


How Sovereign is Sovereign Credit Risk?

by

F. Longstaff, J. Pan,
L. Pedersen, and K. Singleton

Discussed by
Jean Helwege
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Research Question

How much of risk perceived in CDS premia of sovereign credits reflects the unique circumstances of that country?

Is default risk unique to the country?

Do CDS premia mainly reflect default risk?

If severe commonality of CDS premia, can CDS/bonds offer much in the way of diversification benefits?



Diversification

Consider pairwise correlations:

For CDS returns, average is 36.4%

For equity indexes of same countries, 27.4%

CDS correlations range from $-.11$ to $.90$,
whereas max of equity pairs is only $.71$

Pairs of pairs' correlations usually higher for
CDS than for equity



Diversification

If CDS returns reflect global, as opposed to local, risks, maybe not much of an advantage to include sovereign CDS in your portfolio

Correlations speak to within group variation but question of whether sovereign CDS constitute a separate asset class should focus on how the group varies with other asset classes

Table 10 speaks to correlation with other groups
Low R-square



Diversification

How much within group variation is a lot?

Collin-Dufresne, Goldstein and Martin (2001) show that one principal component explains most of the residual variation in corporate bond spreads

One important principal component provides the setting for nice storytelling. Three?

Show principal components for equity



Sources of Commonality

How hard should the authors look for country specific factors? What are we looking for – default risk or liquidity or time varying risk premia?

Current focus is on stock market returns in local currency, exchange rate and reserves

Already saw stocks and CDS differ

small economy
Stock market capitalization represents part of emerging market countries'



Stock Market Capitalization

Bulgaria	0.004	Pakistan	0.186
Romania	0.004	Colombia	0.203
Poland	0.014	Brazil	0.241
Russian Federation	0.023	Israel	0.378
Croatia	0.03	Mexico	0.392
Hungary	0.046	Korea, Rep.	0.419
China	0.062	Japan	0.723
Slovak Republic	0.067	Philippines	0.763
Venezuela	0.068	Thailand	0.824
Panama	0.097	Chile	1.113
Turkey	0.136	South Africa	2.023
Peru	0.169	Malaysia	2.459
		United States	0.823

Source: 1995 data compiled by Borja Larrain, Boston Fed



Sources of Commonality

Previous research on sovereign defaults have also emphasized:

Debt service

Inflation

GDP growth

Investment activity

Strength/diversification of export sector

Reliance on imports



Sources of Commonality

Obvious source of commonality is level of risk

CDS contracts for 26 countries but not just any 26 countries

Institutional Investor country rankings for March 2005 range from 19 to 86 in the sample (174 countries)



Institutional Investor Rankings

Mar-07	Country	Sep-07	Mar-07	Country	Sep-07
1	Switzerland	96.4	57	Bulgaria	61.2
19	Japan	89.8	59	Croatia	60.6
28	Korea	79.4	60	Brazil	61.2
29	Chile	77.6	62	Romania	59.3
31	Qatar	76.2	64	Peru	58.2
34	China	75.9	65	Colombia	56.6
38	Malaysia	72.8	66	Panama	56.1
39	Slovak	70.9	71	Turkey	51.7
40	Poland	71.2	73	Philippines	52.2
41	Mexico	70.0	78	Venezuela	47.9
46	Israel	68.3	79	Kenya	45.1
47	Hungary	66.0	86	Pakistan	40.2
48	Russia	67.5	116	Bhutan	32.1
49	South Africa	66.7	140	India	22.4
54	Thailand	64.1	159	Cuba	15.8
			174	Somalia	4.7



Sources of Commonality

Unwillingness to write contracts on all 174 countries suggests taste for risk is limited

Time variation in countries for which CDS contracts exist reflects time varying risk premia?

If liquidity, can we see it in sovereign bond trading activity, bid-ask spreads, etc.?
