

Crisis Lending: Preferred and Non Preferred Creditors

Tito Cordella (WB) and Andrew Powell (IADB),

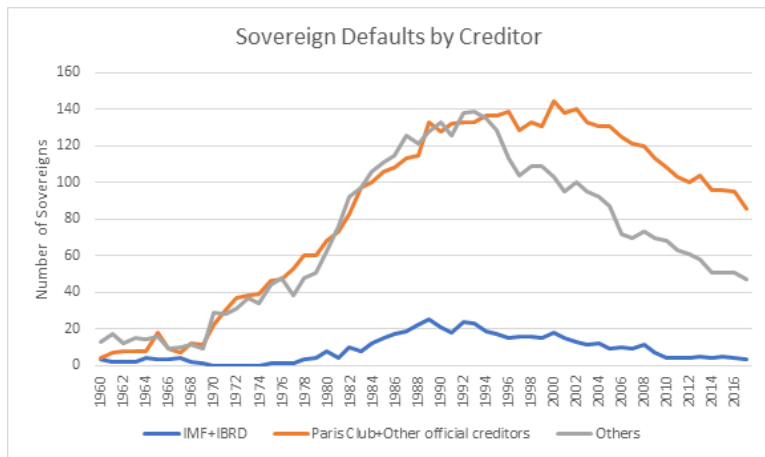
DSA Workshop, ESM

What is the PCS?

- The preferred creditor status **is not** a legal status or a legal obligation on governments to give the World Bank, the IMF, or other IFIs, priority over other lenders

- “**It is** the practice (or custom) of borrowing member countries of continuing to service their loans from the Bank during periods when they are unable to service all their external debts in accordance with their terms, which other creditors have acquiesced in this practice”

PCS is a common practice



One possible reason

Lending Rates for IBRD Flexible Loans with a Variable Spread ⁽¹⁾ (Effective July 1, 2018) ⁽²⁾⁽⁴⁾

Average Maturity (years) ⁽⁵⁾	8 years and below	Greater than 8 to 10	Greater than 10 to 12	Greater than 12 to 15	Greater than 15 to 18	Greater than 18 to 20
Group A	LIBOR +0.48%	LIBOR +0.58%	LIBOR +0.68%	LIBOR +0.78%	LIBOR +0.88%	LIBOR +0.98%
Group B	LIBOR +0.48%	LIBOR +0.58%	LIBOR +0.73%	LIBOR +0.88%	LIBOR +1.03%	LIBOR +1.18%
Group C	LIBOR +0.48%	LIBOR +0.58%	LIBOR +0.78%	LIBOR +0.98%	LIBOR +1.18%	LIBOR +1.38%
Group D	LIBOR +0.53%	LIBOR +0.63%	LIBOR +0.88%	LIBOR +1.13%	LIBOR +1.38%	LIBOR +1.63%
Front-End Fee ⁽⁷⁾	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%
Commitment Fee ⁽⁸⁾	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%

- Sovereign borrowing and willingness to pay literature does not address PCS
 - e.g., Eaton and Gersowitz (1981), Kletzer and Wright (2000), Arellano (2008), Aguilar and Amador (2013)

- PCS literature does not address willingness to pay senior creditors, it assumes it
 - e.g., Bolton and Jeanne (2009), Boz (2011), Chatterjee and Eyigungor (2015), Fink and Sholl (2016), Hatchondo et al (2017)

- Can the PCS be sustained as an equilibrium outcome?
- Are there limits to the amount of “safe” official lending?
- Do such limits depend on the characteristics of a country?
- What is the optimal amount of official (preferred) lending?

To answer these questions

- We present a very simple (simplistic?) model
- Where a country borrows to cope with the adverse effects of financial crises
- And decides whether to repay or not depending on the value of the lending relationship
- Which can differ between official and private lenders

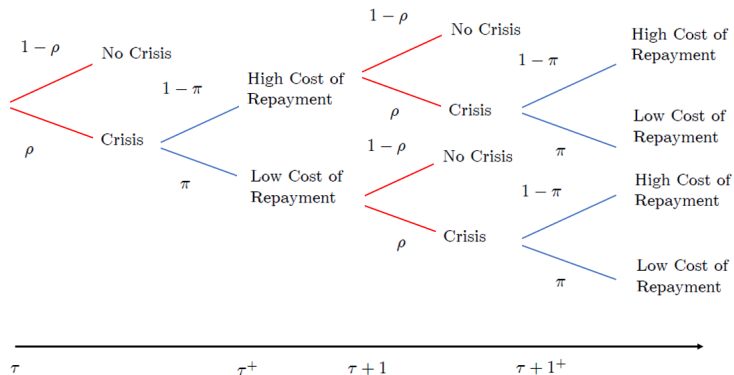
The model (i)

- Infinite horizon model, discrete time
- In period τ , the country is hit by a financial crisis with probability ρ
- If no crisis occurs in τ , then no crisis will ever occur thereafter
- If, a crisis occurs in τ , then with probability ρ it occurs in $\tau + 1$
- Loans are short term and are due at the end of each period (τ^+)
- If the country defaults,
 - it cannot borrow anymore from officials
 - it can borrow with prob. $\nu \in (0, 1)$ from the market

The model (ii)

- We normalize the utility in all non-crisis states to 0
- In crisis states, absent lending, utility it is equal to $-C$
- By borrowing an amount L , utility is $-C + aL - \frac{L^2}{2}$
- There is some state-contingent cost for the country to repay debt
 - 1 in the low-repayment-cost state, which occurs with prob. π
 - $k \gg 1$ in the high-repayment-cost state
- Discount factor and the (gross) risk free interest rate are equal to 1

Timeline



Official lending (i)

- The country has access to an official lender
- Which lends at the risk free rate
- The value function for the country, which borrows L_{O_t} and always repays, is given by:

$$V_{O_t} = \rho \left(-C + aL_O - \frac{L_{O_t}^2}{2} - L_{O_t}((1 - \pi)k + \pi) + V_{O_{t+1}} \right)$$

- So that

$$.V_O = \frac{1}{1 - \rho} \left(-C + aL_O - \frac{L_O^2}{2} - L_O((1 - \pi)k + \pi) \right)$$

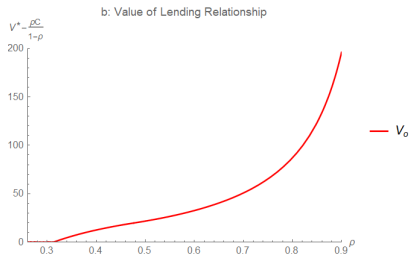
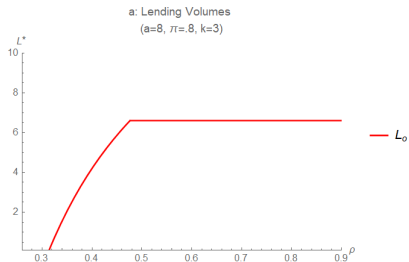
- The optimal amount of risk-free borrowing is the solution of

$$\text{Max}_{L_0} V_0 = \frac{1}{1-\rho} \left(-C + aL_0 - \frac{L_0^2}{2} - L_0((1-\pi)k + \pi) \right)$$

- Under the constraint that the country services the loan in the high-repayment-cost state:

$$V_0 - kL_0 \geq -\frac{\rho C}{1-\rho}$$

Optimal Official Lending



Market lending (i)

- The country has access to a competitive financial market
- Assume it defaults in the high-repayment-cost state and lenders charge a gross interest rate of $1/\pi$
- The optimal amount of borrowing is the solution of

$$\text{Max}_{L_{MD}} V_{MD} = \frac{-C + aL_{MD} - \frac{L_{MD}^2}{2} - L_{MD} - (1-\pi)(1-\nu)\frac{\rho C}{1-\rho}}{1 - (\pi + (1-\pi)\nu)\rho}$$

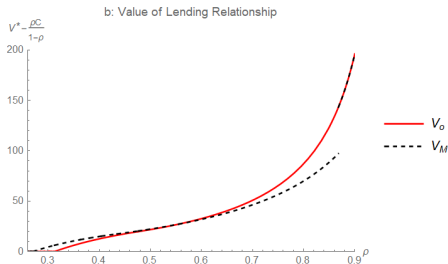
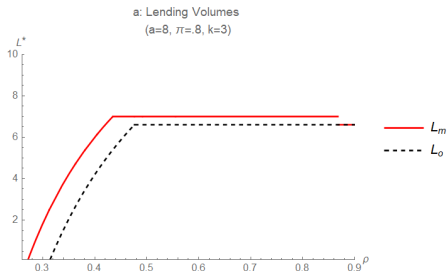
- Under the constraint that the country services the loan in the low-repayment-cost state:

$$(1-\nu)V_{MD} - \frac{L_{MD}}{\pi} \geq -(1-\nu)\frac{\rho C}{1-\rho}$$

Market lending (ii)

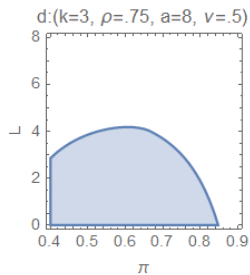
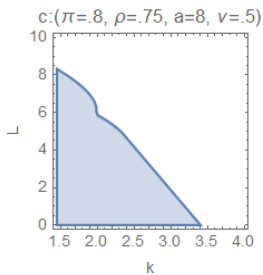
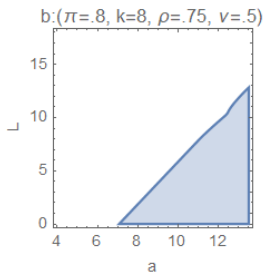
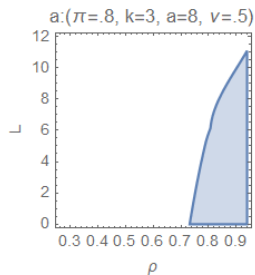
- State-contingent default is not the only type of market equilibrium
- The market may be able to mimic the official sector, charge the risk free rate, and be repaid
- This is an equilibrium if the country has no incentive in deviating
 - diluting the existing private claims
 - borrowing and additional amount $L_{D_t}^*$ at the risk adjusted rate
 - repaying creditors in the low-repayment-cost state
- (Out of equilibrium believes matter)

Market Equilibrium (and Comparison)



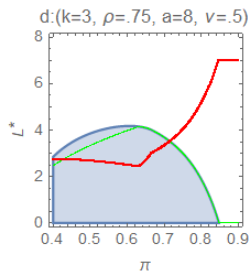
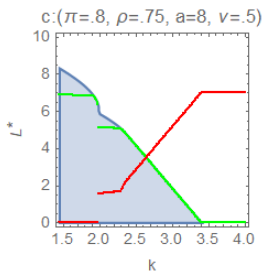
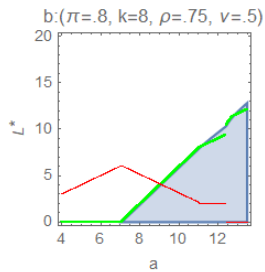
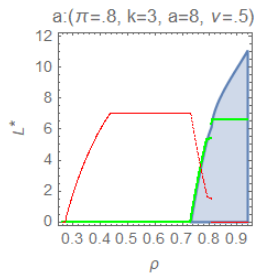
- Assume now that official and market lenders coexist
- A necessary and sufficient condition for the official sector to be repaid in all states is that, in the high-repayment-cost state, the country is better off if it repays the official sector, instead of defaulting and borrowing only from the market from then on

Safe official lending

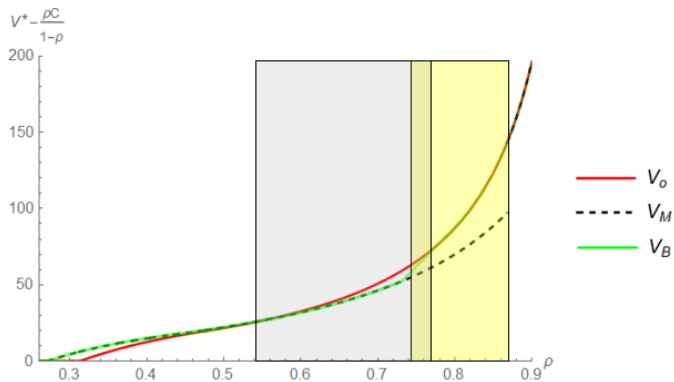


- To solve for the blended case we assume that the (benevolent) official sector moves first
- And chooses the optimal amount of (safe) lending
- Anticipating what the country will borrow from the market

Solving for the Blended case



How valuable is official lending?



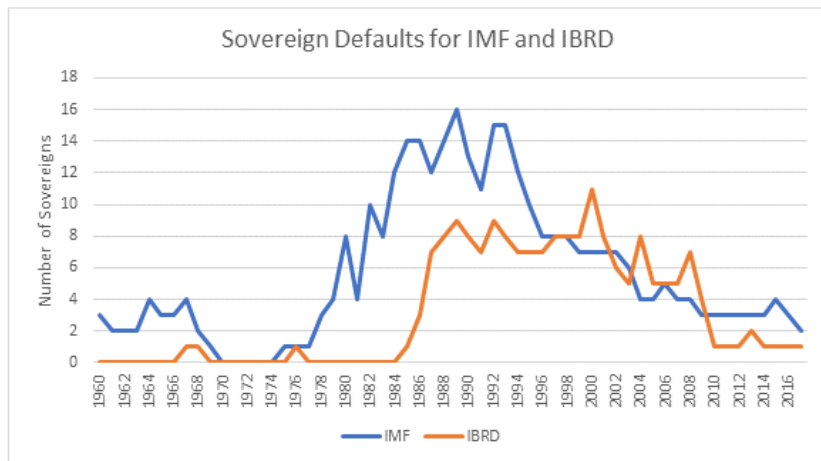
- Official lenders are valuable because they can commit to lend a specified amount that will be repaid
- Markets seldom can do that (the dilution problem)
- The preferred creditor status is stronger when
 - crisis are recurrent (but not too much)
 - the difference between high and low repayment cost is smaller
 - market rates are neither too high or too low
 - crisis lending is more valuable
- It may be welfare improving for IFIs to lend conditionally on countries not borrowing from the market

- PCS allows the official sector to lend more when the risk for commercial lenders is relatively high
- This means that IFIs should not allocate capital according to commercial lender risk measures
- Actually, should lend proportionally more to countries that have no or little market access
- This not only for development reasons, but also for safeguarding their resources

- Official lenders can help countries cope with financial crises, but there is a limit to the amount they can lend if they want to maintain their preferred creditor status
 - Greece repaid private lenders while on default with the IMF, and I doubt it will ever repay...others official creditors
 - Argentina received a relatively small IMF package in 2001 and repaid in full and early
 - Italy?
- Asking IFIs to “share the burden” in a debt restructuring operation, would destroy their ability of lending risk free, and would destroy their value added
- Bottom line: PCS lenders are different, the difference should be exploited not diminished

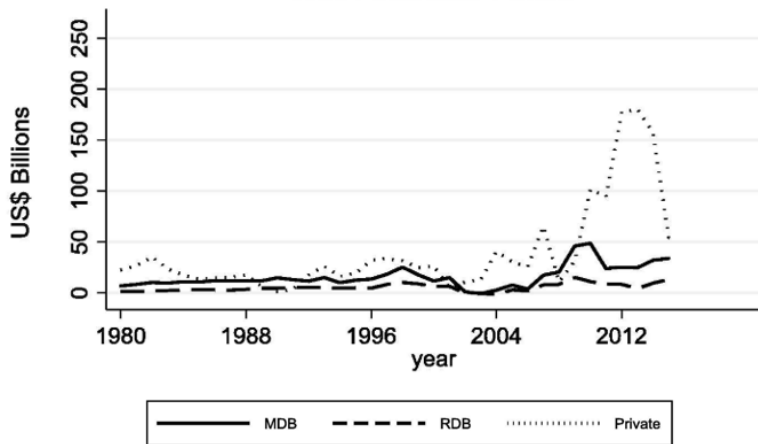
Thank You!

IMF vs IBRD



Another one (not in this paper)

Net Financial Flows



Name and Shame

Number of defaults years to IMF and/or IBRD, by country

Countries	IMF	IBRD	IMF&IBRD	Countries	IMF	IBRD	IMF&IBRD
Afghanistan	9	1	1	Laos	1	0	0
Argentina	4	2	1	Lebanon	0	1	0
Bolivia	2	0	0	Liberia	25	23	23
Bosnia & Herzegovina	3	5	0	Macedonia	0	1	0
Brazil	4	0	0	Myanmar	0	4	0
Cambodia	19	0	0	Nicaragua	4	7	2
Central African Republic	9	0	0	Pakistan	2	0	0
Chad	1	0	0	Panama	5	4	4
Chile	2	0	0	Peru	9	5	5
Comoros	1	1	0	Rep. Of Congo (Brazzaville)	0	6	0
Côte d'Ivoire	0	5	0	Romania	4	1	1
Cuba	5	0	0	Rwanda	1	0	0
Dem. Rep. of Congo (Kinshasa)	18	9	9	Samoa	0	1	0
Dominican Republic	1	0	0	Serbia	9	11	9
El Salvador	1	0	0	Seychelles	0	5	0
Equatorial Guinea	3	0	0	Sierra Leone	12	4	4
Gambia	3	0	0	Somalia	34	4	4
Ghana	1	0	0	St. Lucia	3	0	0
Greece	1	0	0	Sudan	37	9	9
Guatemala	0	2	0	Suriname	1	0	0
Guinea-Bissau	3	0	0	Syria	1	16	0
Guyana	10	3	3	Tanzania	3	0	0
Haiti	7	2	1	Togo	0	2	0
Honduras	3	1	1	Uruguay	1	0	0
India	0	1	0	Vietnam	14	0	0
Iran	0	1	0	Yugoslavia	2	0	0
Iraq	14	14	13	Zambia	12	3	3
Jamaica	5	0	0	Zimbabwe	16	17	16
				Total (56 countries)	325	171	109