Crises:

When Do Governments Use Them and Why Does Their Governance Differ?

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Outline

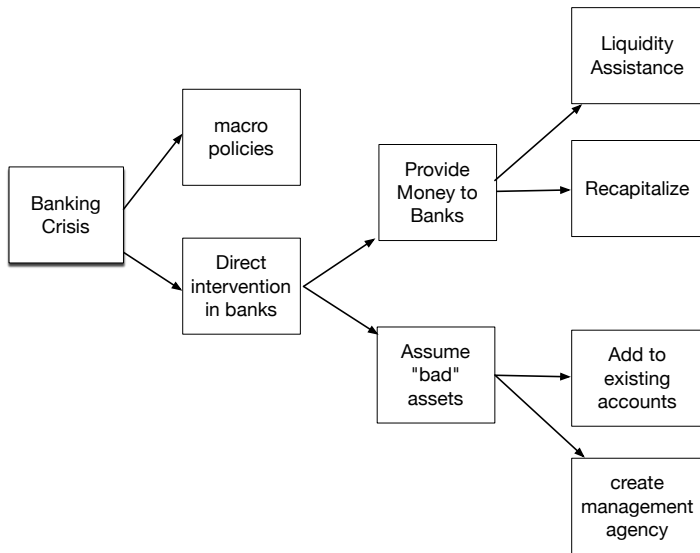
- 1 Background & Research Questions
- 2 Benefits & Costs
- 3 Data & Methods
- 4 Major Findings

The Problem

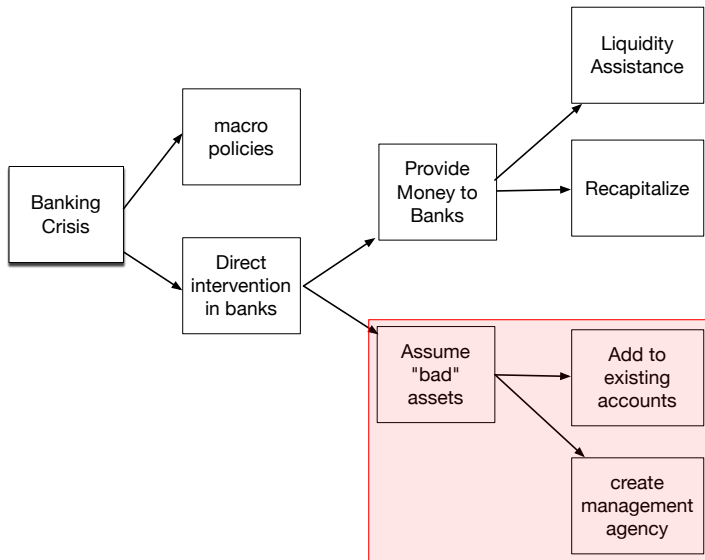
Banking crises are when there are or likely will be a large number of **insolvencies**.

The Main Problem is how to **contain** and **resolve** insolvent financial institutions so that the financial system functions again.

Public Sector Banking Crisis Choices



Public Sector Banking Crisis Choices



What are they?

- ▶ Entities created and largely owned or controlled by a government to **acquire, manage, and dispose** of distressed assets.
 - ▶ *Our Focus Here:* **Centralised** (1 national institution) or **decentralised** (multiple, bank/asset-class specific)

Examples

Table: Recent public AMC Examples From the European Banking Crisis

Centralised	Decentralised
Ireland's NAMA, Spain's Sareb	Germany's FMS Wertmanagement, UK's UKAR

Also, a tool in the proposed **Single European Resolution Mechanism** toolkit.

Why Should We Care?

AMCs are **not** inherently 'good' or 'bad' tools for resolving crises.

Their effectiveness is a function of their **design** and **political/economic context**.

This is a **starting point** for a larger research program to understand when and how they are **effective**.

Why do governments **create** them?

When they are created, **how** are they **designed**?

General AMC Benefits (or costs) for Policymakers

Benefits (or costs):

Whether cost or benefit often depends on **design** and policymakers' **incentives**.

- ▶ Allow banks to focus on core functions/Restore solvency/Make attractive for sale
- ▶ Impose costs on banks
- ▶ Shift costs to taxpayers
- ▶ Shift costs into the future/Avoid public perception of bailout
- ▶ Delegation/Remove control from coalition partners

Selected Benefits/Costs by AMC-Type

One's benefit is the other's cost.

Centralised:

- ▶ Consolidate scarce skills
- ▶ Economies of scale

Decentralised:

- ▶ More information about borrowers
- ▶ Easier to wind down

We aimed to create an **exhaustive** data set.

- ▶ Centralised and Decentralised AMCs
- ▶ 1980-2012
- ▶ 105 AMCs in 68 countries
- ▶ Data set includes **all countries** with available data

Figure: Number of Public AMC-type Institutions Created (1980-2012)

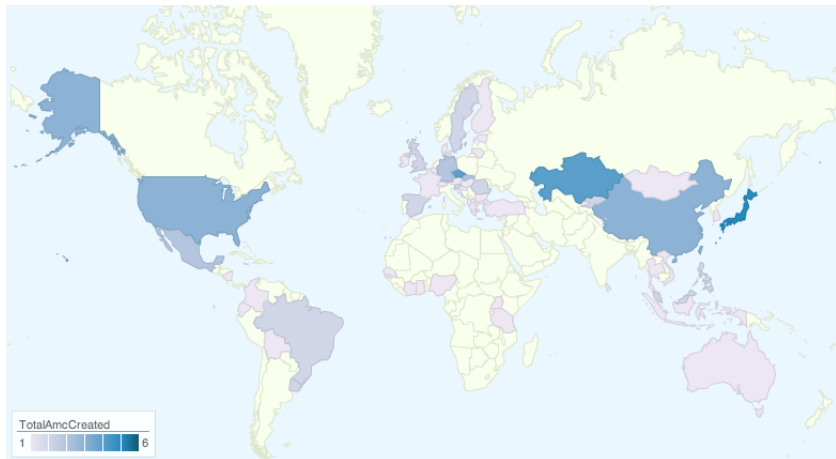
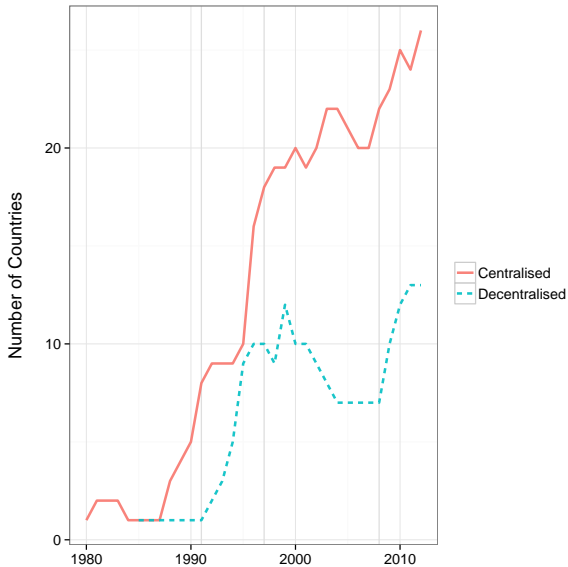


Figure: Countries with AMCs Operating per Year (1980-2012)



Empirical Model

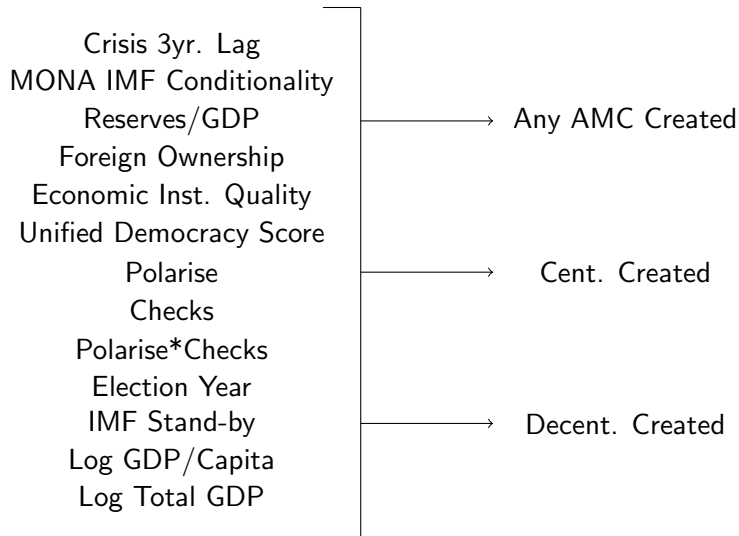
Need a model that:

- ▶ Allows repeated event types
- ▶ Deals with unobserved heterogeneity across countries

Model Choice:

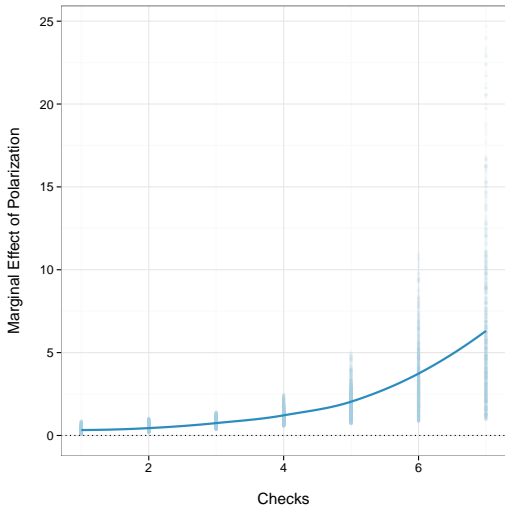
- ▶ Conditional Cox Proportional Hazard models stratified by number of AMC's created and with robust standard errors (country clusters)
- ▶ Separate models . . .

General Empirical Models



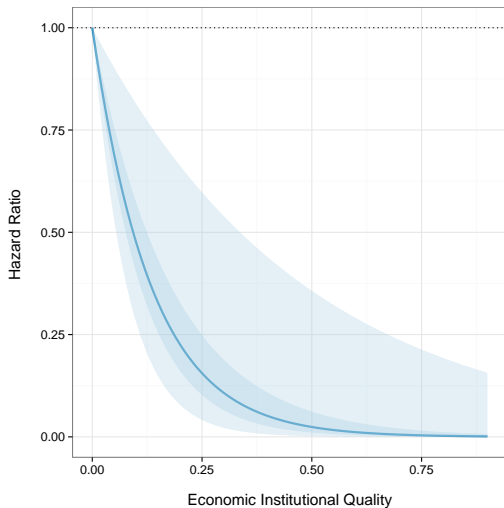
Bernhard (2002): more and more polarised veto players → delegation.

Figure: Creating Any AMC



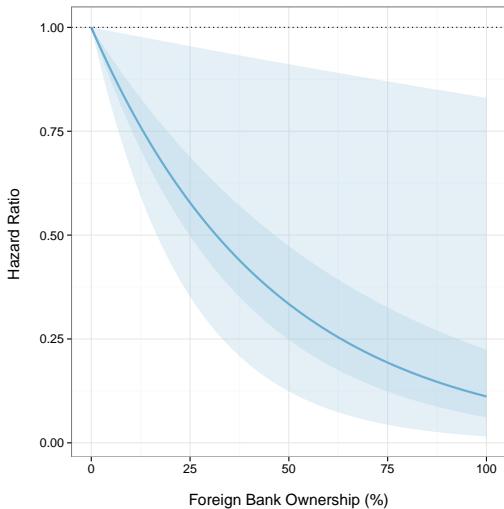
Higher **economic institutional quality** → less likely to create AMC.

Figure: Creating Any AMC



More **foreign ownership** → less desire/need for direct intervention.

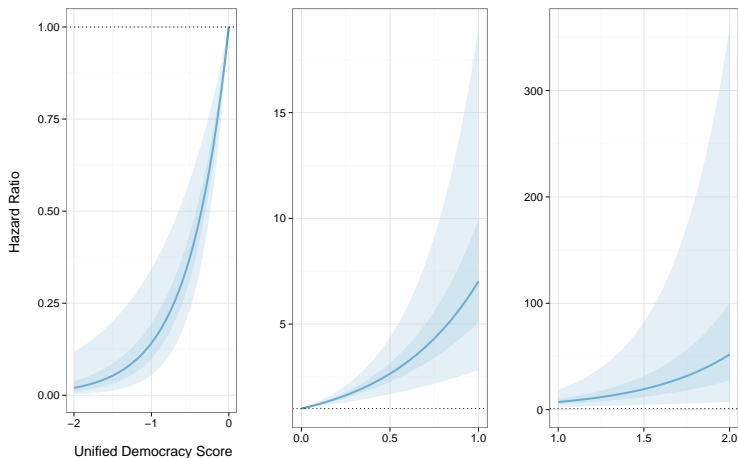
Figure: Creating Any AMC



Rosas (2006) **less democracy** → more likely to create AMC.

But, even democratic politicians benefit from **cost shifting**...

Figure: Creating Decentralised AMCs



More work to do.

Build up data set's **detail**, particularly bad asset types, and get more **nuanced** than centralised/decentralised.

Examine **peer diffusion** effects.

Work in Progress: most recent version will be available at:

<http://ssrn.com/abstract=2241290>

Table: Coefficient Estimates from Cox PH Models for Creating Any Type of AMC

	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10
Crisis 3 yr. Lag	2.14*** (0.32)	2.35*** (0.36)	2.72*** (0.42)	2.52*** (0.35)	2.38*** (0.42)	2.24*** (0.38)	2.26*** (0.38)	2.17*** (0.60)	2.25*** (0.39)	2.27*** (0.40)
MONA IMF Condition	2.03*** (0.47)	1.95*** (0.52)	1.59** (0.51)	1.50** (0.46)	1.54 (0.92)	1.86* (0.80)	1.75* (0.82)		1.82* (0.83)	1.87* (0.86)
Reserves/GDP	-0.04* (0.02)	-0.02 (0.02)	-0.04* (0.02)	-0.04 (0.02)	-0.01 (0.03)	-0.03 (0.03)	-0.03 (0.03)	-0.05 (0.04)	-0.03 (0.03)	-0.04 (0.03)
Foreign Ownership		-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.02 (0.01)	-0.02 (0.01)	-0.02 (0.01)	-0.02* (0.01)	-0.02 (0.01)	-0.02* (0.01)
Economic Inst.			-5.65*** (1.33)		-9.64*** (2.78)	-8.62** (2.65)	-8.90** (2.76)	-8.09* (3.58)	-8.34** (2.72)	-7.44** (2.79)
UDS				-0.30 (0.25)	0.96 (0.62)	1.23 (0.67)	1.23 (0.69)	1.47 (0.81)	1.28 (0.73)	1.15 (0.67)
Polarise					0.12 (0.28)	-1.65* (0.79)	-1.52* (0.78)	-1.61 (0.98)	-1.66* (0.78)	-1.77* (0.76)
Checks					0.02 (0.18)	-0.48 (0.36)	-0.47 (0.35)	-0.51 (0.57)	-0.47 (0.35)	-0.42 (0.35)
Polarise*Checks						0.46* (0.21)	0.43* (0.21)	0.43 (0.34)	0.46* (0.21)	0.48* (0.21)
Election Year							-0.42 (0.45)			
IMF Stand-By								-0.62 (0.53)		
Log GDP/Capita									-0.08 (0.31)	
Log Total GDP										-0.17 (0.13)
AIC	445.75	333.71	318.74	366.28	219.70	216.88	218.16	169.35	218.77	217.47
R ²	0.02	0.03	0.04	0.03	0.04	0.04	0.05	0.04	0.04	0.04
Max. R ²	0.15	0.18	0.18	0.15	0.16	0.16	0.18	0.16	0.16	0.16
Num. events	53	41	41	43	28	28	28	22	28	28
Num. obs.	3115	1971	1970	2680	1455	1455	1281	1148	1439	1455
Missings	3452	4596	4597	3887	5112	5112	5286	5419	5128	5112
PH test	0.93	0.83	0.49	0.16	0.96	0.99	0.99	0.67	1.00	1.00

Robust standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table: Coefficient Estimates from Cox PH Models for Creating a Centralised AMC

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
Crisis 3 yr. Lag	2.58*** (0.43)	2.58*** (0.47)	3.29*** (0.48)	2.98*** (0.50)	3.07*** (0.55)	2.96*** (0.54)	3.15*** (0.51)	2.93*** (0.54)	3.13*** (0.53)	3.20*** (0.53)
MONA IMF Condition	2.32*** (0.48)	2.42*** (0.57)	1.97*** (0.44)	1.51** (0.51)	2.12** (0.72)	2.33*** (0.67)	1.90* (0.74)		1.92*** (0.52)	2.06*** (0.54)
Reserves/GDP	-0.03 (0.02)	-0.01 (0.02)	-0.05* (0.02)	-0.05 (0.03)	-0.07 (0.04)	-0.09* (0.04)	-0.02 (0.03)	-0.04 (0.04)	-0.03 (0.03)	-0.03 (0.03)
Foreign Ownership		0.00 (0.01)								
Economic Inst.			-8.91*** (1.54)		-9.96*** (2.25)	-9.72*** (1.95)	-9.33*** (2.11)	-9.04*** (1.91)	-9.42*** (1.96)	-8.90*** (2.06)
UDS				-0.84* (0.37)	0.80 (0.62)	1.07 (0.71)	0.49 (0.51)	-0.13 (0.53)	0.43 (0.61)	0.51 (0.51)
Polarise					-0.09 (0.40)	-1.67 (1.29)				
Checks					-0.14 (0.30)	-0.58 (0.53)				
Polarise*Checks						0.42 (0.34)				
Election Year							0.04 (0.65)			
IMF Stand-By								0.01 (0.41)		
Log GDP/Capita									0.03 (0.21)	
Log Total GDP										-0.11 (0.12)
AIC	261.78	202.11	231.31	222.72	165.01	164.14	201.64	221.22	210.00	209.43
R ²	0.02	0.02	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.03
Max. R ²	0.10	0.11	0.10	0.10	0.10	0.10	0.11	0.10	0.10	0.10
Num. events	29	22	29	25	21	21	24	26	25	25
Num. obs.	3115	1971	3050	2680	2075	2075	2151	2560	2617	2650
Missings	3452	4596	3517	3887	4492	4492	4416	4007	3950	3917
PH test	0.87	0.54	0.97	0.30	0.41	0.16	0.48	0.49	0.57	0.40

Robust standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table: Coefficient Estimates from Cox PH Models for Creating Decentralised AMCs

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
Crisis 3 yr. Lag	1.82*** (0.42)	2.04*** (0.49)	2.17*** (0.55)	1.91*** (0.48)	1.49** (0.52)	1.48** (0.51)	1.85*** (0.49)	2.28*** (0.66)	1.94*** (0.48)	1.95*** (0.48)
Reserves/GDP	-0.06** (0.02)	-0.04 (0.02)	-0.05 (0.03)	-0.04 (0.04)	-0.04 (0.04)	-0.04 (0.04)	-0.04 (0.04)	-0.07 (0.04)	-0.02 (0.03)	-0.03 (0.04)
Foreign Ownership		-0.02** (0.01)	-0.02** (0.01)							
Economic Inst.			-3.35 (1.96)		-9.92** (3.45)	-9.33** (3.50)	-10.46*** (2.73)	-13.34** (4.37)	-10.67*** (2.74)	-9.91*** (2.59)
UDS				0.37 (0.33)	2.17** (0.83)	2.16** (0.81)	2.42*** (0.69)	2.26*** (0.58)	1.77** (0.60)	1.96*** (0.59)
Polarise					0.50 (0.42)	-0.20 (1.02)				
Checks					0.07 (0.21)	-0.18 (0.31)				
Polarise*Checks						0.18 (0.23)				
Election Year							-0.70 (0.46)			
IMF Stand-By								-0.69 (0.96)		
GDP/Capita									0.00 (0.00)	
Log Total GDP										0.09 (0.15)
AIC	211.41	135.22	134.08	164.32	114.89	116.53	133.37	62.42	140.07	140.97
R ²	0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.01	0.01	0.01
Max. R ²	0.05	0.08	0.08	0.04	0.05	0.05	0.06	0.03	0.06	0.05
Num. events	26	19	19	20	15	15	18	10	19	19
Num. obs.	4783	1971	1970	4152	2391	2391	2423	2560	2964	3006
Missings	1784	4596	4597	2415	4176	4176	4144	4007	3603	3561
PH test	0.97	0.83	0.82	0.26	0.90	0.90	0.53	0.82	0.52	0.30

Log GDP/Capita not used because it violates the PHA. Robust standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$