iiBV March 29, 2019 Webinar – International Discount Rates

Moderator:

- Michael Badham, Executive Director, International Institute of Business Valuers

Panelists:

- Luís Eduardo Pereira de Carvalho, Setape, São Paulo, Brazil
- Anton Lezhja, Value Consulting shpk, Tirana, Albania
- Carla Nunes, Managing Director, Duff & Phelps, Philadelphia, Pennsylvania, USA
- Rajeev Shah, CEO, RBSA Advisors LLP, Mumbai, India
- Andrew Strickland, Scrutton Bland, London, United Kingdom

Presented below as background is a hypothetical manufacturing company WACC calculation located in North America.

Comparable Company Data	Exchange	Ticker	Beta - S&P 500 monthly	Market Value	Debt	Debt/ Equity	Debt/ Capital	Unlevered Beta	Relevered Beta
				USD - millions				Hamada Formula	
PPG Industries, Inc.	NYSE	PPG	1.20	$25,287.3	$3,883.0	15.4%	13.3%	1.07	1.35
Magna International Inc.	TSX	MG	0.91	16,761.5	3,750.0	22.4%	18.3%	0.78	0.98
Lear Corporation	NYSE	LEA	1.09	8,528.7	756.9	8.9%	8.2%	1.02	1.29
Axalta Coating Systems Ltd.	NYSE	AXTA	1.09	5,929.8	3,301.7	55.7%	35.8%	0.77	0.96
Linamar Corporation	TSX	LNR	1.06	2,744.0	1,613.5	58.8%	37.0%	0.73	0.92
Bodycote plc	LSE	BOY	0.95	1,931.1	-	0.0%	0.0%	0.95	1.20
AZZ Inc.	NYSE	AZZ	1.08	1,155.3	286.5	24.8%	19.9%	0.91	1.14
Median			1.08	$5,929.8	$1,613.5	22.4%	18.3%	0.91	1.14
Average			1.06	8,905.4	1,941.7	26.6%	18.9%	0.89	1.12

Capital Structure		
Equity	75.0%	
Debt (Rounded Median)	25.0%	
Debt / Equity Ratio	33.5%	
Weighted Average Cost of Capital - CAPM		
Cost of Equity		
Risk Free Rate	2.9%	- 10 year median of United States 20 year Treasury yields
Selected Beta	1.14	
Add: Equity Risk Premium	6.0%	
CAPM Estimation	9.7%	
Add: Size Premium	5.4%	
Add: Additional Risk Premium		- Assumed no additional company risk premium to simplify case discussion
= Cost of Equity	15.1%	
Cost of Debt:		
Pre-tax Cost of Debt	5.2%	- Moody's Bond Yield Avg. - BAA Rated Corporates
Tax Rate	22.8%	
= After-tax Cost of Debt	4.0%	
WACC	12.3%	
WACC (rounded)	12.5%	
Conclusion	**12.5%**	

As a panelist you are asked to comment on how you would approach estimating the company's WACC in your geographic region, assuming your valuation conclusion is your home currency, under the following two scenarios:

Scenario 1

Assume the company is a domestic manufacturing business:

- The subject company has no exports or imports of goods outside the domestic country,
- The business lives and dies by the domestic economy only – assume no country diversification,
- The only currency involved is the country currency – there are not observed currency hedges at work (goods or currencies),
- What impacts would the above scenario have on estimating the domestic company's WACC within your market, e.g.,:
    - cost of equity
    - after-tax adjusted cost of debt
    - debt in capital structure

Scenario 2

Assume a similar manufacturing business located in your geography now with the following characteristics:

- The subject domestic company has 70% exports to a major integrated economy, like the US. It also imports sub-assemblies from that county,
- Business success depends mostly on non-domestic factors,
- The manufacturing sector is influenced by regional and global factors, e.g., there are regional trade alliances with neighboring economies,
- The business routinely deals with currencies that are both domestic and foreign. There are natural currency hedges at work in the flow of goods and currencies for this business,
- Again, what impacts would the above scenario have on estimating the company's WACC, e.g.,:
    - cost of equity
    - after-tax adjusted cost of debt
    - debt in capital structure