

Coordinated Financial Crisis Resolution

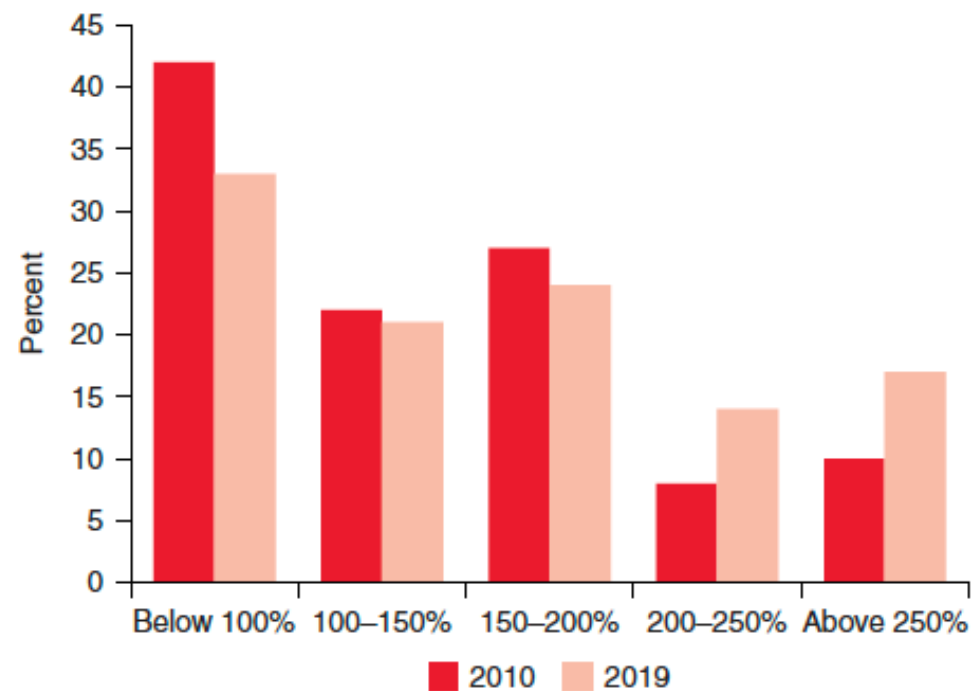
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Figure O.16 External Debt-to-GNI Ratio, Low- and Middle-Income Country Distribution, 2010 and 2019



Sources: World Bank Debtor Reporting System; and International Monetary Fund.

Figure O.17 External Debt-to-Export Ratio, Low- and Middle-Income Country Distribution, 2010 and 2019



Sources: World Bank Debtor Reporting System; and International Monetary Fund.

The Creditor Dilemma

- Creditors not able to close financing gap unilaterally.
- Even if lending occurs, default still likely.
- Exposed creditors face increased losses (existing and new claims).
- Incentives to increase exposure to debtor decline, unless...
- Debtor country receives support from other creditors.

The Creditor Dilemma

Mexico 1995:

- IMF: \$18bn
- U.S. government: \$20bn
- Latin American countries: \$1bn
- Canadian government: \$1bn
- Private commercial banks: \$3b

Greece 2012:

- IMF: \$19.8bn
- EFSF: EUR144.7bn
- Private commercial banks: 50% haircut

The Creditor Dilemma

- Much insight on individual creditor decisions:
 - IMF loans and conditionality (Vreeland 1999; Gould 2003; Stone 2008; Dreher 2009; Copelovitch 2010; Caraway et al 2012, amongst many others)
 - Official creditors (Broz 2005; McDowell 2017; Bon and Cheng 2020; Schneider/Tobin 2020, etc)
 - Private creditors (Reinhart/Trebesch 2016; Ferry 2019, etc)
 - Others, including regional and multilateral initiatives, central banks, etc
- How do lending decisions of these groups affect each other?
- Develop theory based on existing work, which focuses on individual actors (some exceptions: Gould 2003, 2006; Bunte 2019)

The Rationale for Coordination in Lending

- Effective crisis resolution key to avoiding financial calamities affecting debtors and creditors alike
- Collective incentive to avoid default
- Importance of informal coordination (in the absence of formal mechanisms):
 - Information sharing & monitoring
 - Enforcement
- IMF as coordinator and provider of credibility (conditions)

International Coordination During Crises

“For each of these targeted agreements, creditors would normally expect the government to reach a prior agreement with the IMF on a stand-by arrangement. That agreement, in turn, would require the Fund to have a solid assurance that Ecuador could finance its external payments. **This circle could be squared if all of the main parties could reach tentative agreements, conditional on the others,** so that the IMF could coordinate the complex package and bring all the negotiations to a conclusions. Any slippage would be fatal.”

(James Boughton 2012: 613)

Hypotheses

A group of creditors is more willing to lend to a debtor state to avoid default if:

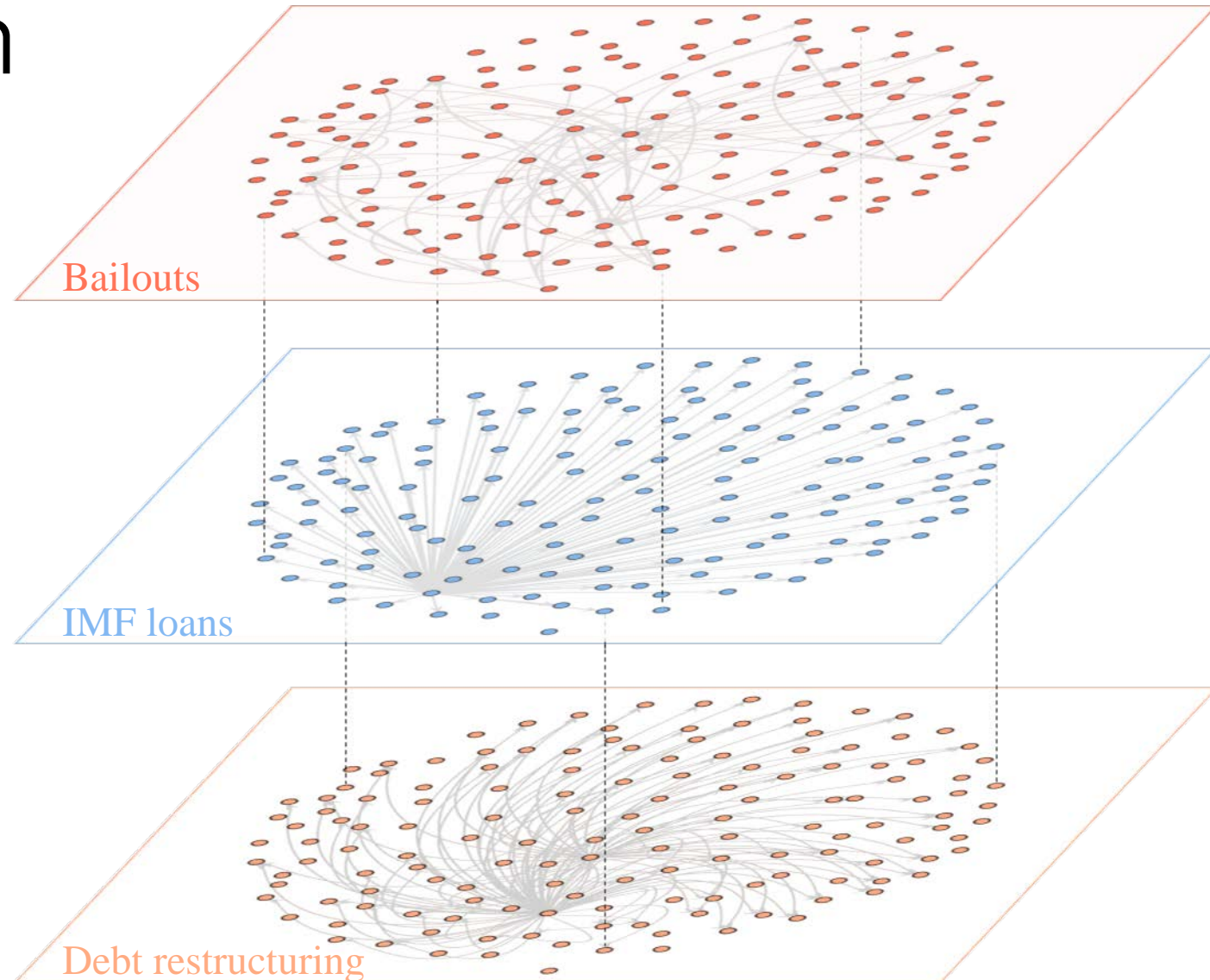
1. other creditor groups also commit to financial support.
2. the IMF offers a loan with strict conditionality

Next Steps: Distributional aspects

Research Design

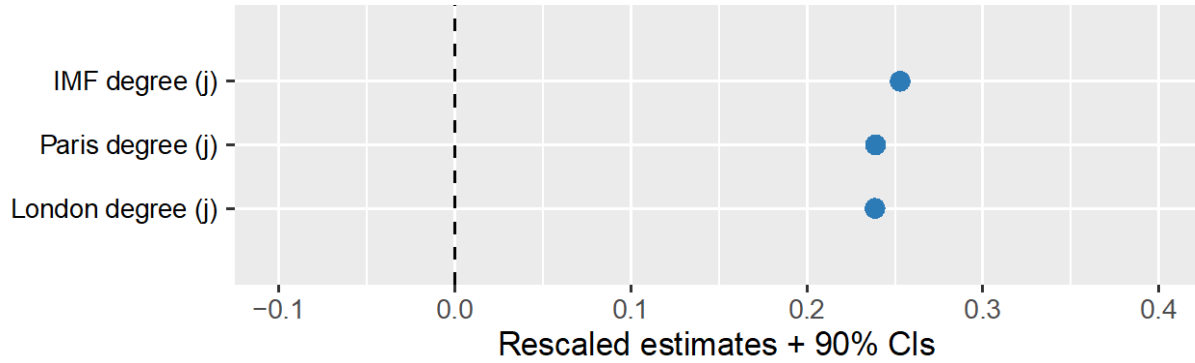
Stochastic actor-oriented model (SAOM):

- *Disjoint multi-layered network.*
- Estimate correspondence between receiving financial rescue in one network to rescue in other networks.
- Simultaneously model **cross-network effects** while controlling for non-network dynamics.
- DVs:
 1. Bilateral Bailouts
 2. IMF loan/IMF conditionality
 3. Paris Club debt restructuring
 4. London Club debt restructuring
- Network-specific controls

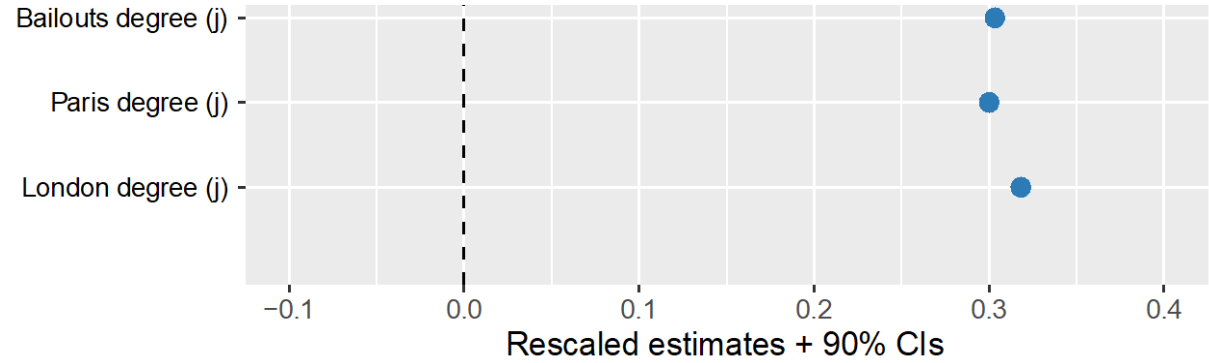


Main Results (IMF Loans)

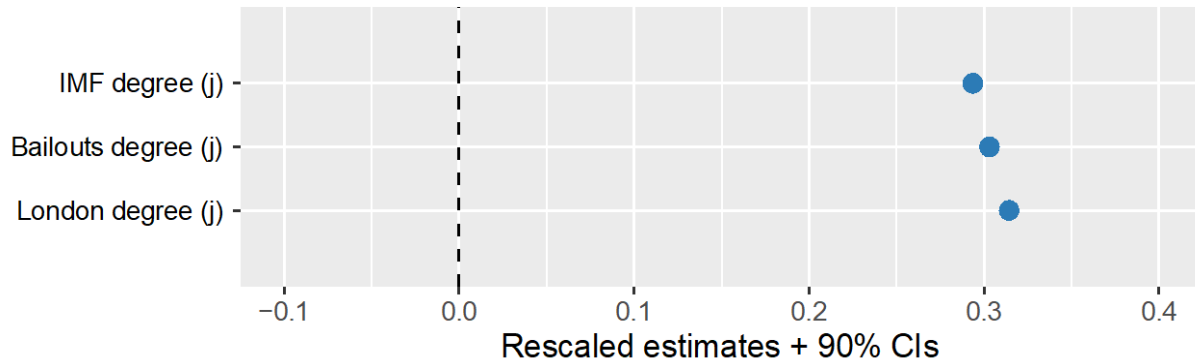
Bailouts Equation



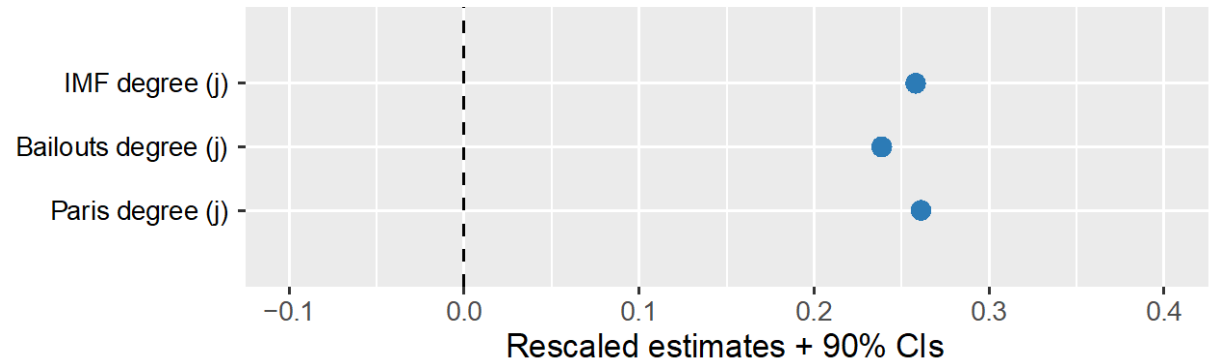
IMF Loans Equation



Paris Club Equation

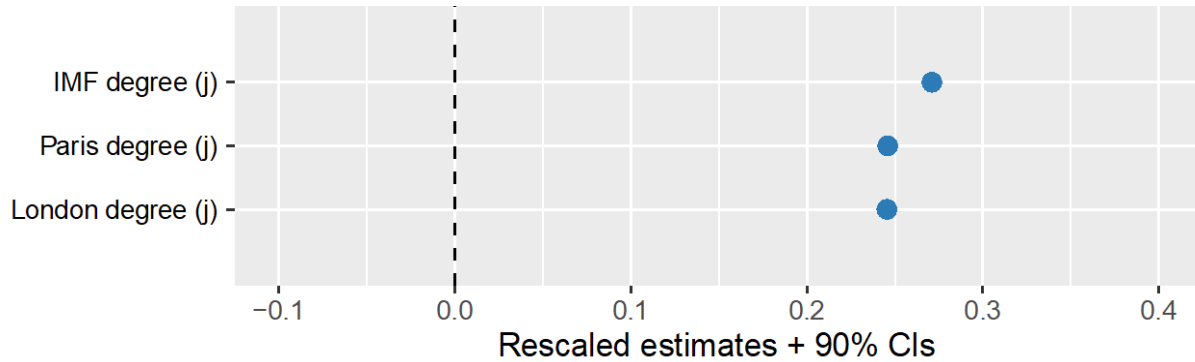


London Club Equation

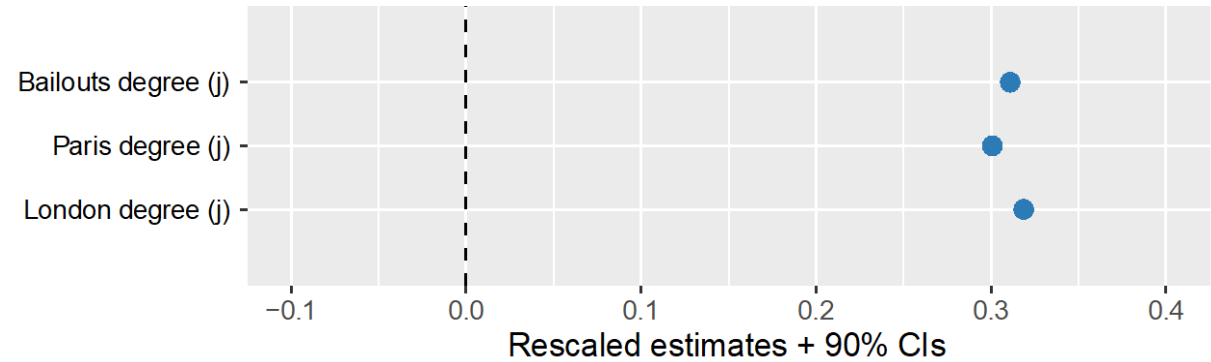


Main Results (IMF conditionality)

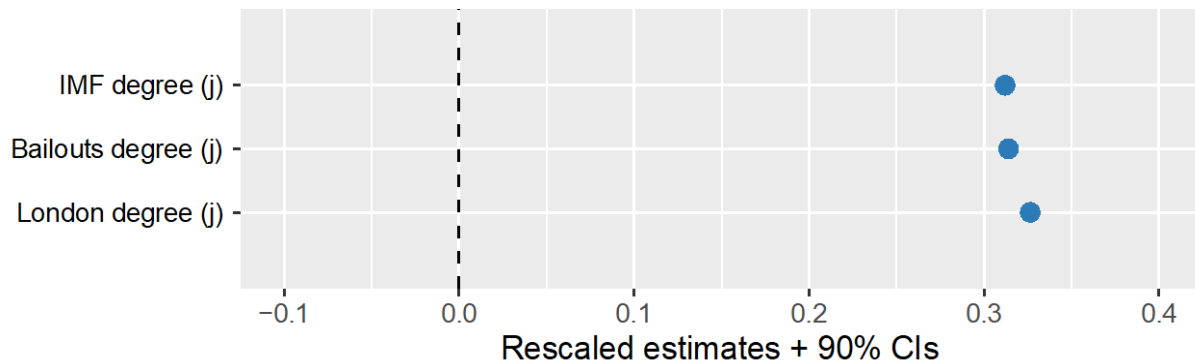
Bailouts Equation



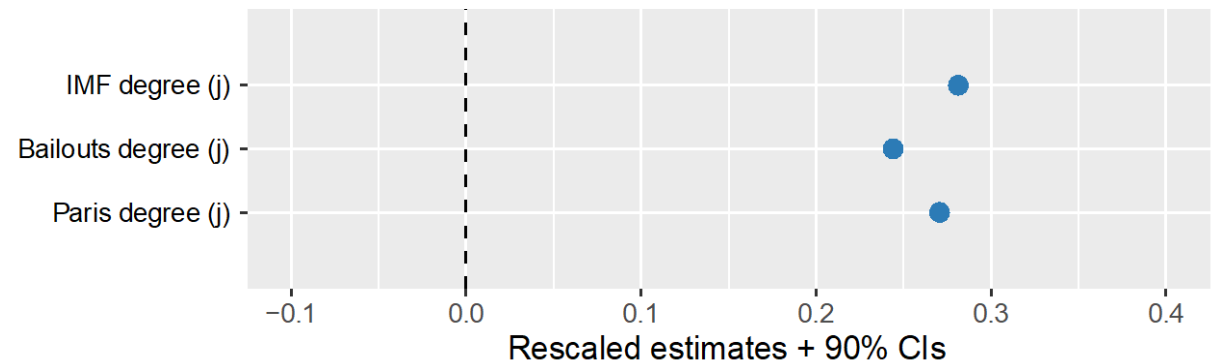
IMF Conditional Loans Equation



Paris Club Equation



London Club Equation



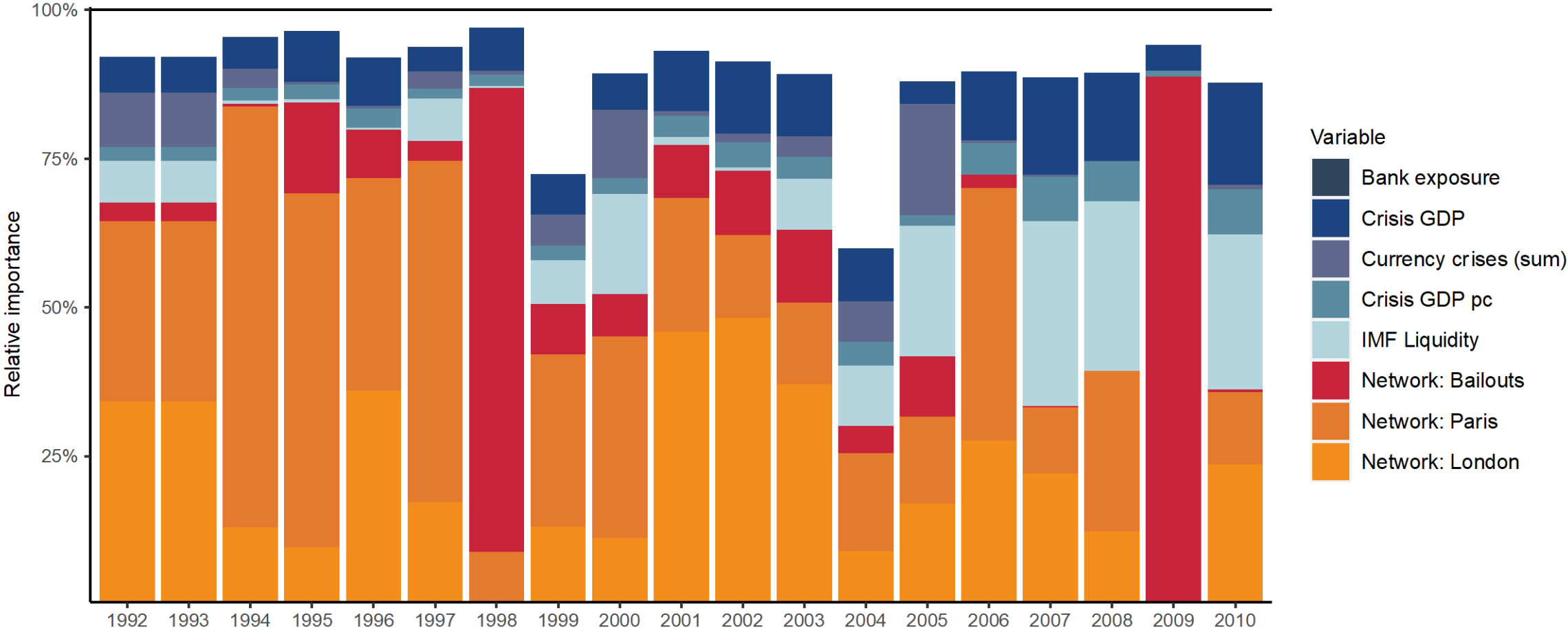
Summary

- Evidence of creditor coordination during financial crises.
- Creditor decisions are mutually reinforcing *across all creditor groups*.
- Contributions
 - Understand the complex nature of international cooperation during financial crisis resolution
 - Interdependencies across creditor groups to understand creditor decision-making
 - Complexities in international cooperation in other areas (civil conflict, economic development, etc)
- Next steps:
 - Integrate new data
 - Continuous DVs for non-network analysis

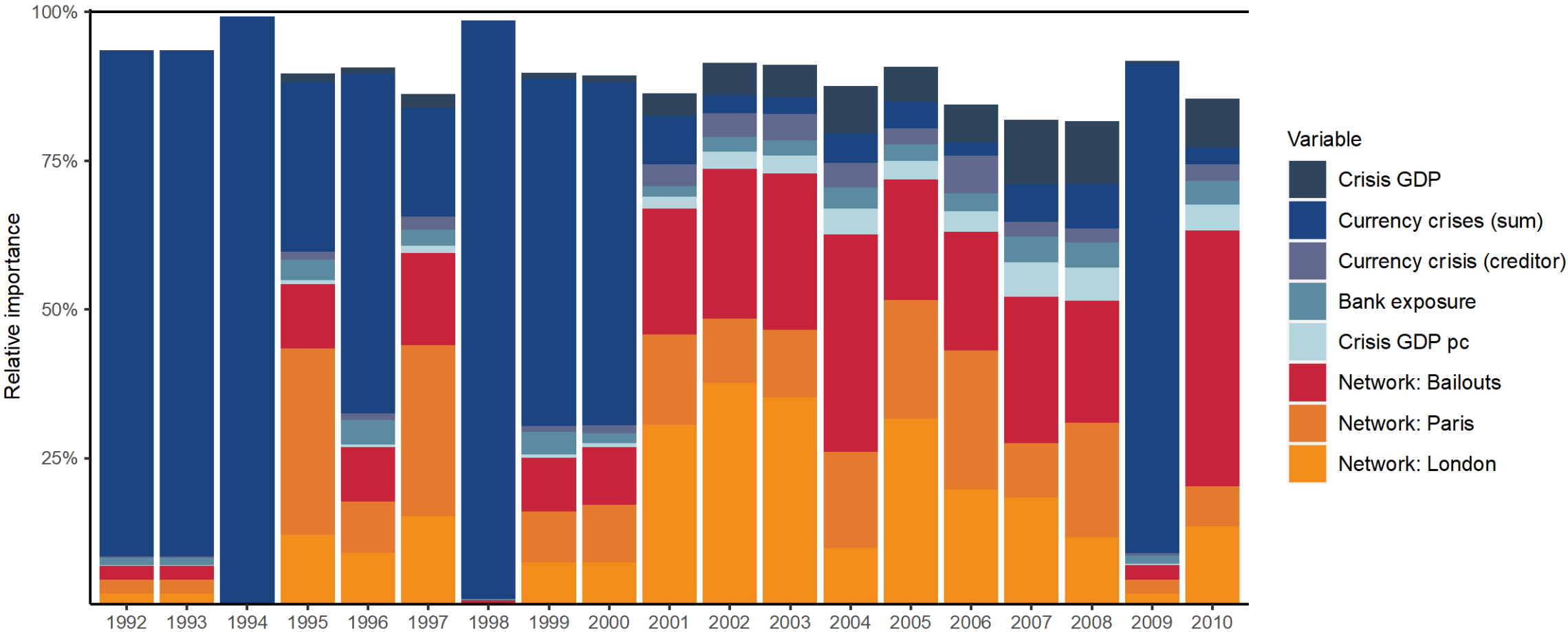
Appendix slides

1. Panel view of all coordination over time
2. Relative Importance for Bailouts, Paris Club, and London Club network models
3. Full SAOM model results for both IMF loans and IMF conditionality networks, including all covariates
4. Logit models with and without network effects

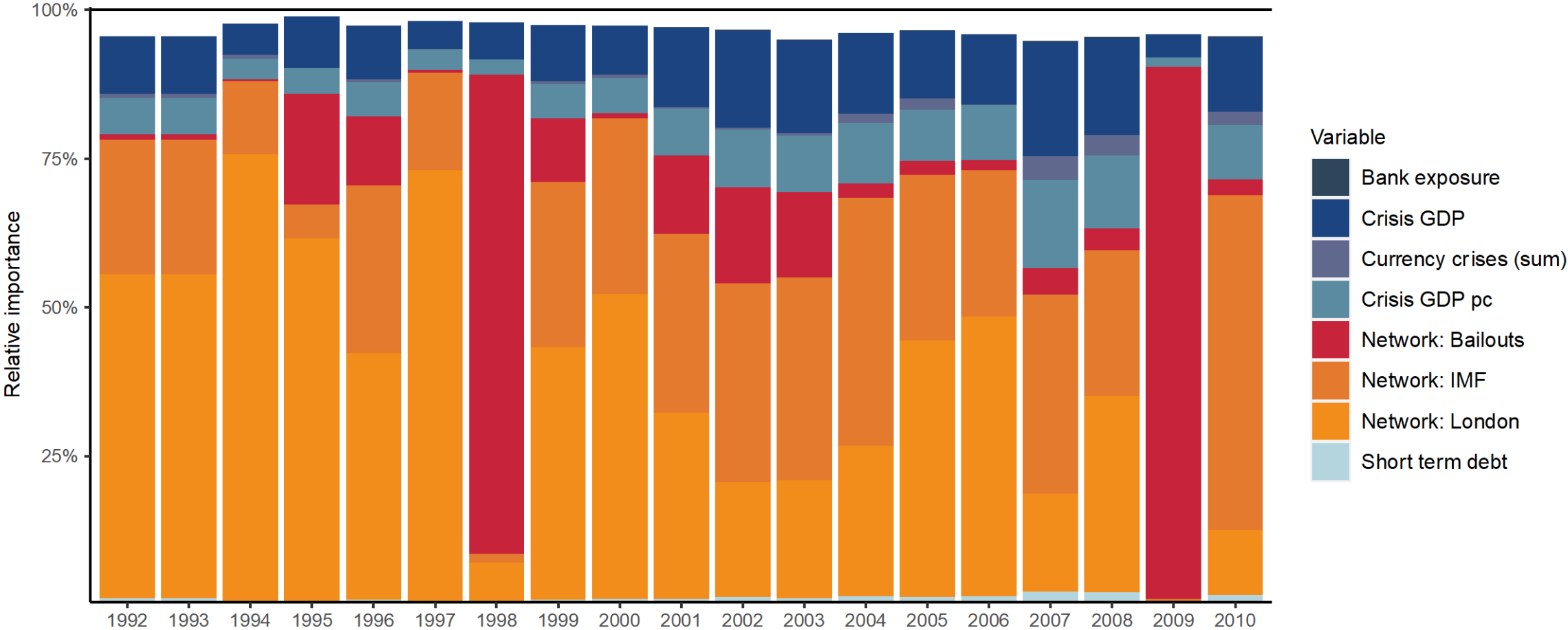
Relative importance – IMF network



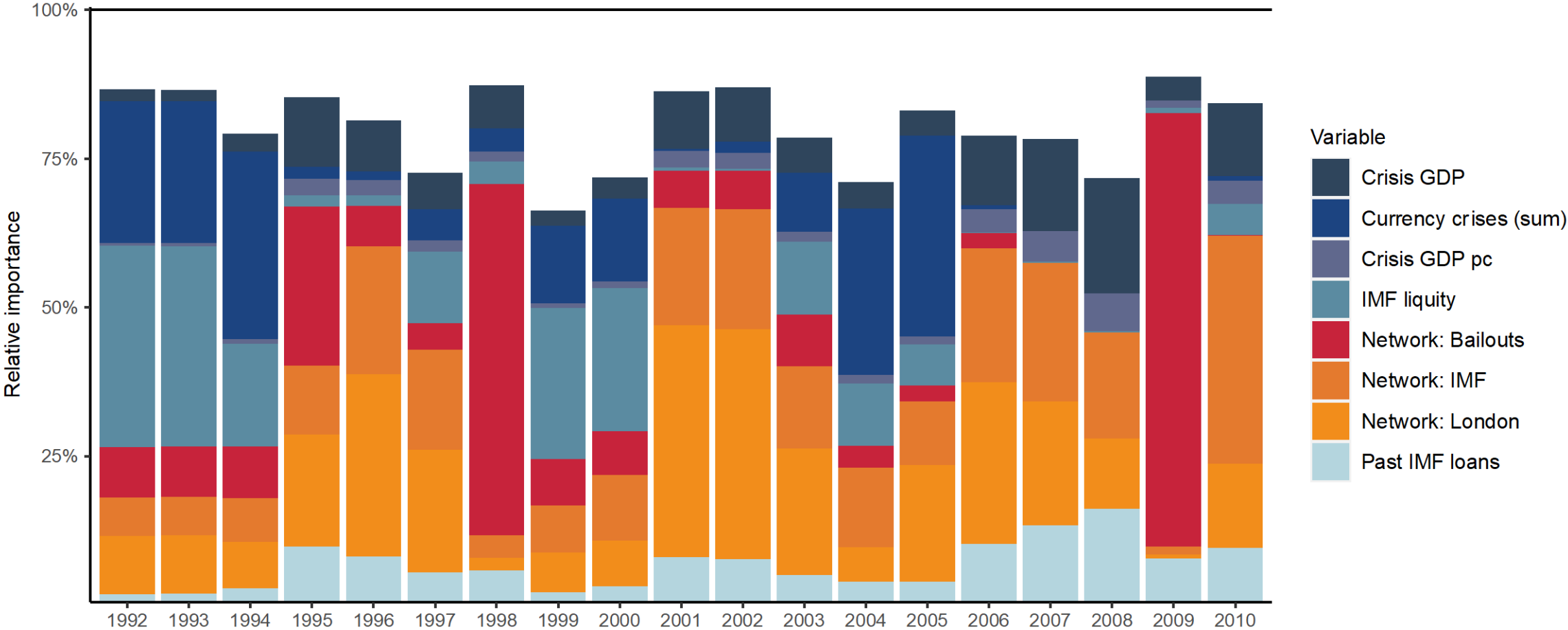
Relative importance – Bailout network



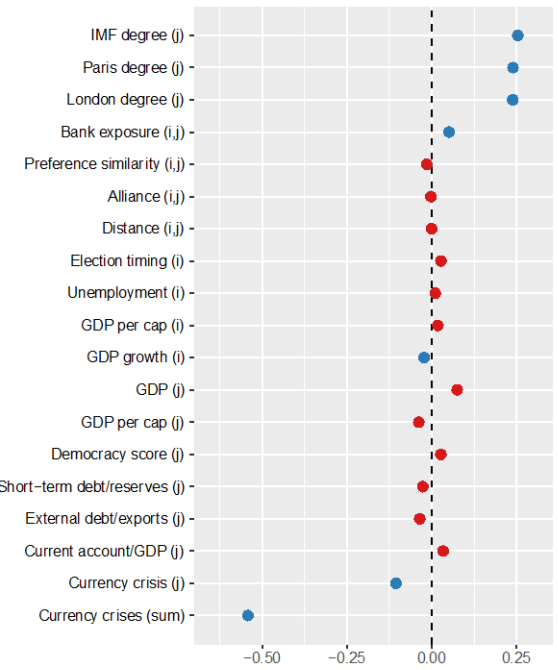
Relative importance – Paris Club



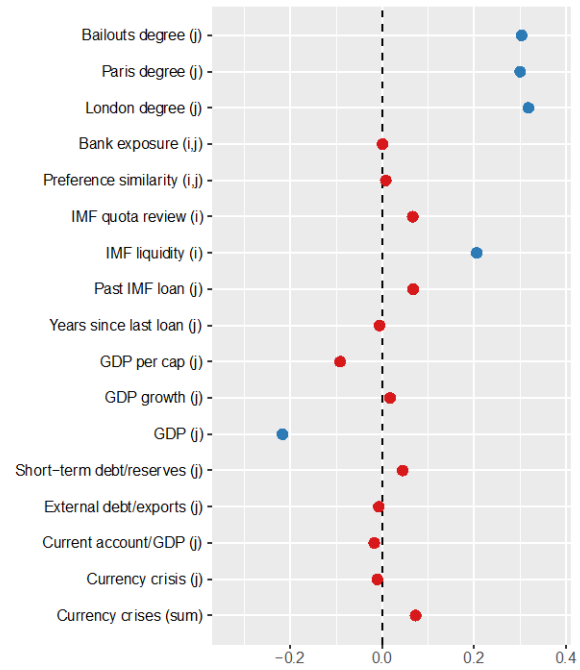
Relative importance – London Club



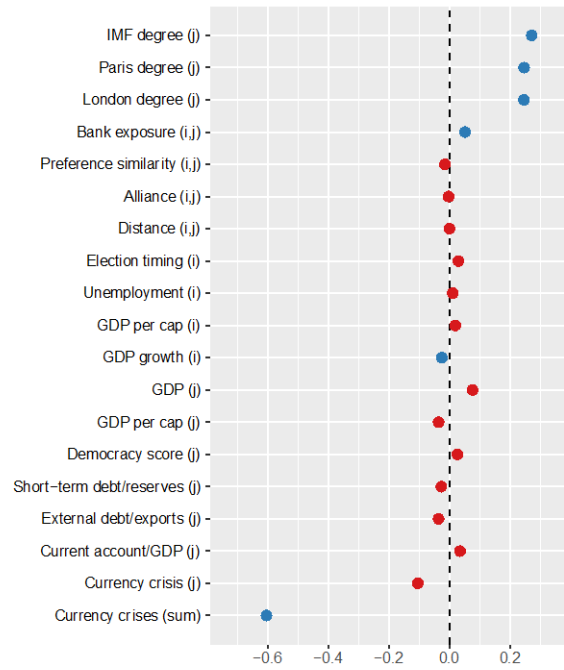
Bailouts Equation



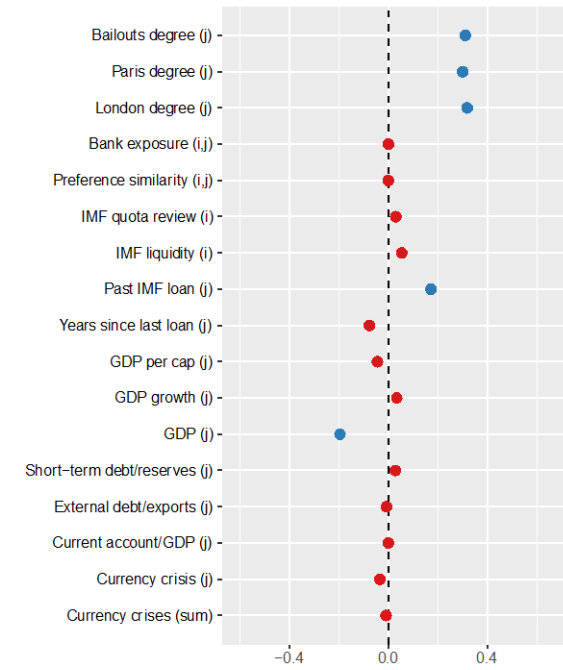
IMF loans Equation



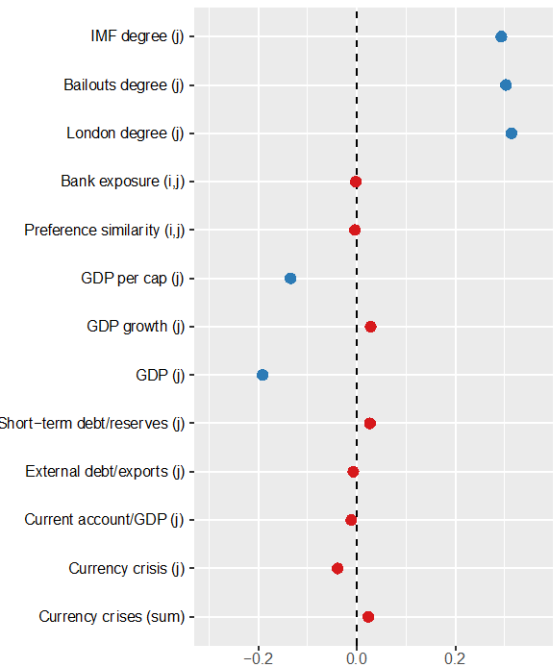
Bailouts Equation



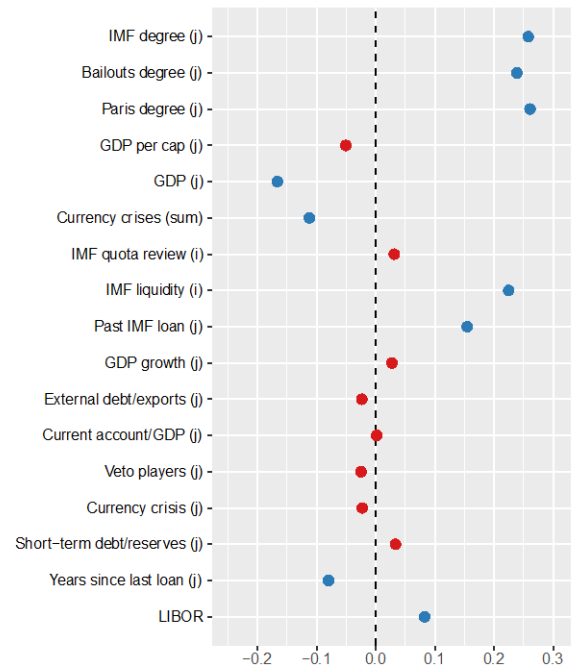
IMF conditional loans Equation



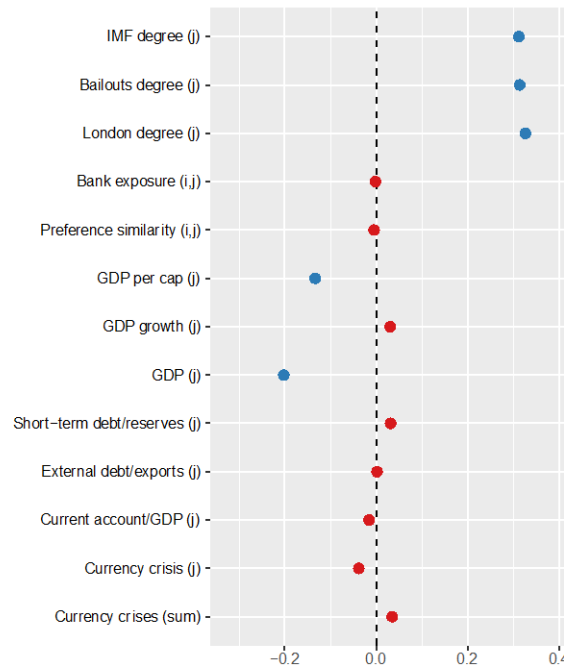
Paris Club Equation



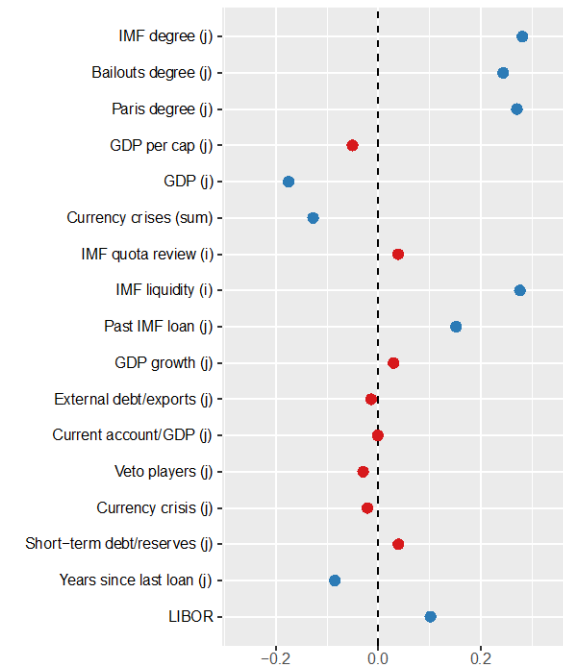
London Club Equation



Paris Club Equation



London Club Equation



	<i>Dependent variable:</i>		
	Bilateral Loan	IMF Loan	Paris Club
	(1)	(2)	(3)
Constant	17.11 (20.92)	-2.19* (0.87)	-3.46*** (0.95)
Bank exposure (i,j)	0.73** (0.28)	0.00 (0.00)	-0.00 (0.00)
Preference similarity (i,j)	0.37 (0.48)	-0.32*** (0.09)	0.13 (0.18)
Alliance (i,j)	1.00 (1.08)		
Distance (i,j)	-0.45 (0.61)		
Election timing (i)	-0.79 (0.77)		
Unemployment (i)	-0.48** (0.16)		
GDP per cap (i)	-2.87 (1.90)		
GDP growth (i)	-0.00 (0.20)		
GDP (j)	1.10* (0.56)	-0.08* (0.04)	-0.09 (0.07)
GDP per cap (j)	-0.65 (0.56)	-0.11 (0.06)	-0.33** (0.10)
Democracy score (j)	0.22 (0.96)		
Short-term debt/reserves (j)	1.79*** (0.50)	-0.02 (0.03)	0.17** (0.06)
External debt/exports (j)	-1.47* (0.62)	0.29*** (0.08)	0.29* (0.13)
Current account/GDP (j)	-0.08 (0.12)	0.00 (0.01)	-0.00 (0.01)
Currency crisis (j)	2.73** (0.95)	-0.05 (0.19)	0.47 (0.32)
Currency crises (sum)	0.02 (0.07)	-0.00 (0.01)	0.00 (0.01)
IMF quota review (i)		0.23* (0.11)	
IMF liquidity (i)		-0.03 (0.08)	
Years since last loan (j)		2.71*** (0.40)	
Past IMF loan (j)		-0.18*** (0.02)	
GDP growth (j)		-0.01 (0.01)	0.00 (0.02)
IMF degree (j)	1.11 (0.72)		2.03*** (0.24)
Paris degree (j)	-16.45 (1648.69)	0.84*** (0.14)	
Bilateral loan degree (j)		0.78** (0.29)	-13.34 (512.99)
Num. obs.	11741	2970	2970

	<i>Dependent variable:</i>		
	Bilateral Loan	IMF Loan	Paris Club
	(1)	(2)	(3)
IMF degree (j)	1.11 (0.72)		2.03*** (0.24)
Paris degree (j)	-16.45 (1648.69)	0.84*** (0.14)	
Bilateral loan degree (j)		0.78** (0.29)	-13.34 (512.99)

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

	<i>Dependent variable:</i>			
	Bilateral Loan <i>Logit</i>	IMF Loan <i>Logit</i>	IMF Loans (logged) <i>OLS</i>	Paris Club <i>Logit</i>
Constant	18.91 (11.45)	-1.34 (2.20)	1.54** (0.57)	-1.06 (1.39)
Bank exposure (i,j)	0.79** (0.26)	-0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)
Preference similarity (i,j)	0.38 (0.41)	-0.31 (0.23)	-0.35*** (0.07)	-0.19 (0.27)
Alliance (i,j)	1.02 (1.16)			
Distance (i,j)	-0.50 (0.70)			
Election timing (i)	-1.02 (0.74)			
Unemployment (i)	-0.47*** (0.14)			
GDP per cap (i)	-2.95** (1.09)			
GDP growth (i)	0.08 (0.20)			
GDP (j)	0.94* (0.44)	-0.14 (0.07)	0.10*** (0.03)	-0.09 (0.07)
GDP per cap (j)	-0.69 (0.44)	-0.01 (0.15)	-0.08 (0.04)	-0.44** (0.15)
Democracy score (j)	0.30 (0.99)			
Short-term debt/reserves (j)	1.75*** (0.39)	-0.12** (0.05)	0.02 (0.02)	0.13 (0.08)
External debt/exports (j)	-1.38** (0.50)	0.22* (0.09)	0.23*** (0.05)	0.48*** (0.12)
Current account/GDP (j)	-0.12 (0.11)	0.00 (0.01)	0.00 (0.01)	-0.00 (0.02)
Currency crisis (j)	2.93** (1.01)	-0.17 (0.16)	0.10 (0.13)	0.26 (0.38)
Currency crises (sum)	0.02 (0.06)	-0.00 (0.01)	0.00 (0.01)	0.01 (0.01)
IMF quota review (i)		0.05 (0.07)	0.11 (0.08)	
IMF liquidity (i)		-0.23* (0.10)	-0.14* (0.06)	
Years since last loan (j)		2.46 (1.44)	0.99*** (0.15)	
Past IMF loan (j)		0.00 (0.01)	-0.08*** (0.01)	
GDP growth (j)		-0.00 (0.01)	-0.03*** (0.01)	0.01 (0.02)
Num. obs.	11741	2970	2970	2970
Num. clust.	1085	186		186

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$