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Breaking into New Markets

Valuation in Emerging Markets

Brian Crombie DBA Candidate December 10, 2010

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Brian Crombie

Introduction

With globalization, including increased foreign competition, global supply chains, off shoring and mobile capital; companies are looking more and more at investments in foreign countries and constantly faced with the question of how to do valuation in emerging markets. Whether doing investments, acquisitions, mergers, privatizations, joint ventures, restructuring, or just analysing daily business opportunities, companies regularly need to do foreign country valuations. While there is a plethora of literature and consultants on how to do valuations in domestic environments there is a surprising lack of help or consistent thinking on emerging market valuation. Emerging market investors face greater uncertainty, often more risk and obstacles but usually greater growth opportunities and the possibility of substantial returns, so understanding the risks and how to include them in valuation techniques is critical to growth and return oriented investors and businesspeople. McKinsey, the global consulting company and their valuation guru Tim Koller (2000) posits a concerning conclusion:

"Yet little agreement has emerged among academics, investment bankers, and industry practitioners about how to conduct valuations in emerging markets. Methods not only vary but also often involve making arbitrary adjustments based on gut feel and limited empirical evidence" (Koller 2000, page 80).

In 2002 Darden Business School held a colloquium on "Valuation in Emerging Markets," intended to address the confusion and substantial differences in the methodologies for valuation in foreign countries. The colloquium was held because they thought there was no clear single "best practice" unlike in developed markets where most academics and practitioners seemed to agree on one best approach. However, in emerging markets, practice varied significantly and "Even the writers of textbooks reveal substantial disagreement about fundamental issues, such as estimating the cost of capital for discounting cash flows in emerging markets" (Bruner 2002, page 2). The colloquim went on to state that coming to a better consensus was critical as foreign risks were substantial and varied, that investment flows internationally had grown dramatically and are expected to continue if not accelerate and that the returns to investment in those markets were substantial, both in private terms as well as social terms. So understanding the risks and the best way to analyse and value them is important.

In my twenty years in corporate development few issues have more perplexed acquisition oriented CEO's and Boards than how to value foreign opportunities particularly investments in emerging markets. I have seen and participated in long drawn out debates around the Board room table of political risk, assessments of who's going to win the next election and how that will change things, culture, business orientation, the risk of expropriation of confiscation and lots of fear. Valuation is sometimes thought of as a mathematical computer oriented science but to effectively assess all the things assumptions that need to go into a strategy and an associated financial projection, it's much more like an art – it certainly contains a lot of management judgement. Valuation, NPV (Net Present Value) and SVA (Shareholder Value Analysis) are confusing enough, but add in foreign currency, foreign inflation, political risk, hedging and just plain uncertainty and sometimes fear, and many a CEO will either just add extra points to his demanded return or not do the deal no matter the return. In 1996 I wrote an article called "The Seven Deadly Sins of Shareholder Value Analysis" where I argued that adding extra points to a demanded return was arbitrary, just caused good opportunities to be dismissed and was a self fulfilling prophesy as the company morphed into becoming a riskier company because it only invested in higher returning higher risk opportunities (Crombie 1996).

Some academics and writers have overly confused the issue of foreign investments with recommendations to perform detailed political risk assessments but how this impacts actual demanded return and the valuation mechanism is unknown and unexplained. While there are some current very valid disagreements with NPV and SVA (Martin 2010), performing foreign valuations can be dramatically simplified by merely using the home demanded return and adjusting for the differential in long government bonds. All of the foreign risk, political risk and country risk is determined on a minute by minute basis in the best assessment tool so far ever invented, the market. We can form a much better view on our business or our industry, and probably come to an assessment of the "black swan" type of very unusual possible event, too often not done in typical SVA, but one company can not and should not try to assess emerging country risk better than the market, no matter how smart the consultant or professor they can hire is. To do so risks under-investing in good international opportunities or worse, having the firm invest in only the riskiest and possibly highest returning countries and opportunities where the projected returns exceed the over estimated risk.

This paper will explore some current thinking on emerging market valuation, some recommendations on political risk assessment and recommend that the use of differential long government bonds is a very effective simple way of adjusting home costs of capital or demanded returns. However, we will also touch on two very valid criticisims of typical SVA, disregarding potential "Black Swan" like events (Taleb 2007) and chasing market expectations unsustainably (Martin 2010) and make recommendations to address these two issues. This paper will be of interest in academics studying entry into emerging markets as well as business people investing in those emerging markets.

Shareholder Value Analysis

Many of the shareholder valuation approaches used today are based on the framework detailed by Rappaport (1986) and included in a series of popular books on valuation by several McKinsey consultants (Koller et al 2005). These approaches recommend that a company perform a discounted cash flow (DCF) valuation of its projected cash flows using the appropriate weighted average cost of capital (WACC) and invest in opportunities as long as the net present value (NPV) is positive. Both approaches also try to simplify the valuation process into value drivers to better understand the sources of

value. For Rappaport (1986) the value drivers are: sales growth, profit margin, capital expenditures, working capital investment, tax rate, discount rate and competitive advantage period. Others simplify these value drivers further to EBIT margin, capital turnover and ROIC.

While the importance of projecting revenue, expenses and investments into the future is obvious and is performed by business people independent of any DCF analysis, as is understanding the drivers of the business such as profitability, growth or capital investment, the critical issue in the recommended shareholder value methodology is discounting those projected cash flows at an appropriate cost of capital to arrive at an NPV. Wide disagreement occurs on what is the appropriate cost of capital, an industry's, a company's, a project's, one with added points to ensure extra return, one based on short term risk free rates and equity risk premium or long term ones and esoteric discussions on how best to determine the equity risk premium over time, market leverage or book leverage and average leverage versus actual leverage. The confusion is based on limited or confused understanding of the Capital Asset Pricing Model ("CAPM") and its components, Beta, the market risk premium and the impact of leverage. These issues are dramatically increased when applied to the international environment or valuation in emerging markets.

Some academics have argued that excessive reliance on DCF based shareholder value analysis has caused American companies to be excessively short term oriented and because of high hurdle rates, bias companies against investment (Jagle 1999, Crombie 1997). Others have argued that it is the misapplication of risk that causes problems (Jagle 1999). With experience, partners and greater knowledge risk later in a project should decrease and therefore discount rates should as well, yet practitioners continue to use one discount rate throughout their projections. This is particularly a problem in emerging markets because as a investment is made the risk of the business and the involvement in that country declines dramatically. Some have suggested that foreign companies just must have a lower cost of capital when they proceed with investments in emerging markets that western companies would deem to risky. Maybe the problem is that the project isn't really too risky it's just the western company that has too high a cost of capital.

Weighted Average Cost of Capital

A quick review of the calculation of the weighed average cost of capital is as follows:

$$K_{WACC} = w_e K_e + w_d K_d (1-t)$$

- we = E/V = fraction of equity financing
- wd = D/V = fraction of debt financing
- *Ke* = Required return on equity
- Kd = Pre-tax cost of debt
 - (corp. bond yield + amortized flotation costs)
- t = marginal tax rate

The Darden Graduate School of Business published a note on "Valuation in Emerging Markets" (2003) that addresses some technical valuation issues such as:

- if you project in local currency then you can convert to USD using forward exchange rates. However, forwards are often only available for three years
- an alternative is to project in local currency but discount using a local discount rate
- if you project in nominal terms, with inflation, you need to use a nominal discount rate
- then assess the environment including information transparency, market integration, political, legal and social.
- Project cash flows being careful to being consistent on inflation, currency, tax and accounting, by using either all local or all home country.
- They then note that the estimation of the discount rate is the part of valuation that is most subject to both mathematical and econometric complexity and also massive simplifying assumptions and gut feel estimations.
- They present five different variations on the calculation of a WACC starting with the standard home country one, then based on the degree of integration between the emerging country and the global economy, increasing the local economic and political adjustments required.
- In the end they conclude that it is best to discount with a discount rate appropriate for the local economy taking into account local inflation, currency movements, interest rates and political risk and legal risk.

Valuation in Emerging Markets

Valuation in emerging markets is complicated by many risks including possible high levels of inflation, foreign exchange volatility, macroeconomic volatility or instability, domestic capital controls, foreign investment restrictions, political electoral or nonelectoral changes, civil unrest, regulatory issues, different legal system, corruption and war. Different understanding and assessments of these risks can lead different companies and investors to very different valuations. There are several different approaches recommended to including country risk assessment in valuation:

1. Probability weighted scenario analysis

Tim Koller (2000, 2005) who has written one of the most popular valuation books for McKinsey, argues that the best way to incorporate country risk into a valuation is to explicitly assess the probability of various scenarios existing, multiply expected cash flows by the impact of those scenarios and calculate a weighted average or expected value of the opportunity. He describes this as incorporating political risk in the numerator of the valuation. He recommends starting with macroeconomic factors such as inflation, GDP growth, foreign exchange rates and interest rates, and then assess the impact of those scenarios on the project's cash flow to create several scenarios for the financial projections. Cash flow projections that will be impacted by these types of estimates are revenue, revenue growth, expenses, working capital, capital expenditures and interest rates on debt. Next the same assessment needs to be made for the industry scenarios which will be impacted by both competitive pressures and political and macroeconomic actions. Koller (2000) specifically recommends that "When constructing the model, make sure that the industry scenarios take the macroeconomic environment into consideration" (Koller 2000 page 85).

Koller (2000) does not recommend including any emerging market political risk in the discount rate, or the denominator of the valuation. However Koller does say that the discount rate needs to be adjusted for several items including industry specific risk, the foreign capital structure and the difference in inflation rates. Each of the different projected scenarios should be discounted at this adjusted discount rate. I'm not sure what this discount rate is though, is it a domestic WACC (weighted average cost of capital) adjusted for emerging market inflation, industry risk and capital structure, or is it an emerging market discount rate. He doesn't explain exactly how the WACC should be adjusted for different inflation rates. I would include different inflation rates in the projections of sales or in other words, in the numerator.

Finally, Koller (2000) recommends weighting each scenario by its estimated probability and arriving at an expected value. In the several cases he uses he shows how in each, three scenarios were projected with a base case receiving between a 33 and 50% probability assessment and then two other cases, a downside and an upside case, each with lower probabilities. In my experience, many of these types of scenario projections end up with an expected value of the three cases surprising close to what the base case projection originally was. This is likely given the tendency many managers have to estimate in a bell curve kind of manner, with the base case being the most likely and two extremes, high and low, being far less likely and tending to cancel either out. More concerning is that the most critical but hardest to argue about estimate is the probability assessment of each case – it's a gut feel management call. Lots of effort, benchmarking and thinking goes into projecting market share, pricing, expenses, capital expenditure and numerous other parts of the cash flow projection and then everything is changed by a given probability assessment which is hard if not impossible to accurately project. Koller argues that "these scenarios don't just confirm the market's valuation of companies; by pinpointing specific risks, they also help managers make the right decisions for those companies" (Koller 2000, page 85). I don't understand this because if it's a political risk what changed management decision is available other than don't invest. In comparison, scenario analysis of the industry and company risks I completely agree with as judgements can be made on sectors to invest in, pricing to take, expenses to incur, all of the critical items managers are responsible for. Managers aren't responsible for political risk and likely can't change it, they need to live with it and decide if the return is worth the risk.

2. Adding a country risk premium to the discount rate

An alternative approach dismissed by Koller (2000) but used by many is to incorporate a country risk premium in the denominator of the valuation analysis by adding a country risk premium into the discount rate. This makes intuitive sense to me as the idea of

adding an equity risk premium to the risk free rate is a basic part of the WACC calculation. Here all you are doing is adding a higher risk premium, one for equities and one for investing in a different political environment. The equity risk premium is indifferent to what industry the project is in, that's reflected in the cash flow projections in the numerator, but is appropriate for any equity risk. Koller dismisses this approach by using one example where he comes up with a valuation of a company far different than the current market value with an adjusted discount rate where his probability assessed scenario analysis came far closer. We are not shown any market value changes after the fact to see if maybe the valuation was better than the market estimate and he is not explicit on how he adjusted the discount rate, but we are asked to trust his assessment.

In comparison using the interest rate differential in long government bonds is intuitively simple and satisfying. An emerging government bond, discounted at the demanded interest rate on the day it's issued will equal the value of the bond. As the riskiness of the government based on a multitude of factors including but not limited to: inflation, local interest rates, currency movements, macroeconomic volatility, civil unrest etc. changes, the market demanded return will adjust and the value of the bond will adjust. This is the product of thousands if not millions of investors in the market assessing the political risk of the country. How can Koller with three scenarios and three probability assessments equal this market judgement of political risk in an emerging country?

Many of the most obvious risks are unquestionably incorporated into the long government bond demanded return. If the bond is denominated in the local currency then the demanded return will have to compensate the investor for the assessment of local inflation. The bond will have to compensate investors for the riskiness of investing on one government bond versus a competing government bond or particular country's credit riskiness. If the projections are done with estimates of local inflation, discounted back to the present with a local discount rate, then future estimates of foreign exchange are not needed because they are effectively incorporated in the difference between the foreign discount rate and the home country discount rate.

So what is not incorporate in the difference in long bonds? Political risk is in the local government credit risk. Different assumption on macroeconomic policies would be included in the demanded return to compensate for market expectations about inflation, money supply, foreign exchange rates etc. Taxes would be included both in the cash flow projection as well as in the WACC calculation. If there is knowledge of or an expectation for changed taxation that would need to be explicitly incorporated but would in domestic WACC calculations as well. What wouldn't be incorporate is explicit industry specific risks such as the risk of laws changing, or new regulation, or expropriation, which would be far better done explicitly in the cash flow projections just as they would be done in any domestic company valuation.

3. Political Risk Assessment Frameworks

There are numerous emerging market risk assessment frameworks that have been formulated including SWOT (Strengths, Weaknesses, Opportunities and Threats) or PES

(Political, Economic, Social) or several others including the CAMEL model, the Zonis model, and the Bank of America model (Alon et al 2004). These models are all excellent frameworks for looking at, describing, analysing and assessing the risk in different emerging markets. But how do they help you do valuations in emerging markets? These models are excellent ways to think through issues but I don't see how you can summarize them and reflect them in either a probability assessment or a discount rate, other than through large management judgements or gut feels.

Discussion

In the Darden colloquium on Valuation in Emerging Markets (2002) six different research presentations addressed the estimation of the cost of capital and valuation in emerging markets. One asset pricing approach used at Salomon Smith Barney was described where the sovereign risk premium was used as the differential in discount rates in emerging market risk assessment and valuation. Another presenter proposed a model based on downside risk, and replacing beta with a downside beta (the downside variation of a stock from the market, not all volatility) when estimating the cost of capital in emerging markets. A third identified various dimensions of risk in the world economy and argued that each dimension could be priced differently, and summed into the total required rate of return. A further one provided an overview of the approach used by Goldman Sachs which adjusts the risk-free rate and the risk premium driven by global, country, and firm specific factors. Survey results about valuation practices among corporate investors in Argentina showed that 89% of Argentine firms value assets using the discounted cash flow method and only adjust based on differentials in interest rates. A final report using data on individual stocks in 21 emerging markets found that variability in returns were similar to those of developed markets. Finally, the relationship between risk ratings and sovereign spreads were shown to be very close suggesting that spreads are a good estimate of rating agency assessed risk, and when they are not, they tend to each other thereafter.

Some of the insights summarized from the Darden colloquium are:

- The cost of capital varies between global and local firms in emerging markets.
- The cost of capital in emerging markets may be smaller than is usually thought.
- The cost of capital is changing over time and across business cycles and crises.
- The cost of capital is fundamentally a bet on market integration and globalization.

 \cdot Information quality and the estimation of model parameters remain significant issues. Source: Bruner et al 2002.

Bruner et al (2002) conclude their summary of the colloquium with an unhelpful question and conclusion: "What model will become the benchmark for estimating required returns in emerging markets? Both professional advisers (such as Goldman Sachs and Salomon Smith Barney) and some academic researchers seem to favor simple models that are relatively easy to apply. However, the general discussion at the same time seemed to favor richer approaches that recognize the risks specific to each market. Obviously, more research is needed before a normative stance may be adopted" (Bruner et al 2002, page 10). The colloquium obviously didn't come to a conclusion. Bekaert and Harvey (2002) at the same colloquium presented a paper that summarized two theories, one of international market segmentation and another of international market integration. They show that those theories argue that in a segmented market, insulated from international business and capital, assets will be priced based on local market returns and a local beta. Given high local risk, local returns are logically higher than international ones. However, in an integrated market it is the international beta and market risk premium that is relevant and local demanded returns will decline and local values increase as risk is reduced. The issue for emerging market valuation is where is the emerging market, complexly segmented from the global market or integrated with it? They go on to argue that international market integration is a process not an event, often exists before regulatory changes confirm it and is best estimated by the existence of significant international equity flows into the emerging market.

Bekaert and Harvey (2002) go on to show that there exists substantial correlation between market and industry returns globally, that increase with integration. Some integration is a producer of future integration since as risk premiums come down, demanded returns decline, asset prices increase attracting substantial additional investment and further reductions in risk, and demanded returns and further increased prices – a virtuous wealth producing, risk reducing, integrative cycle. They also point out the inverse impact, increased contagion, as a negative event happens in one country, such as a financial crisis, there is increased probability that crisis will spread with increased integration.

The Problem with Expectations

Roger Martin (2010) the Dean of the Rotman School of Business has recently made a few speeches criticism shareholder value maximization and the granting of options to senior executives as the defining mistake in the last three decades of capitalism. He is publishing a book in the spring of 2011 on this topic. His argument is based on the conclusion that it is impossible to always beat market expectations, and if executives are incentivized with options, to make money, that's what they need to do. He uses as an example football and the question, do we want our football teams to win or beat the odds that Vegas set for them. He showed the New England Patriots winning every game and going on to win the Super Bowl but half the time, not beating the spread established by Vegas bookies. If they were paid in options like CEO's they wouldn't do well, but as football coaches and players they were Hall of Famers. The problem is not sales and profits, its sales and profits greater than the market expects, and always continuing in excess of new now higher market expectations, is not sustainable.

I confronted Dean Martin at a recent speech and asked if this meant we should throw out NPV and SVA to which he responded no, Beta still made sense as did the demanded return on equity and debt, but why did we have to weight them by the current market value of equity, wasn't that based on expectations not what the original investors really wanted. I thought about it and suggested debt might be a good example to think about. A bank needed a certain return but if the company became less risky or more risky did the bank want a different amount paid back? No, they just wanted the agreed upon interest

and principle. So Martin, a sizeable current critic of SVA would still use it, just use book not market values for weighting purposes and don't pay executives in options.

The Impact of the Highly Improbable

Taleb (2007) wrote a provocative book about Black Swan events and criticised the tendency of economists and finance people to believe in bell curve shaped outcomes when often we had these highly improbable events such as financial crises that occurred. One of the biggest problems he argued is believing that by probability weighting different scenarios we are giving ourselves a false sense of security. The issue is not that one scenario has a certain probability of occurring and averaging that into our expected outcome, it should be if that low probability event, but still greater than zero probability event occurs, can we survive it and / or profit from it.

The implication of Taleb's insight is that the process McKinsey recommends of coming up with several scenarios and probability weighting them to arrive at an expected value scenario is not as helpful as understanding how we would manage through the downside case. Taleb (2007) would argue therefore that we should consider what those highly improbable events are and think through insurance for them. Taleb (2007) argues that in all business decisions there are highly improbable events, currency devaluation, financial crisis, banking crisis, housing bubble bursts etc. that need to be considered and insured against and leveraged profitably to, if possible. In valuation in emerging markets it would therefore not be helpful to average in the say 10% chance of civil war but better to think through if that 10% chance scenario occurred how the company would deal with it.

Conclusion

Companies when valuing an opportunity in an emerging market should use the differential in long government bonds as the best assessment of the political and economic risk in one country versus their home country and add that difference to their home country WACC when discounting the emerging country business opportunity. The market on a daily basis when buying and selling government bonds is the best place to assess political and economic risk. The company can and should have a better ability to project and assess the opportunities for its company and its industry, but the market is better at assessing the market. Industry or company specific risks should be factored into the cash flow projections rather than being hidden in the difficult to understand and challenging to debate, discount rate.

To the extent that an emerging country is not well integrated into the global economy the analyst should look at local Beta's to see if local companies in the same or similar industry trade at significantly different Beta's versus in the home country. Similarly, it would be worth analysing if the local market risk premium and the cost of debt of a local similar company is significantly different than that for the company in its home country. However, with continued market integration and with continued corporate experience in that environment, the global or home country valuation metrics and the local ones should and will converge. Unless a compelling reason can be given to why in this case local risk

truly is different and not reflected in the difference in long government bond interest rates, I'd recommend just using the interest rate or credit risk difference in the long bonds.

Martin's (2010) criticism of the problem with always keeping up with market expectations is compelling and an intriguing critique of the problems of the past decade or so in corporate management, earnings manipulation, short termism and CEO burnout. But the simple solution here, which I think is justified, is to use book value of equity and debt in the weighting of the cost of equity and debt, in the weighted average cost of capital. I find Martin's (2010) argument compelling that we should return the investors that gave us their money, their required return, not the investors that bid up or down that investment. This would be consistent with wanting a football coach to win the game but not requiring him to beat the spread.

I also would highly recommend that in valuations in emerging markets particularly, as well as in all valuation, Taleb'a (2007) warning of highly improbable events actually happening is critical. We only have to look back at the last three years to know that we'd all be better off if people had insulated themselves against a housing bubble bursting. In emerging markets thinking through what those risks might be, financial crisis, banking crisis, expropriation etc, might lead us to logical strategies such as foreign country debt financing on a nonrecourse basis and local partners.

In our seminar back in the fall Disney and its investment in Paris, France at EuroDisney came in for some criticism. I worked at Disney from 1988 to 2000 and worked on the financial structure of EuroDisney. EuroDisney was financed with a significant amount of local European debt, non recourse to Disney and a substantial amount of local equity was also sold off. Disney enjoyed a significant licensing and royalty fee as well as management contracts and product sales. Disney insulated itself well financially from local risk. In fact when EuroDisney came into financial challenges, Disney was criticized for how smart it had been in insulating itself and how all the locals lost money while Disney still booked its fees. Disney could chose, and did so chose, to put more money into EuroDisney, rather than being forced to or losing its original investment. It would have been far better to have never suffered the financial challenges, but given that they came, and they almost always do sometimes, its far better to be well insulated.

In my experience with international, particularly emerging market investment, the choice of an appropriate discount rate is the most confusing, often the most important mathematically and the least understandable and debateable. CEO's and Board members will debate the market share assumption, the pricing, the profitability projection, but then glaze over when the hot shot MBA tells them what discount rate they are using. By consistently using the home country discount rate adjusted by the differential in long government bond demanded interest rates, and putting all other assumption in the transparent cash flow projections, business would be well served and companies would make more and better foreign emerging market investments. The only other confusing thing in emerging market or any valuation is terminal value calculations, but that needs another paper!

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