

JANUARY 2012

# Time to rethink hurdle rates

Understanding political risk premia in a new financial environment



## 1. Why is it time to rethink political risk premia today?

In today's global economy, attractive growth opportunities are often not found in the home jurisdiction. As a result, many domestic and multinational companies have expanded, and are expected to continue to expand, their foreign operations. While foreign investments can offer attractive returns, senior decision-makers are confronted with significant challenges in assessing their prospective risk. One key question is: **“Should companies use different hurdle rates when contemplating an investment in another jurisdiction?”**

Global firms commonly estimate emerging market hurdle rates by adding Political Risk Premia (PRP) to developed market hurdle rates. These premia reflect the possibility of losses due to political intervention and expropriation. Traditional PRP measures typically rely on sovereign credit risk measures, such as bond or Credit Default Swap (CDS) spreads. Recent political and financial developments, however, highlight certain deficiencies with the use of these measures in the context of cross-border M&A and other investments.

With the Euro crisis, many European countries (such as Portugal and Italy) have elevated sovereign credit spreads, which suggests investors should potentially use a PRP for these countries also. But the bond spreads or CDS appear to overestimate the risk associated with a Eurozone equity investment. In contrast, the sovereign credit spreads of several large emerging countries with strong foreign currency reserves appear to be counterintuitively low for private investments in these countries.

In this report, we compare the traditional sovereign credit risk metrics with equity-implied PRP metrics. In some instances, the equity-implied results are more intuitive than the traditional sovereign credit-based methodologies.

### EXECUTIVE TAKEAWAY

Decision-makers often add risk premia to hurdle rates for investments in certain jurisdictions. In some instances, equity-implied results are more intuitive than the traditional sovereign credit-based methodologies.

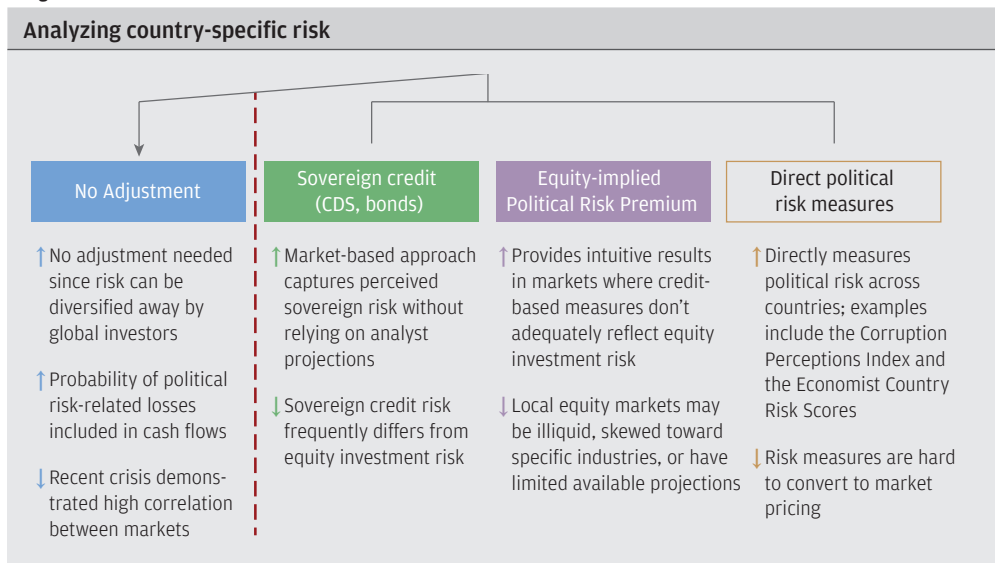
## 2. The political risk premium puzzle

The Capital Asset Pricing Model (CAPM) suggests that if country-specific risk is diversifiable by global investors, then no risk adjustment to the CAPM discount rate is necessary. According to this view, the discounted projected cash flows already incorporate potential losses from political intervention, such as expropriation. In other words, **firms' expectations of cash flows should already account for likely losses due to country and political risk.** In practice, however, there is often no easy way to reflect the likelihood and associated losses of such interventions.

Furthermore, the European debt crisis has demonstrated the interconnectedness of global markets and the potential for contagion, especially during severe market downturns. Therefore, the notion that political risk in one country is unrelated to equity returns in other countries has been questioned, challenging the view that investors can fully diversify their risk. Given these considerations, many decision-makers add PRP estimates to CAPM-based hurdle rates to compensate for expected cash flows that are arguably too high.

As a proxy for this incremental risk premium, decision-makers have typically used several indicators (see Figure 1), including sovereign credit pricing or metrics (e.g., bonds, CDS, ratings), equity-based measures (e.g., Dividend Discount Model) and rankings or measures based on GDP per capita, country ratings, corruption and the rule of law (e.g., Corruption Perceptions Index and/or the Economist Country Risk ratings). Though the most common, the sovereign credit risk-based methods implicitly assume that the likelihood and cost of political risk for firms making private investments in a country are highly correlated with a country’s credit metrics (i.e., a country’s ability to honor its debt obligations). It is this assumption that has become particularly challenged in recent months.

Figure 1



Many market participants advocate the use of a PRP for emerging market investments. Today, however, credit metrics for some large emerging markets suggest significantly lower risk in these countries (e.g., China and Brazil) than in several traditional developed markets where PRPs were not typically used (e.g., Italy and Portugal). Such results are counterintuitive for market participants who recognize that the sovereign financial conditions of many emerging countries are robust today, but who are also concerned about the rule of law and potential political intervention in these countries relative to developed, albeit financially stressed countries. Should decision-makers use a PRP for these developed markets, and if so, should sovereign credit metrics or alternative measures be employed?

**EXECUTIVE TAKEAWAY**

Credit-based risk premia estimates assume that the risk for firms making private investments in a country is highly correlated with that country’s credit metrics. For certain developed and emerging markets, this assumption may be questioned today.

### 3. Sovereign credit-based method to adjust foreign hurdle rates

The sovereign credit-based method relies on fixed income-based metrics to derive PRP estimates. Two commonly referenced metrics are sovereign bond spreads (for example, those provided by the J.P. Morgan Emerging Markets Bond Index, or EMBI) and CDS spreads. Both metrics yield similar results, though metrics based on the EMBI exclude developed but financially stressed economies, such as Greece, Portugal, Ireland, Italy and Spain.

**The sovereign credit-based method works best when potential losses due to political risk and sovereign financial risk are highly correlated.** Southern Europe today is a good example of the potential shortfalls of the sovereign credit methodology. As Figure 2 illustrates, sovereign CDS spreads today for developed Western European countries seem intuitively too high as a proxy for equity investment risk. Conversely, CDS spreads for some emerging markets appear too low to use as a proxy for equity investment risk, especially given the possibility of expropriation in some of these countries. **Should companies also adjust their hurdle rates for investments in certain riskier European countries, the way they have done so for emerging markets? If so, what is the best method to capture this risk?**<sup>1</sup>

Figure 2

#### Pre-crisis versus current CDS spreads

Region/Country	June 2007	December 2011
GIPS–Europe		
Greece	5 bps	8,400 bps
Italy	6	436
Portugal	4	1,030
Spain	3	331
<b>Median</b>	<b>5 bps</b>	<b>733 bps</b>
BRICs less India <sup>1</sup>		
Brazil	76 bps	112 bps
Russia	43	232
China <sup>2</sup>	63	99
<b>Median</b>	<b>63 bps</b>	<b>112 bps</b>

Note: CDS data based on 5-year USD; December 2011 data are expressed as spreads to that of the U.S. (of 50 bps).

<sup>1</sup> Excludes India due to lack of actively traded CDS.

<sup>2</sup> As of January 2008 due to limited data.

#### EXECUTIVE TAKEAWAY

Using sovereign credit-based methods to adjust hurdle rates suggests counterintuitively high adjustments for certain developed countries (e.g., Italy and Portugal) and counterintuitively low adjustments for certain emerging markets.

<sup>1</sup> Further complicating this approach are the long-term consequences of recent sovereign credit events on the CDS market. Recent actions taken by the EU are designed to avoid triggering default, thereby undermining the protection CDS contracts are intended to provide. This has some market participants calling into question the effectiveness and relevance of the sovereign CDS market.

## 4. An equity markets-based alternative

### Equity- versus credit-based measures

As an alternative to the sovereign credit spread method, one can also use an equity-based methodology that relies on the Dividend Discount Model (DDM). This methodology employs expected dividend payments, a terminal value and the current price of a local equity index (such as the S&P 500 in the U.S.) to back out the implied Internal Rate of Return (IRR) for that market, and subtracts each country's respective market risk premium from that of the U.S. to arrive at the PRP.

The equity-implied methodology implies a 2% political risk premium for Portugal relative to the 10% implied by the bond and CDS measures. Conversely, it implies higher political risk premia for emerging markets relative to many European countries. This result is intuitively consistent with the notion that the risk of expropriation and other political uncertainties that can directly impact corporate investments is still likely to be higher in emerging markets relative to advanced economies (albeit significantly lower than a few years ago). Our results are also generally consistent in that they associate markets with higher political stress levels and sharp selloffs—such as some markets in Europe—with higher PRPs than their less stressed peers.

Figure 3

CDS spreads and implied Political Risk Premia for selected economies

Country	Credit implied		Equity implied
	Bond-spread based Political Risk Premia	CDS spreads	Political Risk Premia
<b>Emerging Markets</b>			
Russia	323 bps	232 bps	397 bps
China	283	99	232
Indonesia	269	160	227
Brazil	229	112	216
India	420	NA	198
Malaysia	186	97	112
<b>Median</b>	<b>276 bps</b>	<b>112 bps</b>	<b>222 bps</b>
<b>Europe</b>			
Spain	367 bps	331 bps	290 bps
Greece	3,284	8,400	259
Portugal	1,080	1,030	212
Ireland	629	667	119
France	121	169	67
Italy	431	436	63
Germany	0	52	47
United Kingdom	0	48	0
<b>Median</b>	<b>399 bps</b>	<b>384 bps</b>	<b>93 bps</b>
United States	0 bps	0 bps	0 bps

Source: Bloomberg; J.P. Morgan

Note: Market data as of 12/29/2011; Indonesia, Brazil, China, Greece, Russia, Portugal and Malaysia represent countries for which traditional credit-based measures are most frequently used; Other countries (excluding the U.S.) represent those for which the proposed equity-implied Political Risk Premia may yield more intuitive results; Bond-spread-based premia based on J.P. Morgan EMBI Index, which is unavailable for India, Spain, Greece, Portugal, Ireland, Italy and France. Bond-based premia for these countries estimated using the difference between local 10-year bond yields (or nearest available) and 10-year U.S. Treasury yields, adjusted for IMF expected long-term inflation; Bond-spread-based premia for Germany and the United Kingdom are materially 0 bps (negative 12 bps and 13 bps, respectively), as is the equity-implied PRP for the United Kingdom (negative 15 bps), and indicated in table as "0 bps"; CDS data based on 5-year USD and are expressed as spreads to that of the U.S. (of 50 bps); Equity-implied risk premium estimated using a dividend discount model (DDM) that employs expected dividend payments, a terminal value and the current price of a local equity index (such as the S&P 500 in the U.S.) to back out the implied Internal Rate of Return (IRR) for that market, and subtracts each country's respective market risk premium from that of the U.S. to arrive at the Political Risk Premium.

**Equity-implied Political Risk Premia are more correlated to political measures than sovereign credit spreads**

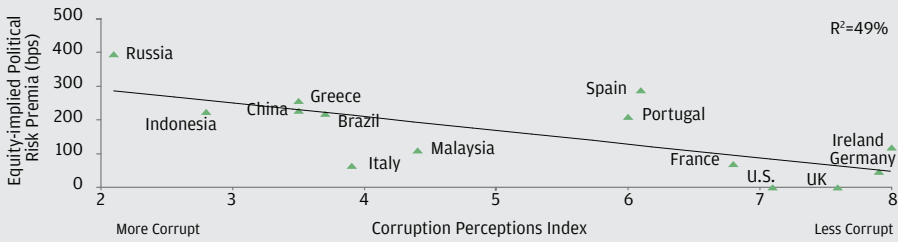
Another way to gauge the effectiveness of the equity-implied PRP is by comparing it to political measures. While it is challenging to translate political measures directly into pricing, it is useful to examine the correlation with our equity-based measure. In Figures 4A and 4B, we show that political measures, such as the Corruption Perceptions Index, are much more correlated with the equity-implied measure than to the sovereign credit measure for the set of countries illustrated in Figures 4A and 4B.

There are, however, some challenges with employing equity-based measures in a broad range of markets; such challenges are especially likely to arise in circumstances where:

- Equity markets do not exist
- Equity markets are illiquid
- Equity markets are weighted heavily in favor of specific countries or sectors (e.g., markets that are largely comprised of natural resources firms)
- Equity markets and indices do not have robust earnings projections available

Figure 4A

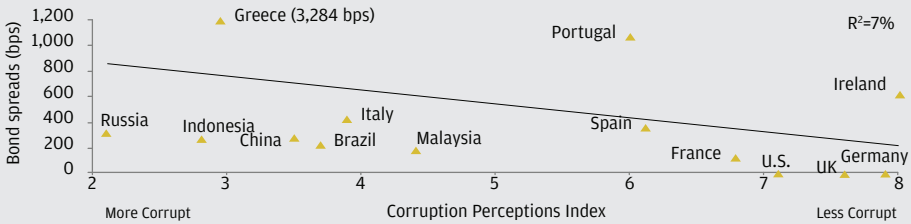
**Equity-implied Political Risk Premia versus Corruption Perceptions Index**



Source: Bloomberg, Transparency International, IMF, Economist Intelligence Unit, J.P. Morgan

Figure 4B

**Sovereign bond-based risk premia versus Corruption Perceptions Index**



Source: Bloomberg, Transparency International, IMF, Economist Intelligence Unit, J.P. Morgan

Note: Bond spreads based on J.P. Morgan EMBI Index, which is unavailable for India, Spain, Greece, Portugal, Ireland, Italy and France. Bond spreads for these countries estimated using the difference between locally denominated 10-year sovereign bond yields and 10-year U.S. Treasury yields, adjusted for IMF projected long-term inflation.

**EXECUTIVE TAKEAWAY**

A political risk premium measure based on equity valuations is highly correlated with proxies for political risk such as the Corruption Perceptions Index. In contrast, sovereign credit spreads are not as highly correlated with these measures, mainly due to ongoing stress in Europe.

## 5. Conclusions

- Global firms must be able to **measure political risk** in different jurisdictions
  - Overly conservative (high premia) adjustments can cause firms to miss important investment opportunities
  - Overly optimistic (low premia) can cause firms to overinvest and become overexposed to risks in some markets
- CAPM suggests country risks should not affect hurdle rates when political risks are diversifiable
  - In practice, reflecting such losses in projected cash flows is challenging and most decision-makers adjust the hurdle rates instead
- Not making any adjustment to the hurdle rates might not fully capture real long-term structural risks
- **No single method of estimating political risk is perfect.** Although sovereign credit-based methods may be the least imperfect, in certain circumstances they produce counterintuitive results due to the current economic environment:
  - Sovereign credit-based metrics such as bond-market spreads or country CDS levels are easy to obtain for large debt issuing jurisdictions, but there may be little correlation between sovereign credit risk and the risk of investment in firms in some of these jurisdictions
  - Using today's high CDS or bond spreads can overly penalize long-term investments in Europe because of what are hoped to be short-term political issues, but not using any adjustment for the stressed Euro-zone jurisdictions may not be appropriate either
  - Country rankings based on corruption or rule of law are intuitively appealing as measures of political risk, but are difficult to translate into market pricing
  - An equity-based methodology produces results in some jurisdictions that are more intuitive than sovereign credit spreads in today's environment. It may, however, be difficult to apply this method to certain emerging markets when no equity index is available, equity markets are illiquid, the index does not represent a broad range of sectors or robust projections for the index do not exist
- We may not be able to use the sovereign credit or the equity-based methodologies in some jurisdictions and circumstances (such as in small countries with limited sovereign debt and underdeveloped capital markets). In these instances, other regression-based approaches are available









J.P. Morgan

J.P.Morgan