

# China as a Sovereign Creditor: Geopolitical Rivalry

Paris Club Restructurings and Debt Sustainability Analyses

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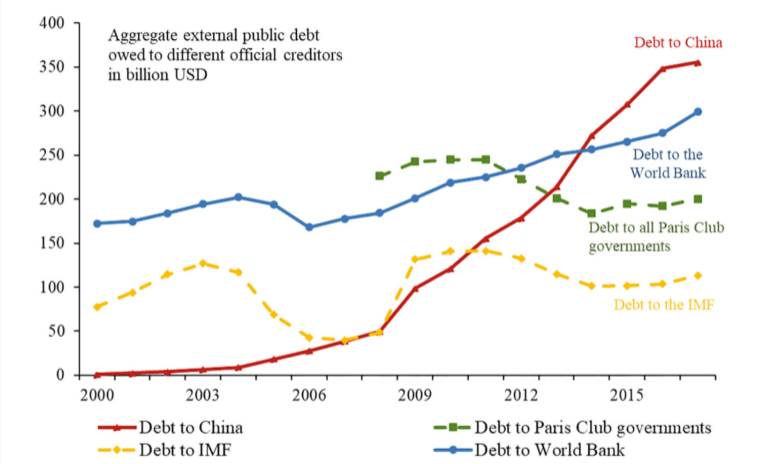


B. Peter Rosendorff (NYU)

Fund for Research on China (FRC) Inaugural Symposium

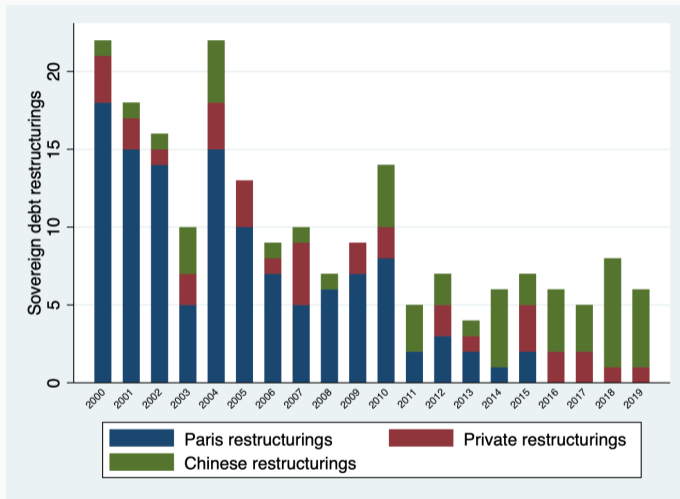
April 2025

# Rise of Chinese Finance



Source: Horn, Reinhart & Trebesch (2021) "China's Overseas Lending"

# Sovereign Restructurings



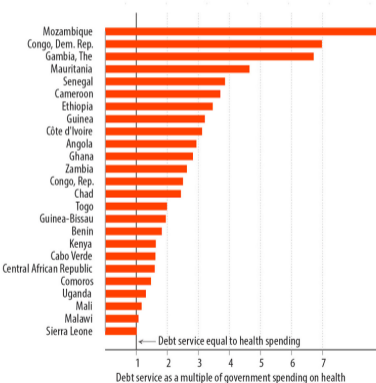
Source: Horn, Reinhart & Trebesch (2022) "Hidden Defaults"

# Debt Service or Health?

Chart 1

## Neither healthy nor wealthy

A number of sub-Saharan African countries spend more on debt servicing than on health.



Source: World Health Organization; and World Bank, International Debt Statistics (<https://datatopics.worldbank.org/debt/ids/>).

# Paris Club Restructuring and the Rise of China

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# Paris Club Restructuring and the Rise of China

Joint work with Cameron Ballard-Rosa (UNC) and Layna Mosley (Princeton).

Governments with more debt to China → less likely to conclude Paris Club debt restructuring.

Heterogeneous effects:

- Stronger for countries *geopolitically* distant from the US.
- Debt to China matters for restructuring of *official*, but not of private sector, obligations.

# The Paris Club

- 1965: 11 creditor countries
- Today: 22 countries
  - 14 more ad hoc
- 479 agreements with 102 debtor countries

## China

- Ad hoc participant in PC
- Co-chaired the creditor committee for Zambia
- Declined invitations to join PC as full member.

- Development Finance: China International Development Cooperation Agency
  - Central government budget
- Stateowned policy banks: Export-Import Bank of China, China Development Bank
  - Major lenders
  - Issue bonds and take deposits
  - Commercial or Official?

## Dealing with Distress

- Paris Club creditors have offered principal reductions and other forms debt forgiveness
  - Intent is to restore debt sustainability
- China has been reluctant to reduce principal balances.
  - Instead emergency loans, swap lines
  - Extends terms, reducing payments.
- Moreover, Chinese loans
  - Some securitized
  - “No PC treatment” clauses
  - Seniority, equitable treatment issues made more complex
- Creditor heterogeneity and complex negotiations

- Primary DV: *Paris Club restructuring* 1980-2019
  - (from Horn, Reinhart & Trebesch 2022).
- Primary IV: *Chinese Debt/All External Debt* 2000-2017
  - (from Horn, Reinhart & Trebesch 2021).
- Non-OECD
- “Sparse” controls: *GDP per capita, GDP growth, Trade, Oil rents, FDI inflows*
- “Full” controls: *Foreign reserves (months of imports), Bilateral debt, Interest payment on external debt, IMF program, Debt currency concentration*
- standard errors clustered by country

## Estimation: Instrumental Variables

$$\overline{ChineseDebt(\%totaldebt)}_{i,t} = \gamma_1 Material_{t-2} \times p_{CHN,i} + \gamma_2 Reserves_{t-2} \times p_{CHN,i} \\ + \gamma_3 X_{i,t-1} + \mu_i + \epsilon_{i,t}$$

$$Restructuring_{it} = \beta \overline{ChineseDebt(\%totaldebt)}_{it-1} + \gamma X_{it-1} + \mu_i + f(t) + \epsilon_{it}$$

Shift-share instrument

- Six major construction inputs (aluminum, cement, glass, steel, iron, and timber)
- $Reserves_t$  changes in net foreign exchange reserves
- $p_{CHN,i}$ , the share of years in which  $i$  received positive amounts of Chinese development finance.

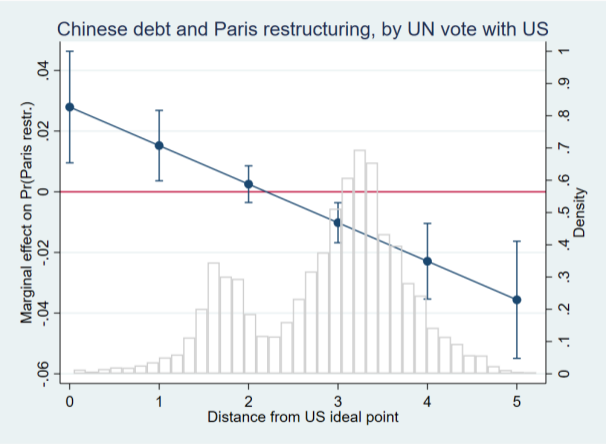
## Chinese Debt, PC Restructuring: Bivariate

	(1)	(2)	(3)
	Paris restr.	Private restr.	Chinese restr.
Chinese debt (% total external debt)	-0.012*** (0.002)	0.000 (0.001)	0.002 (0.001)
Observations	1,664	1,664	1,664
R-squared	0.026	0.000	0.002
Number of countries	99	99	99

*Notes:* Country fixed effects are suppressed for presentation. Robust standard errors clustered by country in parentheses.\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

# Chinese Debt and Paris Club Restructuring, with Controls

VARIABLES	(1) PC (OLS)	(2) PC (IV)	(3) PC (OLS)	(4) PC (IV)	(5) PC (OLS)	(6) PC (IV)
Chinese debt (% total external debt)	-0.007*** (0.003)	-0.022** (0.009)	-0.007** (0.003)	-0.032*** (0.010)	-0.009** (0.003)	-0.033*** (0.010)
GDP per capita (current US\$)	0.015*** (0.004)	0.011* (0.007)	0.019*** (0.005)	0.020** (0.008)	0.020*** (0.005)	0.020*** (0.007)
GDP growth (annual %)	-0.003* (0.002)	-0.003* (0.002)	-0.002 (0.002)	-0.003 (0.003)	-0.002 (0.002)	-0.002 (0.003)
Trade (% of GDP)	0.000 (0.000)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)
Oil rents (% of GDP)	-0.002 (0.002)	-0.004* (0.002)	-0.001 (0.002)	-0.004 (0.003)	-0.001 (0.002)	-0.004 (0.003)
Foreign direct investment (% of GDP)	-0.002** (0.001)	-0.003** (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Military expenditure (% of GDP)	-0.006 (0.009)	-0.004 (0.009)	-0.000 (0.014)	-0.009 (0.018)	0.002 (0.015)	-0.003 (0.019)
Foreign reserves (months of imports)			-0.001 (0.003)	-0.000 (0.003)	-0.001 (0.003)	-0.001 (0.003)
Interest payments (% of GNI)			0.016*** (0.004)	0.015*** (0.004)	0.016*** (0.005)	0.016*** (0.005)
IMF program			0.006 (0.014)	-0.000 (0.018)	0.002 (0.013)	-0.007 (0.018)
Population, total			0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Electoral democracy index					-0.083 (0.146)	-0.119 (0.188)
Presidential Election Held					-0.027* (0.015)	-0.025 (0.017)
Checks and Balances					0.006 (0.005)	0.005 (0.006)
Observations	1,303	1,135	1,027	896	994	870
R-squared	0.066	0.047	0.084	0.039	0.092	0.053
Number of countries	87	85	70	69	68	67
Weak ID F stat		65.8		49.1		41
Hansen J stat		.192		.006		.086



**Countries with more Chinese debt and geopolitically distant from the US are even less likely to get a PC deal**

## Geopolitics, by creditor type

VARIABLES	(1) Paris restr.	(2) Private restr.	(3) China restr.
Chinese debt (% total external debt)	0.028*** (0.009)	0.006 (0.010)	0.005 (0.013)
UN vote distance from US	-0.001 (0.032)	-0.006 (0.025)	-0.007 (0.037)
Chinese debt x UN vote distance from US	-0.013*** (0.004)	-0.002 (0.003)	-0.001 (0.004)
Controls	✓	✓	✓
Observations	1,026	1,026	1,026
R-squared	0.081	0.086	0.022
Number of countries	70	70	70

## **Geopolitical Influence at the WB/IMF: DSAs**

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# Debt Sustainability Analyses for Low-Income Countries

Joint work with Mengfan Cheng (NYUNY) and Sujeong Shim (NYUAD)

# Debt Sustainability Analyses for Low-Income Countries

- World Bank-IMF **Debt Sustainability Framework for Low-Income Countries** assesses debt risk for 78 countries
  - LIC-DSF review 2023-25
- Results in **Debt Sustainability Analysis (DSA)** reports
  - Shape risk perceptions
  - Precondition for restructuring efforts and access to conditional financing from IFIs

**Research Question: How does geopolitical influence affect DSAs?**



INTERNATIONAL MONETARY FUND

## KENYA

March 19, 2021

### REQUESTS FOR AN EXTENDED ARRANGEMENT UNDER THE EXTENDED FUND FACILITY AND AN ARRANGEMENT UNDER THE EXTENDED CREDIT FACILITY—DEBT SUSTAINABILITY ANALYSIS

#### Approved By

Annalisa Fedelino (IMF, AFR);  
Martin Kaufman (IMF, SPR);  
and Marcello Estevão (IDA)

Prepared by the staffs of the International Monetary Fund (IMF) and the International Development Association (IDA)

#### Joint Bank-Fund Debt Sustainability Analysis

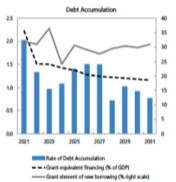
Risk of external debt distress	High
Overall risk of debt distress	High
Granularity in the risk rating	Sustainable
Application of judgment	No

*Kenya's debt is sustainable, and its debt dynamics will be bolstered by the fiscal consolidation envisaged under the IMF supported program. While planned fiscal consolidation will help address debt vulnerabilities exacerbated by the global COVID-19 shock, the risk of debt distress continues to be assessed as high. <sup>1</sup> High deficits—from the past and generated by the current shock—combined with the sharp decline in export and economic growth caused by the pandemic, have deteriorated solvency and liquidity debt indicators, particularly when measured against Kenya's current debt-carrying capacity (evaluated as medium).<sup>2</sup> Kenya's debt indicators will improve as fiscal consolidation progresses and exports and output recover from the global shock, although improvement is particularly gradual for indicators in terms of exports. Sustained fiscal consolidation*

**Table 1. Kenya: External Debt Sustainability Framework, Baseline Scenario, 2018–41**  
(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 17			
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Historical	Projections
<b>External debt (nominal) 1/</b>	11.5	14.1	16.7	19.8	20.9	21.1	20.9	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1
<b>of which public and publicly guaranteed (PPG)</b>	16.6	11.5	13.1	17.9	17.6	16.7	16.7	15.9	14.3	14.3	14.3	14.3	14.3	19.8	14.7
<b>Change in external debt</b>	3.6	2.8	4.4	0.9	1.3	0.2	-0.3	2.3	0.9	0.3	-0.5	-0.5	-0.5		
<b>Identified net debt-creating flows</b>	-4.7	0.6	2.5	6.8	1.8	1.5	1.5	1.5	1.4	1.3	2.0	3.5	1.3		
<b>Non-interest current account deficit</b>	-1.1	1.8	2.1	2.3	1.7	1.1	1.1	1.7	1.7	1.7	2.1	4.1	3.7		
<b>of which:</b>															
<b>Deficit in balance of goods and services</b>	1.0	1.1	0.2	1.1	1.4	1.7	1.9	1.0	1.5	1.5	1.5	1.5	1.5	11.5	9.8
<b>Exports</b>	15.2	12.1	10.0	11.2	11.8	12.4	12.9	13.3	13.4	15.0	15.0	21.1	21.1		
<b>Imports</b>	23.0	21.4	18.2	20.4	21.3	22.1	22.8	23.3	23.5	25.2	26.8	26.8	26.8		
<b>Net current transfers (negative = inflow)</b>	-5.7	-5.5	-5.0	-5.7	-5.9	-6.0	-6.1	-6.1	-6.0	-6.8	-6.8	-6.1	-6.1	-6.5	-6.2
<b>of which: official</b>	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Other current account flows (positive = net inflow)</b>	0.0	0.0	-0.4	0.1	0.0	0.0	0.0	-0.2	-0.4	-0.4	-0.4	-0.4	-0.4	-3.4	-4.1
<b>Net FDI (negative = inflow)</b>	-1.7	-1.2	-0.1	-0.1	-0.4	-0.5	-0.6	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-1.4	-1.4
<b>Rescheduled debt (discount) 2/</b>	-0.1	-0.1	-0.1	-0.4	-1.4	-1.6	-1.7	-1.8	-1.8	-1.9	-1.9	-1.9	-1.9		
<b>Contribution from nominal interest rate</b>	1.7	2.0	2.0	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9		
<b>Contribution from real GDP growth</b>	-2.7	-2.5	-0.1	-4.2	-3.2	-3.5	-3.4	-3.4	-3.5	-3.6	-3.6	-3.6	-3.6		
<b>Contribution from price and exchange rate changes</b>	-2.1	-1.5	-2.1	-	-	-	-	-	-	-	-	-	-		
<b>Residual 3/</b>	4.6	2.3	1.9	6.1	-0.4	-1.3	-1.8	0.8	-0.4	-1.0	-1.4	-1.4	-1.4	1.5	-0.9
<b>of which exceptional financing</b>	0.0	0.0	0.0	-1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
<b>Sustainability indicators</b>															
<b>PV of PPG external debt-to-GDP ratio</b>	-	-	28.7	28.7	28.5	27.5	26.5	25.7	25.2	22.3	19.8	19.8	19.8		
<b>PV of PPG external debt-to-exports ratio</b>	-	-	288.3	215.8	219.2	219.8	204.2	193.6	188.3	151.5	79.8	79.8	79.8		
<b>PPG debt service-to-exports ratio</b>	19.6	31.9	26.5	19.1	22.7	26.1	29.7	18.4	17.1	16.1	7.9	7.9	7.9		
<b>PPG debt service-to-revenue ratio</b>	14.4	22.8	19.5	19.8	19.8	14.9	21.8	19.1	18.1	12.7	8.9	8.9	8.9		
<b>Gross external financing need (in billions of U.S. dollars)</b>	17,149	21,052	23,610	27,875	30,585	36,489	44,496	49,325	55,874	74,955	80,195	80,195	80,195		
<b>Key macroeconomic assumptions</b>															
<b>Real GDP growth (in percent)</b>	6.3	5.4	-0.1	7.6	5.7	6.1	6.1	6.1	6.1	6.0	6.0	6.0	6.0	5.0	6.2
<b>GDP deflator in US dollar terms (change in percent)</b>	4.5	3.1	4.1	-0.5	0.6	1.1	1.5	1.7	1.8	0.1	0.1	4.4	6.7		
<b>Effective interest rate (percent) 4/</b>	1.9	4.2	3.8	3.3	3.3	3.8	3.1	3.1	3.1	3.2	2.6	2.6	2.6	7.6	5.2
<b>Growth of exports of G&amp;S (US-dollar terms, in percent)</b>	10.7	-6.6	-14.1	20.7	10.2	12.5	11.9	11.1	8.7	8.4	8.4	1.3	10.9		
<b>Growth of imports of G&amp;S (US-dollar terms, in percent)</b>	5.7	1.2	-11.8	19.9	11.1	11.3	11.1	10.2	9.0	7.7	5.3	3.5	10.1		
<b>Grant element of new public sector borrowing (in percent)</b>	-	-	-	32.0	31.0	36.5	26.1	30.7	29.1	31.0	32.5	-	30.2		
<b>Government revenues (including grants, in percent of GDP)</b>	18.0	17.5	17.0	16.5	17.0	17.9	18.2	18.6	18.9	19.0	20.3	18.4	18.4		
<b>Aid flows (in billions of US dollars) 5/</b>	1,087	1,476	1,520	3,095	2,395	2,657	2,707	2,911	2,905	3,550	3,510				
<b>Grant equivalent financing (in percent of GDP) 6/</b>	-	-	-	2.2	1.5	1.5	1.4	1.4	1.3	1.2	1.0	-	1.4		
<b>Grant equivalent financing (in percent of external financing) 6/</b>	-	-	-	36.5	37.0	42.4	28.7	35.9	34.7	37.4	40.9	-	35.8		
<b>Nominal dollar GDP growth</b>	87,824	95,371	91,110	106,041	112,750	120,936	130,160	140,398	151,536	205,789	373,341	373,341	373,341		
<b>Nominal dollar GDP</b>	11.2	8.6	3.9	7.0	6.3	7.3	7.6	7.9	7.9	6.1	6.1	6.1	6.1	9.6	6.9
<b>Memorandum items:</b>															
<b>PV of external debt 7/</b>	-	-	51.8	50.5	51.6	51.7	51.6	53.9	55.0	54.9	34.1	34.1	34.1		
<b>in percent of exports</b>	-	-	519.9	450.1	406.7	417.2	399.6	405.4	410.8	366.8	161.6	161.6	161.6		
<b>Total external debt service-to-exports ratio</b>	195.1	161.1	215.7	205.7	202.8	218.0	240.0	241.6	252.0	236.0	96.0	96.0	96.0		
<b>PV of PPG external debt (in billions of US dollars)</b>	28,403	28,403	30,445	31,864	32,251	34,238	34,238	34,238	34,238	46,406	42,808	42,808	42,808		
<b>(PV-PV-1)/GDP (in percent)</b>	2.0	1.3	1.0	1.0	1.1	1.4	1.4	1.5	1.5	0.8	0.6	0.6	0.6		
<b>Non-interest current account deficit that stabilizes debt ratio</b>	0.4	1.0	-1.6	2.6	2.2	3.4	4.1	1.5	2.8	3.4	7.5	7.5	7.5		

Is there a material difference between the two criteria?	Yes
	No



Sources: Country authorities, and staff estimates and projections.  
 1/ Includes both public and private external debt.  
 2/ Defined as  $(1 - g - r)(1 + p + r)$  times previous period debt ratio, with  $r =$  nominal interest rate,  $g =$  real GDP growth rate, and  $p =$  growth rate of GDP deflator in U.S. dollar terms.  
 3/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets, and valuation adjustments. For projections also includes contribution from price and exchange rate changes.  
 4/ Current year interest payments divided by previous period debt stock.  
 5/ Defined as grants, concessional loans, and debt relief.  
 6/ Grant equivalent financing includes grants provided directly to the government and through new borrowing (difference between the face value and the PV of new debt).  
 7/ Assumes that PV of private sector debt is equivalent to its face value.  
 8/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

Scraped 1,013 Debt Sustainability Analysis for 78 low-income countries, 2004-2024

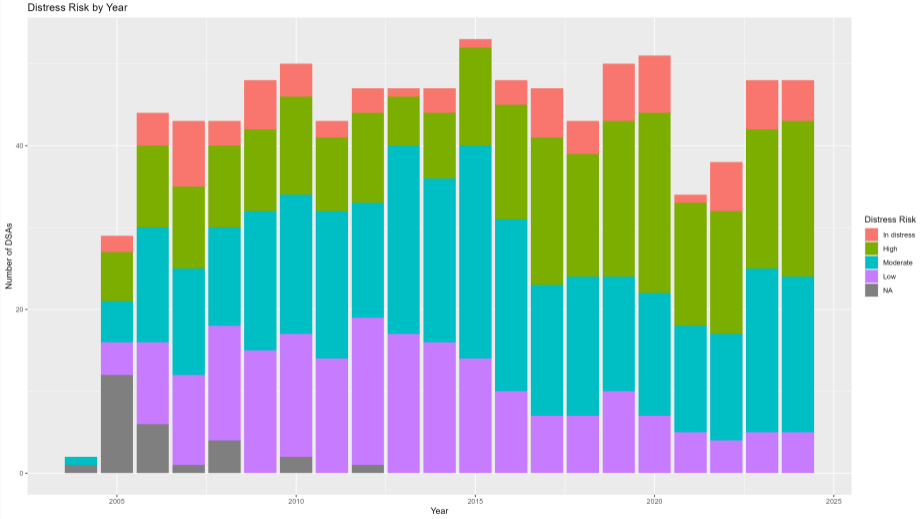
- Risk Rating
- Text Sentiment
- GDP and Debt/GDP (growth) forecasts

How does geopolitical influence affect DSAs?

LICs more aligned with US, and less aligned with China receive

1. more favorable DSA **risk ratings** (relative to fundamentals)
2. more **positive text sentiment** in DSA text (relative to fundamentals)
3. more optimistic **debt/gdp (growth) forecasts**

# DSA Data: Descriptives



- Unit of analysis: DSA
- DV: Favorability in DSAs
  - DSA ratings: In distress (4), High (3), Moderate (2), Low (1)
  - Text sentiments: # of positive words / # of negative words (normalized 0-1)
  - Forecast errors: preliminary findings
- IV: A country's political alignment with great powers
  - Ideal policy distance (UNGA voting), US foreign aid, Chinese loans
- Controls: External debt, Current account balance, FDI inflows, Growth rates, Total reserve, IMF/WB commitments, 2013 & 2017 DSA reforms, regions, etc.

# Preliminary Result: Analysis on DSA ratings

DV: DSA risk rating (1: low, 4: in distress)	(1)	(2)	(3)	(4)
1. Current account balance	-0.0310*** (0.00884)	-0.0208** (0.00903)	-0.030*** (0.00878)	-0.0343** (0.0152)
1. External debt (%GDP)	0.0121*** (0.00239)	0.0124*** (0.00232)	0.0127*** (0.00237)	0.0163*** (0.00371)
1. FDI inflows (%GDP)	-0.0447*** (0.0131)	-0.0531*** (0.0144)	-0.0468*** (0.0133)	-0.0700*** (0.0234)
1. GDP growth rate	-0.0376** (0.0147)	-0.0260* (0.0143)	-0.0357** (0.0147)	-0.101*** (0.0276)
1. Total reserve (% debt)	-0.00226 (0.00155)	-0.00217 (0.00163)	-0.00261* (0.00155)	-0.0119*** (0.00354)
1. Policy distance w US	0.609*** (0.199)			
1. (log) US foreign aid		-0.236*** (0.0346)		
1. Policy distance w China			-0.705*** (0.254)	
1. (log) Chinese debt (% GDP)				0.0471** (0.0194)
N	680	653	680	365

Region fixed effects & reform controls & WB loans included. Standard errors in parentheses  
 \*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$

- Ordinal logit
- Voting similarity with US & US foreign aid → better rating
- Voting similarity with China & Chinese debt → worse rating

# Preliminary Result: Analysis on DSA text sentiments

DV: positive text	(1)	(2)	(3)	(4)
l. current account balance	-0.0101*** (0.00318)	-0.0103*** (0.00309)	-0.00994*** (0.00316)	-0.00781** (0.00338)
l. External debt (% GDP)	0.000811* (0.000472)	0.000819* (0.000420)	0.000851* (0.000468)	-0.000341 (0.000571)
l. FDI inflows (% GDP)	-0.00670** (0.00299)	-0.00645** (0.00281)	-0.00690** (0.00300)	-0.00243 (0.00301)
l. GDP growth rate	0.00338 (0.00531)	-0.00103 (0.00456)	0.00348 (0.00525)	0.000622 (0.00769)
l. Total reserve (% debt)	0.00291*** (0.000788)	0.00288*** (0.000743)	0.00286*** (0.000784)	-0.000526 (0.000722)
l. Policy distance w US	0.0699 (0.0583)			
l. (log) US foreign aid		0.0203* (0.0119)		
l. Policy distance w China			-0.0849 (0.0664)	
l. (log) Chinese debt				0.00180 (0.00540)
<i>N</i>	694	665	694	378

Regional fixed effects & reform controls included. Standard errors in parentheses

\*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$

- Fractional logit models
- Suggestive but weak evidence
- Voting similarity with US/China & Chinese debt → do not matter for text sentiments

## Notation

- Let  $D$  be the year of the DSA (vintage)
- Let  $t$  be a year,  $t > D$  (horizon)
- Let  $X_t$  be the value of variable  $X$  predicted for year  $t$  in DSA compiled in year  $D$
- Let  $X'$  be the same variable, but after revision or backfilling.
- Then  $X'_D$  is the revised value for year  $D$
- $X'_t$  is the revised value  $t$ .

## Data Sources

- $X_t, X_D$  from the DSA
- $X'_t, X'_D$  from the current version of the IDS

## Forecast Error Calculation Methods

Three approaches (Mooney and de Soyres 2017):

$$FE_A = X_t - X'_t$$

$$FE_B = (X_t - X_D) - (X'_t - X'_D)$$

$$FE_C = \frac{X_t - X_D}{X_D} - \frac{X'_t - X'_D}{X'_D}$$

Consider *GDP growth*

- Negative: DSA prediction of gdp growth is smaller than actual
  - pessimism
- Positive: DSA prediction of gdp growth is larger than actual
  - optimism

### Policy Distance from US

- GDP growth underestimated ( $\beta < 0$ )
- Debt/GDP growth overestimated ( $\beta > 0$ ).

### Policy Distance from China

- GDP growth overestimated ( $\beta > 0$ )
- Debt/GDP growth underestimated ( $\beta < 0$ ).

# Preliminary Result: GDP Growth Rate Prediction

	GDP Growth Rate Error					
	Method A		Method B		Method C	
	(1)	(2)	(3)	(4)	(5)	(6)
(Log) US Foreign Aid	0.185 (0.176)		-0.030 (0.186)		0.323** (0.161)	
Policy Distance w US		0.428 (0.523)		0.118 (0.556)		0.966** (0.482)
Prediction length (# of years)	0.214*** (0.032)	0.210*** (0.031)	0.226*** (0.034)	0.224*** (0.033)	0.024 (0.029)	0.031 (0.029)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,641	4,744	4,622	4,719	4,622	4,719
R <sup>2</sup>	0.103	0.103	0.096	0.097	0.097	0.098
Adjusted R <sup>2</sup>	0.084	0.085	0.078	0.078	0.078	0.079
Residual Std. Error	6.463 (df = 4546)	6.448 (df = 4648)	6.823 (df = 4527)	6.810 (df = 4623)	5.883 (df = 4527)	5.907 (df = 4623)

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

# Preliminary Result: GDP Growth Rate Prediction

	GDP Growth Rate Error					
	Method A		Method B		Method C	
	(1)	(2)	(3)	(4)	(5)	(6)
(Log) Chinese Debt	0.002 (0.016)		0.065*** (0.017)		-0.027* (0.015)	
Policy Distance w China		0.232 (0.482)		0.036 (0.513)		0.354 (0.445)
Prediction length (# of years)	0.204*** (0.031)	0.211*** (0.031)	0.213*** (0.033)	0.224*** (0.033)	0.034 (0.029)	0.033 (0.029)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,654	4,744	4,635	4,719	4,635	4,719
R <sup>2</sup>	0.103	0.103	0.100	0.097	0.096	0.097
Adjusted R <sup>2</sup>	0.085	0.085	0.082	0.078	0.077	0.078
Residual Std. Error	6.404 (df = 4561)	6.448 (df = 4648)	6.756 (df = 4542)	6.810 (df = 4623)	5.932 (df = 4542)	5.909 (df = 4623)

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

## Forecast Error Calculation Methods

$$FE_A = X_t - X'_t$$

$$FE_B = (X_t - X_D) - (X'_t - X'_D)$$

$$FE_C = \frac{X_t - X_D}{X_D} - \frac{X'_t - X'_D}{X'_D}$$

Consider *Debt/GDP ratio*

- Negative: DSA prediction of debt/gdp (growth) is smaller than actual
  - optimism
- Positive: DSP prediction of debt/gdp (growth) is larger than actual
  - pessimism

Prediction: Friends of US get more optimistic predictions.

# Preliminary Results: External Debt/GDP Prediction

	External Debt Percentage of GDP					
	Method A		Method B		Method C	
	(1)	(2)	(3)	(4)	(5)	(6)
(Log) US Foreign Aid	0.420 (0.828)		0.003 (0.761)		-0.016 (0.038)	
Policy Distance w US		11.611*** (2.603)		5.525** (2.398)		-0.068 (0.119)
Prediction length (# of years)	-2.546*** (0.162)	-2.554*** (0.159)	-2.499*** (0.149)	-2.485*** (0.147)	-0.057*** (0.007)	-0.056*** (0.007)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,322	4,374	4,266	4,318	4,259	4,311
R <sup>2</sup>	0.532	0.535	0.377	0.380	0.437	0.437
Adjusted R <sup>2</sup>	0.523	0.525	0.364	0.366	0.425	0.425
Residual Std. Error	29.633 (df = 4231)	29.430 (df = 4283)	27.136 (df = 4175)	27.036 (df = 4227)	1.351 (df = 4168)	1.344 (df = 4220)

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

# Preliminary Result: External Debt/GDP Prediction

	External Debt Percentage of GDP					
	Method A		Method B		Method C	
	(1)	(2)	(3)	(4)	(5)	(6)
(Log) Chinese Debt	0.006 (0.076)		0.175** (0.070)		-0.004 (0.004)	
Policy Distance w China		-11.733*** (2.395)		-12.096*** (2.225)		0.001 (0.111)
Prediction length (# of years)	-2.535*** (0.160)	-2.530*** (0.159)	-2.483*** (0.147)	-2.475*** (0.147)	-0.056*** (0.007)	-0.056*** (0.007)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,349	4,374	4,293	4,318	4,286	4,311
R <sup>2</sup>	0.535	0.535	0.381	0.383	0.437	0.437
Adjusted R <sup>2</sup>	0.525	0.526	0.368	0.370	0.425	0.425
Residual Std. Error	29.427 (df = 4259)	29.416 (df = 4283)	26.972 (df = 4203)	26.959 (df = 4227)	1.346 (df = 4196)	1.344 (df = 4220)

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

## Summary of Preliminary Findings

### Friends of US:

- More optimistic GDP growth forecasts: ×
- More optimistic Debt/GDP growth forecasts: ✓
- Better risk ratings relative to fundamentals: ✓
- More positive text: ×?

### Friends of China:

- Less optimistic GDP growth forecasts: ×
- Less optimistic Debt/GDP growth forecasts: ✓
- Worse risk ratings relative to fundamentals: ✓
- Less positive text: ×?

## Overall: US/China friction

Has damaging consequences for low-income countries in debt distress

- Delays PC restructuring
- Biases the crucial role IFIs play in resolving debt distress.

- Across the GNU
- Website to collect and coordinate scholarly activity on PE of SD.
- NYU Workshop on PE of SD
  - May 12, 13
  - Hosted at 19 WSN
- Co-organizing external events
- Second Annual Princeton Sovereign Finance Lab Conference at SPIA DC
  - WB/IMF Spring Meetings
- DebtCon