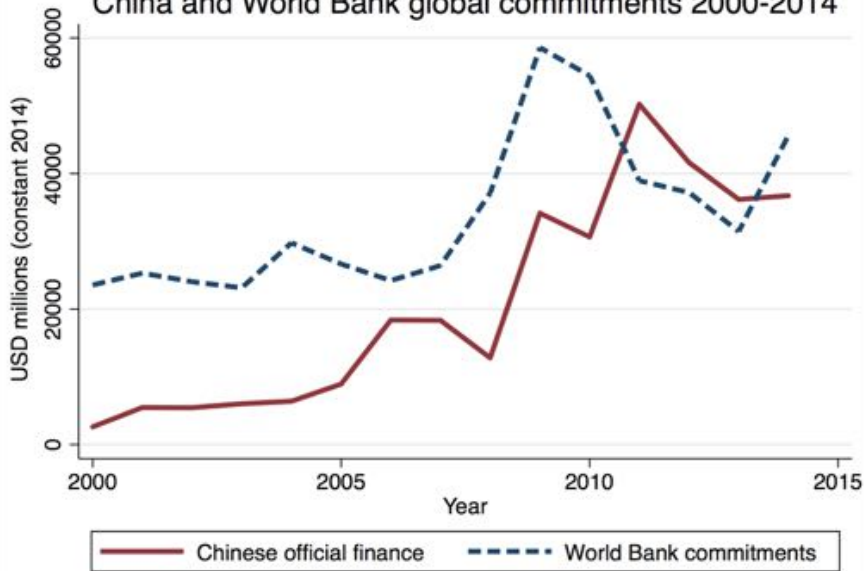


China: A growing competitor in development finance



China and World Bank global commitments 2000-2014



China: Shaping global models of development?

"China is seeking to export its development model to other countries...China's development model is **different from the one currently fashionable in the West**. It is based on **massive** state-led investments in **infrastructure** - roads, ports, electricity, railways and airports - that facilitate industrial development...

The big question for the future of global politics is straightforward:
Whose model will prevail?"

Fukuyama (2016)

Research question

Is competition with China changing the **type** of development projects the World Bank finances in developing countries?

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World Bank could choose to either **emulate** or **differentiate** itself from China in response to competition

Finding: The World Bank appears to **differentiate**, distinguishing its approach from China in response to competition

The effects of donor competition

Donors are competing for access to recipient governments

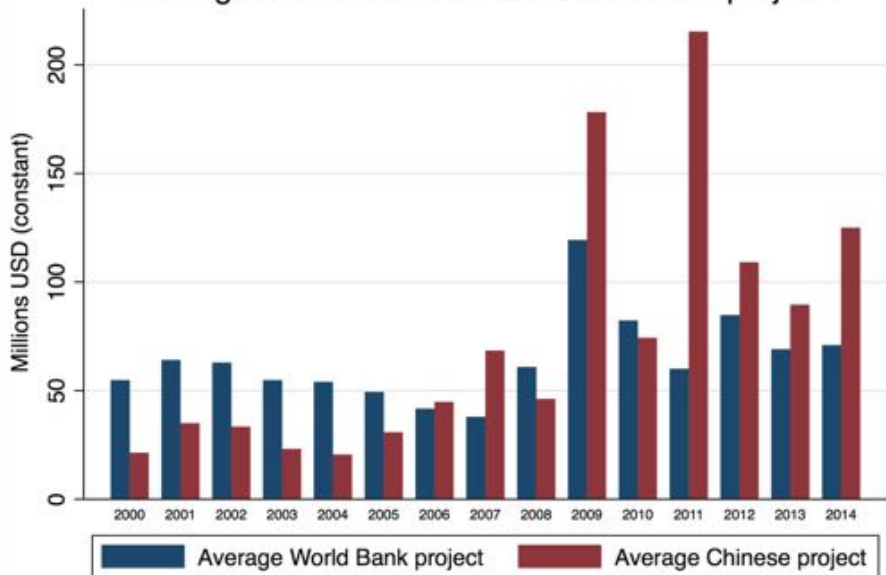
Existing research on donor competition has considered how donor competition affects:

- The **amount** of aid that donors provide (Barthel et al., 2014; Bueno de Mesquita & Smith, 2016; Kim et al. 2017)
- The **conditions** that donors attach to aid (Hernandez 2017)

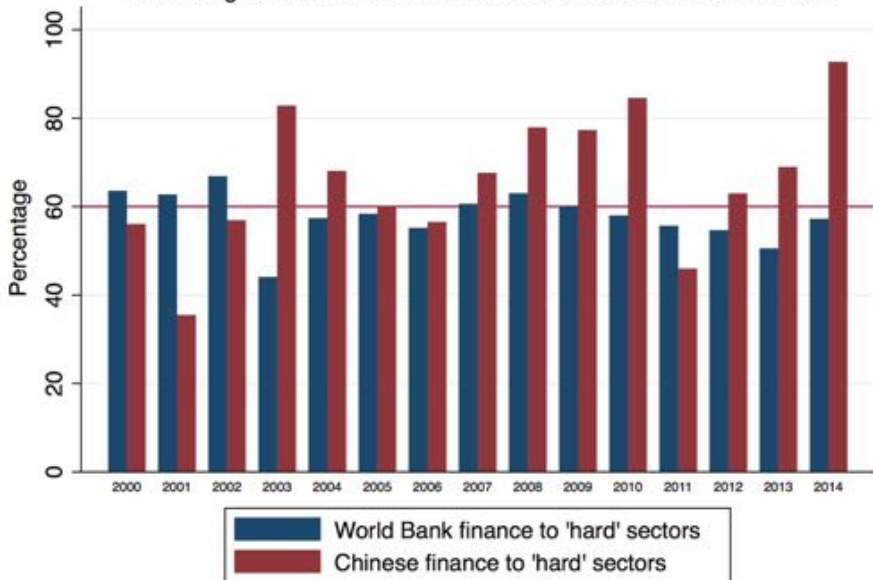
Competitive pressure of Chinese finance also stems from financing **different types** of development projects. Chinese projects tend to be:

- Large
- Targeted at infrastructure
- Executed quickly

Average size of World Bank and Chinese projects



Percentage of World Bank and Chinese finance to 'hard' sectors



Argument: Donor response to competition

Recipient preferences shape outcome of competition. Recipients prefer:

- Projects with domestic political pay-offs
- But, may also want a diversification of aid projects

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- Most immediate tactic to retain "market share"
- World Bank best placed among traditional donors
- Growing emphasis on "economic transformation" provides justification

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Incentives to differentiate:

- Not enough resources at the country level to mimic approach
- Comparative advantage in social sectors and advisory services

Heterogeneity in the effects of competition

Effects of competition are unlikely to be the same across recipient countries, since

- Donors care more about access to some recipients than others
- Some recipients are better at managing competition in their interest

Data

Panel covering 131 countries, 2000-2014

Dependent variables

- Average size of World Bank projects (logged)
- Percent of World Bank projects in infrastructure-intensive sectors

Independent variable

- Chinese official finance commitments (logged and lagged) (AidData's Global Chinese Official Finance Dataset, see Dreher et al. 2017)

Interaction terms

- Strategic significance: Above the sample mean of US military assistance
- Political consolidation: Above the sample mean of legislative victory margin

Controls: External Debt (% of GDP), Investment (%GDP), GDP per capita (logged), Population (logged), UN Security Council seat, active IMF program, election year (lagged)

Model: OLS with year- and country-fixed effects and standard errors clustered by country.

Results: Project size

	Project size				
	(1)	(2)	(3)	(4)	(5)
Chinese finance (log and lagged)	-0.0634* (0.0366)	-0.0486* (0.0292)	-0.0350* (0.0186)	-0.0338* (0.0191)	0.157 (0.251)
Population (log)	0.491*** (0.0579)	0.468*** (0.0396)	0.166 (0.405)	-1.347** (0.625)	-1.581** (0.644)
IMF program	0.248** (0.120)	0.333*** (0.120)	0.106 (0.0796)	0.174** (0.0819)	0.217* (0.115)
External debt (in percent of GDP)	0.00909 (0.146)				
Investment (in percent of GDP)	-0.00318 (0.00673)				
GDP per capita (log)	0.131 (0.0837)				
Temporary UNSC member	0.288 (0.217)				
Election (lagged)	0.0431 (0.0923)				
Observations	740	1,446	1,446	1,446	1,446
R-squared	0.269	0.276	0.580	0.597	0.548
Country FE	NO	NO	YES	YES	YES
Year FE	NO	NO	NO	YES	YES
Instrumented	NO	NO	NO	NO	YES
Nr. of countries	102	131	131	131	131

Robust standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Results: Sector allocation

	Share of WB projects in "hard" sectors				
	(1)	(2)	(3)	(4)	(5)
Chinese finance (log and lagged),	0.00306 (0.00373)	0.00301 (0.00283)	0.00187 (0.00299)	0.00118 (0.00310)	0.0535 (0.0406)
Population (log)	0.0265*** (0.00558)	0.0131*** (0.00500)	0.0380 (0.0888)	0.00601 (0.155)	-0.0485 (0.182)
IMF program	0.0653*** (0.0194)	0.0598*** (0.0146)	0.0518*** (0.0170)	0.0516*** (0.0178)	0.0612*** (0.0215)
External debt (in percent of GDP)	0.00295 (0.0112)				
Investment (in percent of GDP)	0.000800 (0.000770)				
GDP per capita (log)	0.00525 (0.0106)				
Temporary UNSC member	0.0416 (0.0336)				
Election (lagged) = L,	-0.0194 (0.0198)				
Observations	740	1,437	1,437	1,437	1,347
R-squared	0.053	0.031	0.208	0.214	0.043
Country FE	NO	NO	YES	YES	YES
Year FE	NO	NO	NO	YES	YES
Instrumented	NO	NO	NO	NO	YES
Nr. of countries	102	131	131	131	131

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Results: Heterogeneity

	Project size		Hard sectors	
	(1)	(2)	(3)	(4)
Chinese finance (log and lagged)	-0.0544* (0.0324)	0.0236 (0.0439)	-0.00212 (0.00456)	-0.00591 (0.00562)
Chinese finance (log and lagged) * Strategic			0.00206 (0.0110)	
Strategic			0.0341 (0.0614)	
Chinese finance (log and lagged) * Pol consolidation		-0.128** (0.0537)		0.00665 (0.00783)
Pol consolidation		0.440** (0.179)		-0.0267 (0.0256)
Controls	X	X	X	X

Conclusion

Find that WB is **differentiating** the size of its projects in response Chinese to development finance

Find no effect for sectoral allocation. Suggests smaller projects in same sectors, maybe technical advisory projects?

Differentiation is more pronounced where governments have a more secure grasp on power and therefore are able to negotiate more assertively.

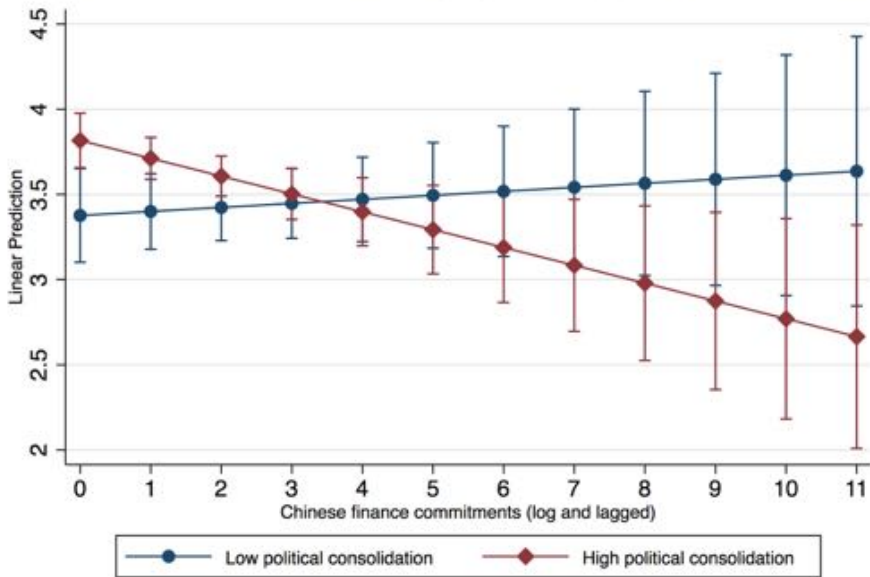
Implications: China's entry does not (yet) seem to be reshaping development practices in line with its own development model. Instead, China's entry seems to **encourage specialization**.

Thank you!

Alexandra Zeitz
University of Oxford
alexandra.zeitz@politics.ox.ac.uk

Appendix

Marginal effect of Chinese finance on project size, by political consolidation



By levels of concessionality: Annual commitments

	Annual commitments					
	(1) Total	(2) Total	(3) IDA	(4) IDA	(5) IBRD	(6) IBRD
All Chinese finance (lagged and logged)	-0.0181 (0.0505)	0.0236 (0.0323)				
Chinese ODA (lagged and logged)			0.118** (0.0534)	0.00930 (0.0420)		
Chinese OF (lagged and logged)					-0.137** (0.0560)	-0.0286 (0.0305)
External debt (percent of GDP)	0.0418 (0.108)	-0.0753 (0.296)	-0.556*** (0.104)	-0.227 (0.238)	0.609*** (0.150)	0.233 (0.161)
Investment (percent of GDP)	0.00590 (0.00790)	0.00413 (0.0116)	0.0253 (0.0159)	0.00934 (0.0121)	-0.0103 (0.0138)	-0.0114 (0.0128)
GDP per capita (logged current USD)	0.177* (0.103)	0.352 (0.419)	-1.613*** (0.113)	0.0608 (0.315)	1.830*** (0.134)	0.724 (0.639)
Population (logged)	0.754*** (0.0740)	-1.746 (1.865)	0.195 (0.118)	1.801 (1.842)	0.852*** (0.127)	-4.279** (1.984)
On UNSC	0.373 (0.262)	0.117 (0.193)	0.120 (0.256)	-0.0227 (0.131)	0.257 (0.319)	0.356* (0.192)
IMF program	0.724*** (0.163)	0.258* (0.137)	0.530** (0.215)	0.0753 (0.128)	-0.106 (0.202)	0.103 (0.113)
Election year (lagged)	-0.00796 (0.120)	-0.0719 (0.108)	0.103 (0.120)	0.00765 (0.0917)	-0.117 (0.113)	-0.0964 (0.0828)
Observations	740	740	740	740	740	740
R-squared	0.366	0.694	0.513	0.849	0.612	0.892
Country FE	NO	YES	NO	YES	NO	YES
Year FE	YES	YES	YES	YES	YES	YES
Nr. of countries	102	102	102	102	102	102

Robust standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

By levels of concessionality: Project Size

	Project Size					
	(1) Total	(2) Total	(3) IDA	(4) IDA	(5) IBRD	(6) IBRD
All Chinese finance (lagged and logged)	-0.0306 (0.0375)	-0.00649 (0.0244)				
Chinese ODA (lagged and logged)			0.0921** (0.0414)	0.00236 (0.0340)		
Chinese OF (lagged and logged)					-0.120*** (0.0450)	-0.0397 (0.0244)
External debt (percent of GDP)	-0.00470 (0.0990)	0.0496 (0.228)	-0.416*** (0.0762)	-0.146 (0.195)	0.477*** (0.119)	0.197 (0.137)
Investment (percent of GDP)	0.000903 (0.00635)	-0.00112 (0.0102)	0.0182 (0.0121)	0.00824 (0.0112)	-0.00700 (0.0115)	-0.00601 (0.0105)
GDP per capita (logged current USD)	0.204** (0.0834)	0.404 (0.347)	-1.282*** (0.0837)	0.00583 (0.264)	1.509*** (0.107)	0.704 (0.550)
Population (logged)	0.494*** (0.0575)	-3.225** (1.613)	0.106 (0.0887)	0.556 (1.571)	0.665*** (0.0997)	-3.612** (1.623)
On UNSC	0.219 (0.206)	0.0539 (0.179)	0.100 (0.193)	-0.0417 (0.121)	0.169 (0.271)	0.292* (0.175)
IMF program	0.436*** (0.129)	0.213* (0.116)	0.350** (0.162)	0.0760 (0.108)	-0.147 (0.167)	0.0956 (0.102)
Election year (lagged)	0.0533 (0.0893)	0.0138 (0.0799)	0.0902 (0.0922)	0.0237 (0.0692)	-0.0908 (0.0940)	-0.0832 (0.0669)
Observations	740	740	740	740	740	740
R-squared	0.309	0.648	0.521	0.844	0.597	0.875
Country FE	NO	YES	NO	YES	NO	YES
Year FE	YES	YES	YES	YES	YES	YES
Nr. of countries	102	102	102	102	102	102

Robust standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

By levels of concessionality: Share in "hard" sectors

	Share in "hard" sectors								
	(1) Total	(2) Total	(3) Total	(4) IDA	(5) IDA	(6) IDA	(7) IBRD	(8) IBRD	(9) IBRD
All Chinese finance (lag and log)	0.00217 (0.00515)	0.00113 (0.00556)	0.000392 (0.00727)						
Chinese ODA (lag and log)				0.0183** (0.00770)	0.0104 (0.00788)	0.00481 (0.00968)			
Chinese OF (lag and log)							-0.0145** (0.00628)	-0.0109* (0.00647)	-0.00594 (0.00523)
External debt (% of GDP)	0.00242 (0.0181)	0.00419 (0.0184)	0.00167 (0.0544)	-0.0503*** (0.0191)	-0.0452*** (0.0170)	-0.0528 (0.0457)	0.0452** (0.0178)	0.0422*** (0.0152)	0.0156 (0.0222)
Investment (% of GDP)	0.000884 (0.00115)	0.00102 (0.00117)	-0.000906 (0.00182)	0.00229 (0.00176)	0.00203 (0.00177)	0.00259 (0.00226)	3.89e-05 (0.00152)	0.000358 (0.00156)	-0.000821 (0.00175)
GDP per capita (log)	0.00617 (0.0154)	0.00472 (0.0157)	0.0360 (0.0786)	-0.152*** (0.0161)	-0.168*** (0.0173)	0.0317 (0.0722)	0.147*** (0.0165)	0.155*** (0.0172)	-0.0457 (0.0996)
Population (log)	0.0120 (0.00847)	0.0128 (0.00866)	0.0188 (0.490)	-0.0235* (0.0119)	-0.0240** (0.0119)	0.415 (0.494)	0.0638*** (0.0164)	0.0635*** (0.0167)	-0.479 (0.420)
On UNSC	0.0593 (0.0500)	0.0590 (0.0496)	0.0625 (0.0573)	-0.00157 (0.0477)	0.0109 (0.0467)	0.00201 (0.0432)	0.0181 (0.0493)	0.0120 (0.0488)	0.0595 (0.0509)
IMF program	0.0515* (0.0272)	0.0575* (0.0294)	0.0648 (0.0408)	0.101*** (0.0323)	0.0817** (0.0344)	0.0115 (0.0405)	-0.0336 (0.0251)	-0.0163 (0.0270)	0.0438 (0.0299)
Election year (lagged)	-0.0222 (0.0289)	-0.0214 (0.0293)	-0.0333 (0.0326)	0.0112 (0.0260)	0.0112 (0.0275)	9.60e-05 (0.0296)	-0.0197 (0.0226)	-0.0200 (0.0227)	-0.0258 (0.0201)
Observations	740	740	740	740	740	740	740	740	740
R-squared	0.013	0.019	0.183	0.232	0.251	0.477	0.286	0.294	0.567
Country FE	NO	NO	YES	NO	NO	YES	NO	NO	YES
Year FE	NO	YES	YES	NO	YES	YES	NO	YES	YES
Nr. of countries	102	102	102	102	102	102	102	102	102

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

By levels of concessionality: Interaction effects

	Project Size					
	(1) Total	(2) Total	(3) IDA	(4) IDA	(5) IBRD	(6) IBRD
All Chinese finance (lagged and logged)	-0.0191 (0.0329)	-0.0453 (0.0457)				
Chinese ODA (lagged and logged)			0.103** (0.0422)	0.0808 (0.0694)		
Chinese OF (lagged and logged)					-0.119** (0.0496)	-0.183* (0.0979)
Significant	0.604** (0.234)		-0.953** (0.365)		1.347*** (0.374)	
Significant*All Chinese finance	-0.185 (0.140)					
Significant*Chinese ODA			0.129 (0.159)			
Significant*Chinese OF					-0.147 (0.0938)	
Political consolidation		0.157 (0.303)		0.347 (0.307)		0.154 (0.392)
Political consolidation*All Chinese finance		0.0430 (0.0593)				
Political consolidation*Chinese ODA				0.0899 (0.0868)		
Political consolidation*Chinese OF						0.142 (0.113)
Controls	YES	YES	YES	YES	YES	YES
Observations	740	451	740	451	740	451
R-squared	0.314	0.315	0.520	0.597	0.594	0.613
Country FE	NO	NO	NO	NO	NO	NO
Year FE	YES	YES	YES	YES	YES	YES
Nr. of countries	102	60	102	60	102	60

By levels of concessionality: Interaction effects

	Share in "hard" sectors					
	(1) Total	(2) Total	(3) IDA	(4) IDA	(5) IBRD	(6) IBRD
All Chinese finance (lagged and logged)	0.00258 (0.00565)	-0.00832 (0.0104)				
Chinese ODA (lagged and logged)			0.0134 (0.00826)	0.0226 (0.0136)		
Chinese OF (lagged and logged)					-0.00960 (0.00699)	-0.0208** (0.0101)
Significant	0.0159 (0.0355)		-0.0923* (0.0493)		0.123 (0.0767)	
Significant*All Chinese finance	-0.0203* (0.0103)					
Significant*Chinese ODA			-0.0143 (0.0196)			
Significant*Chinese OF					-0.0253 (0.0158)	
Political consolidation		-0.0702 (0.0454)		0.0402 (0.0552)		0.0174 (0.0562)
Political consolidation*All Chinese finance		0.0210* (0.0119)				
Political consolidation*Chinese ODA				0.000209 (0.0185)		
Political consolidation*Chinese OF						0.0220 (0.0138)
Controls	YES	YES	YES	YES	YES	YES
Observations	740	451	740	451	740	451
R-squared	0.021	0.058	0.258	0.310	0.297	0.299
Country FE	NO	NO	NO	NO	NO	NO
Year FE	YES	YES	YES	YES	YES	YES
Nr. of countries	102	60	102	60	102	60

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1