



Understanding and evaluating sovereign risk

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Introduction

Sovereign risk, the risk of doing business within a legal jurisdiction, is in theory an easy concept to understand and measures of sovereign risk, such as credit ratings, are easily available. Managers and shareholders also often have strong views as to the riskiness of certain jurisdictions, which feed into the analysis of opportunities. So incorporating sovereign risk into the valuation of projects should be easy.

In practice however, sovereign risk becomes very difficult to define and the real risk to an investment depends heavily on both the industry and the company itself. In evaluating projects decision makers often ignore these nuances, relying more on the easily accessible measures and common understanding.

With the increasingly global nature of economics and business, companies must increasingly consider their specific situations and the potential risks involved with growth into new countries. In order to profit from their position in the market or even survive in their industry global companies will need to incorporate a more specific understanding of sovereign risk in to their valuations. Management teams must understand where their competitive advantage lies, not just in terms of customers and markets but also in relation to different political environments and their ability to leverage untapped markets, resources, or other natural advantages that a country may have.

We recommend a much more specific approach to political risk, one that considers both the unique situation that a country represents as well as a company's unique ability to manage that risk. Instead of working with generic measures we consider risks that are specific to a country – company – industry combination and involve local management in both assessing the risks as well as developing potential mitigation strategies. The end result is a more robust valuation which focuses the management discussion on pertinent risks and the likelihood of mitigation.

This paper outlines first the weaknesses we generally find in valuations, then goes through the process that we recommend.

Sovereign risk should be defined broadly in a way that is relevant to a company and its investment opportunities.

Definitions of sovereign risk vary dramatically from those assigned to specific asset classes (such as the risk of a foreign exchange transaction, or a bond investment in an emerging market) to measure of safety and security (such as where there is likely to be a war). We have often seen companies use credit ratings as a measure of sovereign risk. The principal rating agencies, Moody's and S&P, define sovereign risk as the risk that a country defaults on its debt, or the risk that a country's foreign exchange rate fluctuates in such a way to cause a decline in value for a specific investment.

All of the definitions we have found are valid but too specific. A broader definition is important because while defaulting on debt may or may not be important, so might war or changes in tax structures or any number of macro-economic events and these may or may not be related to defaulting on debt. A definition of risk that includes all macro events which are isolated to a country or region and have the potential to affect a company's business in that area is

much more meaningful. Within this definition sovereign risk can take many forms, including changes in tax regime, civil disruption, nationalization and even revolution.

Too Narrow a definition of risk has a number of weaknesses

While there is no blanket method for looking at risk and sovereign risk, most companies do tend to approach valuing projects and investments in a similar manner and very often rely on the present value of future cash flows. The discounted cash flow offers many advantages, the challenge is not to reinvent the DCF but rather to appropriately incorporate sovereign risk into the analysis.

The most common approach to incorporating risk into a discounted cash flow, even by some of the most sophisticated companies in the world, is to simply add a risk premium to the discount rate. More “risky” countries have a higher hurdle to pass with a few extra points added to the discount rate. Less “risky” countries are discounted at a lower rate yielding a higher value.

This is quick, easy and does require that projects in “risky” areas offer a greater reward in order to compensate for the additional risk. To add gradations of risk and bring some objectivity to the valuation, a more sophisticated analysis may even incorporate the credit ratings of the countries and use these to adjust the discount rate.

Adding a risk premium isn’t necessarily wrong, it is just incomplete. The problem with this approach is the oversimplification. Adding a risk premium based on credit rating or gut feeling does not allow management to consider how different types of risk affect the value of a project or whether the company itself may have a competitive advantage in a jurisdiction or have the capabilities to mitigate the risks that matter. There are four weaknesses in the discount method that need to be addressed in order to correct the valuation:

Weakness one: not all risks are created equal

When it comes to doing business within a country any number of things could happen. Some could be dramatic, while others could be much less important. Risks include war, tax increases, limitations on imports or exports, limited access to foreign reserves, changes to the legal environment and currency shifts to name a few. These risks are dramatically different – certainly a tax increase is eclipsed by the prospect of war. But since change is “risky” a country with shifting taxes and a country with the potential for war on the horizon could end up with the same risk premium.

Weakness two: not all projects are created equal

Some projects depend more heavily on local government than others. Coca-Cola sells products in most countries around the world, but is not always responsible for bottling. Selling Coke requires little fixed investment and Coca-Cola can pull out quickly if the government creates problems. Selling Coke is a low risk investment, not highly sensitive to sovereign risk. As a result Coke shouldn’t worry too much about sovereign risk when selling their product and, judging by the number of countries where Coke is available, they don’t.

If, however, Coke were to invest in a bottling facility this would carry more potential risk due to the fixed investment. In this case the company would stand to lose something if something went wrong in the host country.

So, the size of the investment plays a role when evaluating risk, but size isn't the only factor: a resources company considering investing in an iron ore or a diamond mine with the same investment size should consider the unique aspects of each product. An iron ore mine would rely heavily on infrastructure and government cooperation in order to move and sell product whereas a diamond mine would depend much less on infrastructure, but more on legal frameworks governing the sale of diamonds. The exposures and risks in each case would be very different.

There are clear trends within industries: mining risks will depend much more heavily on the local government than retail. Financial services will be affected by financial legislation and market regulation. Manufacturing industries will depend more on input costs and tariffs. Each company and industry should consider sovereign risk within the context of its own business.

Weakness three: not all businesses are created equal

The third critical element is to bring in the capabilities of the business itself. A management team with intimate knowledge or experience in a particular country would be much better positioned to understand and mitigate the risks in that country than a management team without understanding. They may also be better at mitigating some types of risks over other types of risks, which could be an important part of the equation.

Applying a blanket risk premium ignores these nuances and leaves no room for mitigation planning or thinking. Even if mitigation planning is considered it is generally not quantified and this leaves decision makers to decide on a project based on a discounted cash flow with a series of ifs, buts and perhapses.

Weakness four: Perceptions often trump reality

Some countries *seem* risk free while others *seem* risky. Public perception drives this view and a business applying a simple premium is likely to over emphasize the risk of those countries perceived as risky or unknown, while under emphasizing the risk in known countries deemed safe. But depending on the industry and the situation these rules could be completely backwards.

Take Australia for example – it is generally seen as very “safe” from an investment point of view, but recently the government proposed raising taxes to extreme levels on resources companies. This was likely to have a dramatic impact on resource company profitability. Meanwhile in South Africa, a country considered less safe, taxes have actually decreased (marginally) for resources companies.

There are many examples of changing rules and regulations in developed, safe, countries that could have a dramatic impact on industry and company profitability. Because of this investors and managers should consider the likelihood of events and the impact of those events on the value of the investments, regardless of jurisdiction.

A methodology for adjusting valuations for sovereign risk

When working with our clients we use a process that focuses on identifying external risk events, considering how they will affect the company and then adjusting the valuation accordingly. A management team should always follow this process regardless of whether the project is in a “risky” or “safe” country, because considering the possible policy effects should be a part of every large project valuation.

In general the process works best when adjusting the cash flows rather than the discount rate, but it can be applied to a discount rate as well. Modifying the cash flows is a more robust process, but often cash flows aren’t available in appropriate detail or with the necessary accuracy. In this case an adjusted premium would work reasonably well. Important is to be sure to account for the nuances of sovereign risk including mitigation, and not just apply the same rate to all projects.

The process for adjusting cash flows is:

1. Create a standard discounted cash flow valuation

In this first step the management team should create a discounted cash flow ignoring sovereign risk and focusing on the project itself. The discount rate should be the company’s cost of capital, or standard discount rate with no adjustment for sovereign risk.

If adjusting the discount rate rather than cash flows the starting point would be the company’s cost of capital minus the market risk premium.

2. Identify relevant risk events

The next step is to identify the relevant risk events using an external source. There are services that categorize risk events and calculate the probability of these occurring. One such service is the Global Risk Service from Global Insights, but there are others. Using an external resource helps because it provides an unbiased view from people who specialize in identifying risk; rather than valuing investments. Since this is their core competency they are probably going to be more correct than those who don’t look at risk full time.

3. Assess the impact of each event on project value

The project team should then think through each risk identified and assess the impact. If a risk event is a 10% increase in taxes in five

years, the team should calculate the cash flow effect of this increase in taxes. This is where the difference in projects and industries will play a major role since different events will have significantly different impacts depending on the business or industry. Here too, perceptions begin to fade out of the valuation: corruption may give a country a bad name but the type of corruption may not have a significant effect on the value of a specific project.

If applying this thinking to a discount rate, then the team would have to think about the additional premium each risk event would add to the discount rate. What is a 10% increase in taxes worth in discount rate? This can be done by calculating the change in discount rate that would make the change in taxes NPV neutral – though this may not always be feasible. Creativity generally plays a role in making these calculations.

4. Calculate the probability of a risk event

The project will be affected by each risk event only if it occurs. A risk like expropriation could kill a project, but maybe not if the probability is only 2% that expropriation occurs. Management teams and knowledgeable locals can provide good input in to this part of the process, though ideally the information will come from an independent source – the same one as in step two. Again, an independent specialized view is very useful here.

A second probability worth considering is the probability that the risk event would actually impact the product as described in step three. Perhaps corruption is likely and perhaps corruption could lead to a significant decrease in value – but while the probability of corruption would be high the probability of it impacting the project could be low.

5. Calculate the risk adjusted project value

Step three yields the value of a risk and step four yields the probability. Step five is simple multiplication: probability times value yields the expected value.

6. Develop a risk mitigation plan and revalue.

Finally the management team should develop a risk mitigation plan. This plan should clarify definitive steps aimed at reducing either the valuation of a risk or the probability that a risk will occur. This is where specific knowledge or understanding of a situation will come in to play. Once the plan has been put together the team can revalue the project to arrive at a mitigated risk valuation.

By following these steps a company can develop a much more robust valuation of a project. The process also allows the management team to develop and quantify a risk management plan. These values will not be perfect, but at least it provides a framework for discussion and it will give the decision makers a way to judge the project. If the risk adjusted valuation doesn't justify investment, but the mitigated risk valuation does then the decision makers can decide whether the risk mitigation steps and values are reasonable.

Risk Event	Project Impact	Mitigation	Risk Event Probability	Impact Probability	Total Probability	Mitigated Probability	NPV Impact	Mitigated NPV Impact	NPV Adjustment
Ownership of Business by Non-Residents (year 1-3)	Expropriation: Lose mine and cashflows	- involve government in investment - lobby government	10%	100%	10%	5%	(\$221.33)	(\$221.33)	(\$11.07)
Ownership of Business by Non-Residents (year 4-6)	Expropriation: Lose mine and cashflows	- no action	15%	100%	15%	5%	(\$129.00)	(\$129.00)	(\$6.45)
Ownership of Business by Non-Residents (year 7-10)	Expropriation: Lose mine and cashflows	- no action	15%	100%	15%	5%	(\$43.03)	(\$43.03)	(\$2.15)
Import Taxes	Tax on all imported goods increases 10%	- no action	30%	100%	30%	30%	(\$9.77)	(\$9.77)	(\$2.93)
Losses and Costs of Corruption:	Project delayed 18 months	- no action	60%	50%	30%	30%	(\$29.01)	(\$29.01)	(\$8.70)
Regulations—Exports:	Cash flows severely limited for long periods	- Off shore accounts - Forward sales	50%	90%	45%	45%	(\$52.23)	(\$20.00)	(\$9.00)
							Final adjustment to NPV:		(\$40.30)
							Project Base NPV:		\$170
							Risk Adjusted NPV:		\$130
							NPV based on 3% discount rate premium:		\$134

Figure 1 above shows an example of a risk mitigated valuation for a fictional Zimbabwe gold mine

Other Considerations

The steps and example presented above are simplified to demonstrate the process. When actually going through this exercise thinking about the timing of a risk event and how it will affect the project will be important as well. This adds complexity to the calculations but the process remains the same.

Likewise the team will need to consider the timing of the event in conjunction with the timing of the project. Events can happen:

- in the project construction phase
- once the project is completed and in production
- one time (i.e. expropriation)
- continuously (i.e. delays due to corruption)

Each has different implications and can yield different mitigation approaches. Often an options based approach to mitigation and project development, can help maximize the value of a project.

Conclusion

Applying a standard discount rate premium to cash flows is not sufficient to capture the impact of sovereign risk in a project. This can lead to both over and under estimation of valuation and risk. The oversimplification of a standard premium also does not allow for the quantification of risk mitigation plans or accounting of differences in industry / project and business competencies.

Applying a structured approach to all major investments, which adjusts the cash flows (ideally) or discount rate (alternatively) according to probability weighted risk events is a much more powerful approach. Estimating probabilities is not a perfect science and this is a weakness – but predicting the future is never a perfect science. But just thinking through mitigation plans and the real impact of possible risk events is a valuable exercise that can lead to much more robust valuations.

About the Author

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To Learn More

To learn more about how understanding and evaluating sovereign risk can help your organization.

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