

Automobiles & Parts

PIAGGIO S.p.A.

Politecnico Student Research  
Global Investment Research Challenge 2011



# Company Overview

- Largest manufacturer of moped, scooter of 2w and LCVs by revenues

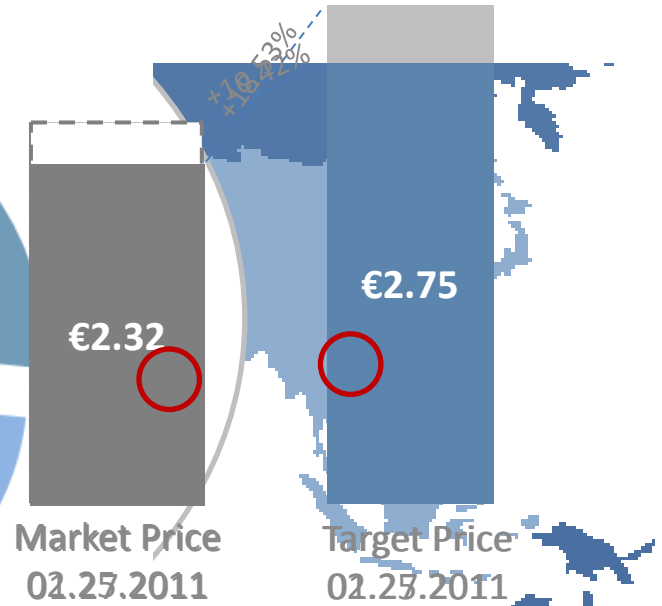
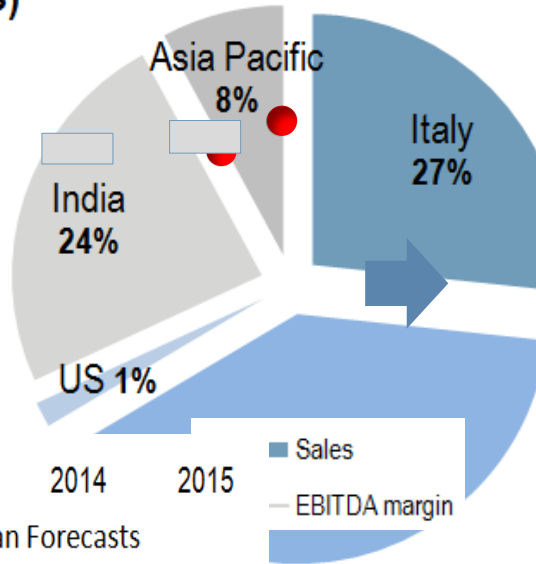
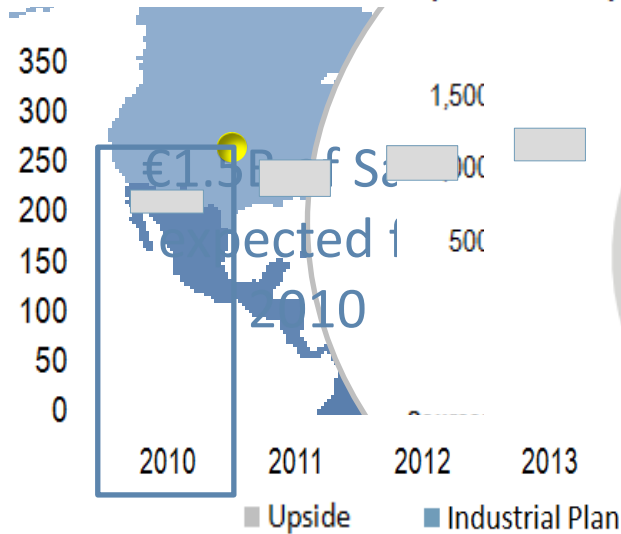


# Company Overview

- ~~Geographical Breakdown~~ **Technology Breakdown**

... and our rating

Indian LCVs volumes ('000 units)



ACCUMULATE

- **Production Facilities**
- **Increase both in Ebitda margin**
- **Distribution Network**
- **Joint Venture**

Source: company data (Q3-2010)





WHY INVEST IN PIAGGIO



# Why invest in Piaggio

1. Launch of new products in **India**

2. Expansion in **South-Eastern Asia**

3. Efficiency gains in **Europe**

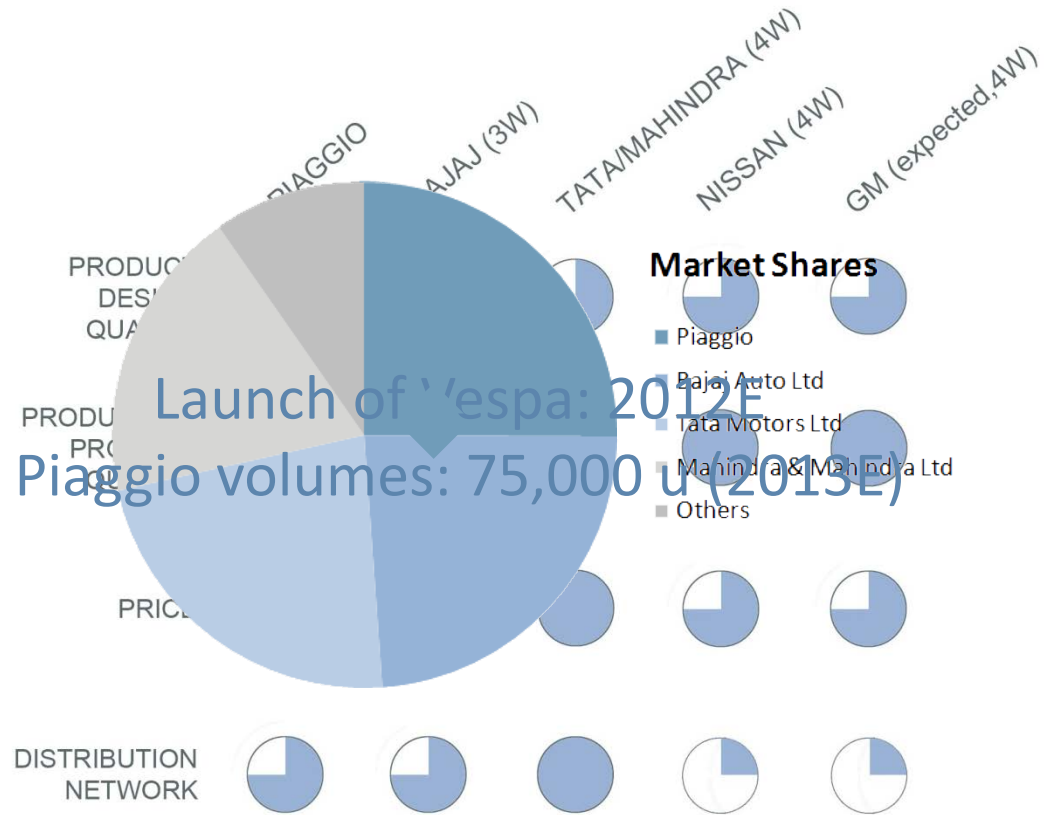


# Why invest in Piaggio: New products in India

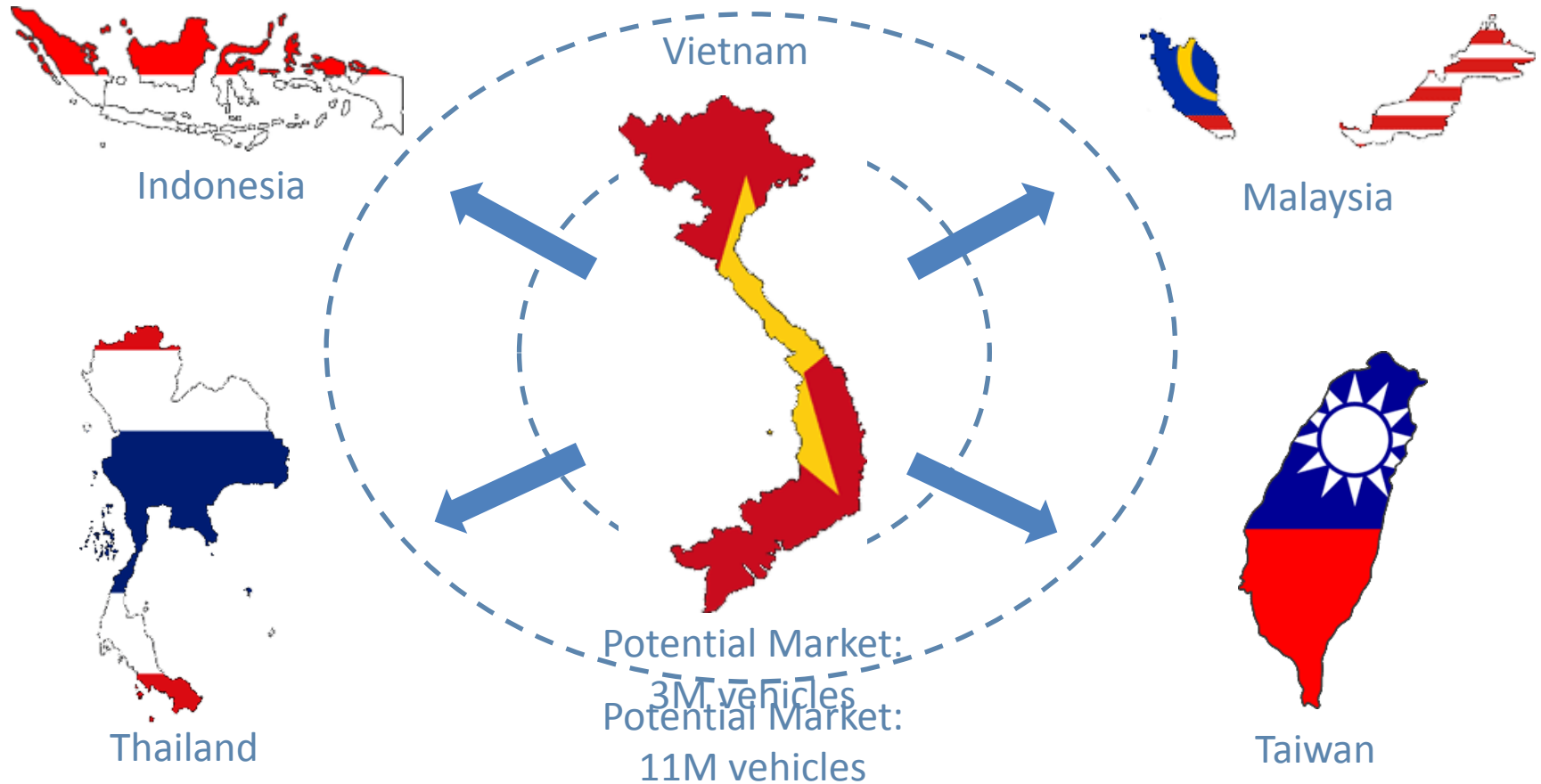
3w



4w

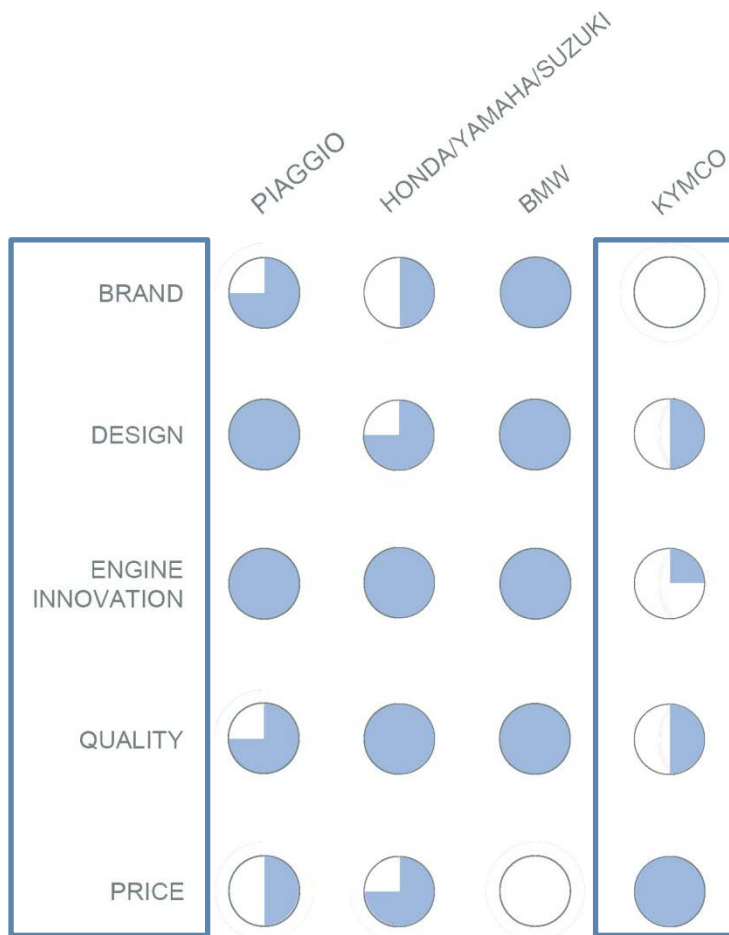


# Why invest in Piaggio: Expansion in Asia

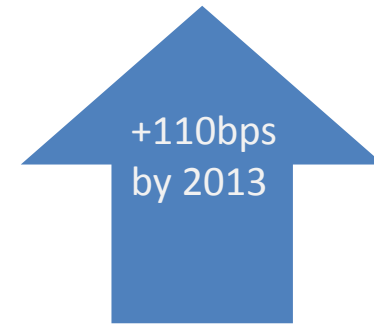




# Why invest in Piaggio: Consolidation in Europe



European  
EBITDA  
Margin



- Improvement of global sourcing position
- Production plants rationalisation
- Synergies in the distribution network

Company  
Overview

Why invest  
in Piaggio

Financial  
Analysis

Valuation

Risk  
Analysis

Data and  
Charts



# Financial Analysis

## Income Statement

### Balance Sheet

8.1% Revenue

18.9% EBITDA

12.5% EBIT

Ability to meet

Lower

~€520M

~€310M

~€60M

Current ratio

Solvency ratio

2010 E 2011 E 2012 E 2013 E

Source: Politecnico Estimates

### CAGR 10-13

	2010 E	2011 E	2012 E	2013 E
Debt	€510M	€475M	€450M	€400M
Cash&other	€165M	€140M	€130M	€100M
NFP	5M	€335M	€320M	€300M
Equ	6M	€47	€207M	€233M
Fin				

~€310M

~€60M

Current ratio

Solvency ratio

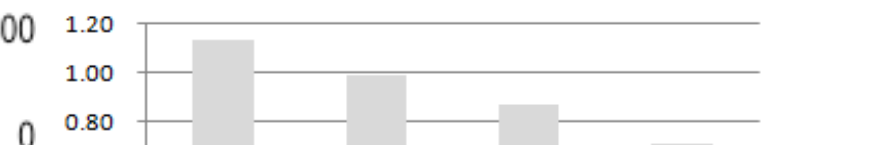
2010 E 2011 E 2012 E 2013 E

Source: Politecnico Estimates

	2010 E	2011 E	2012 E	2013 E
Div. from DMs	€1350M	€1350M	€1820M	€1955M

	2010 E	2011 E	2012 E	2013 E
Div. from DMs	€1350M	€1350M	€1820M	€1955M

Deleveraging



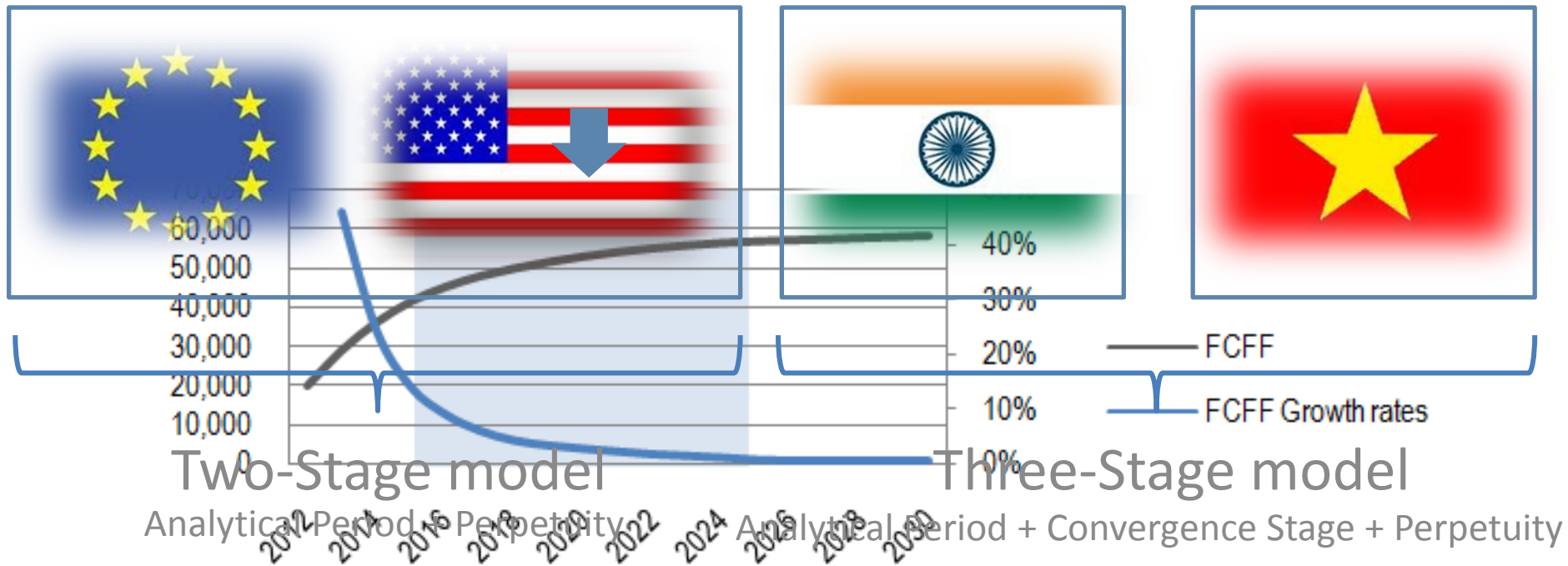
Source: Politecnico Estimates





# Valuation: Discounted Cash Flow

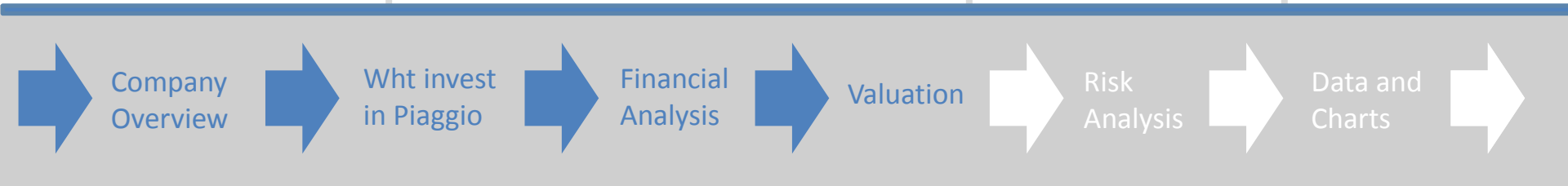
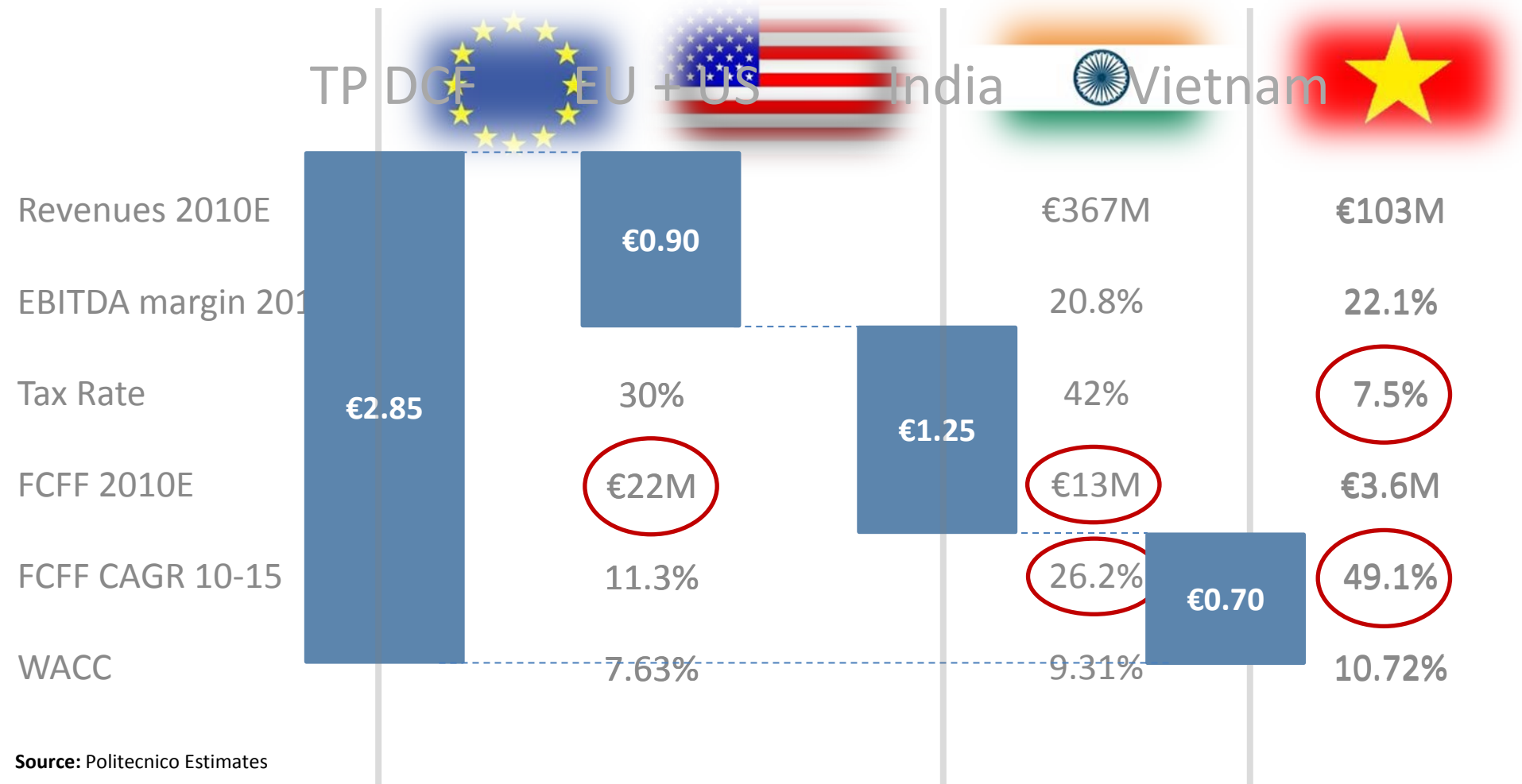
- Sum-of-the-part approach



Source: Politecnico Estimates

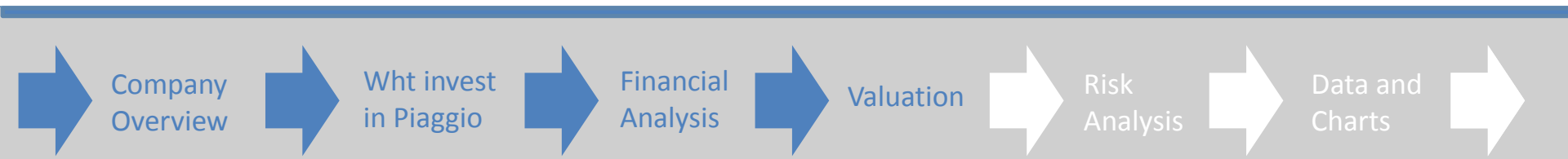
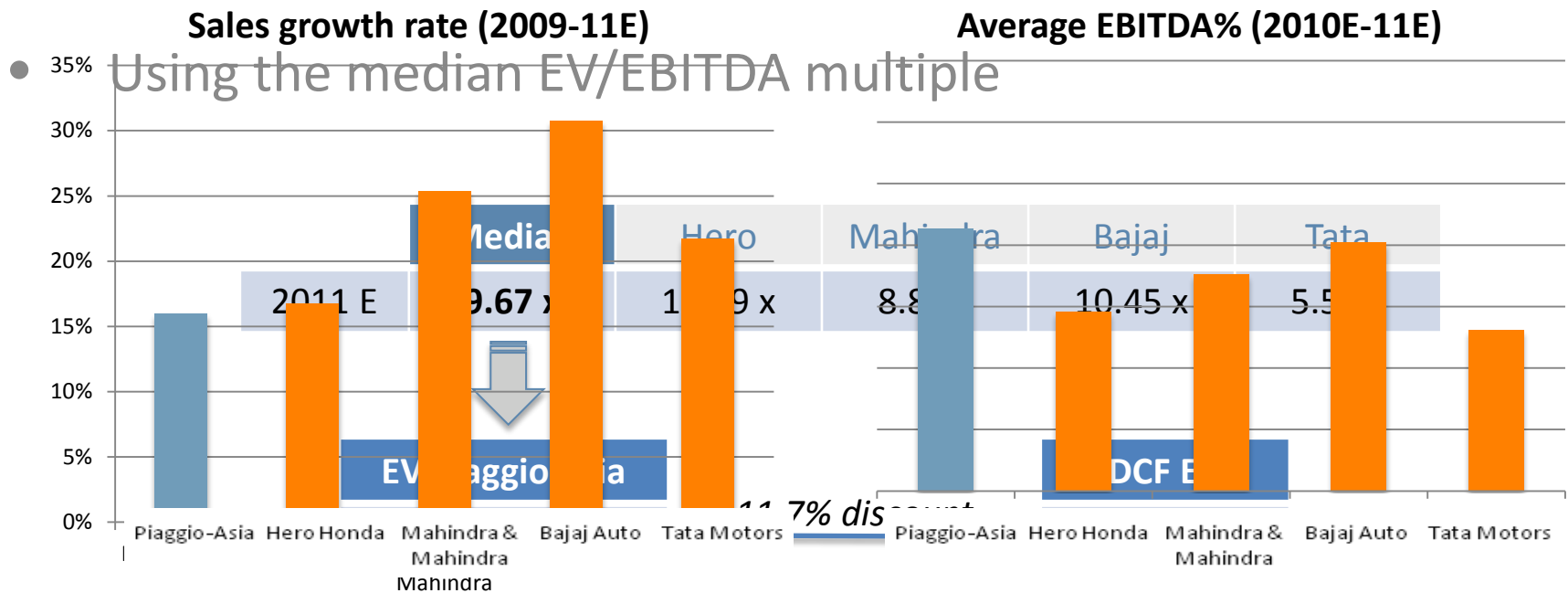


# Valuation: Discounted Cash Flow



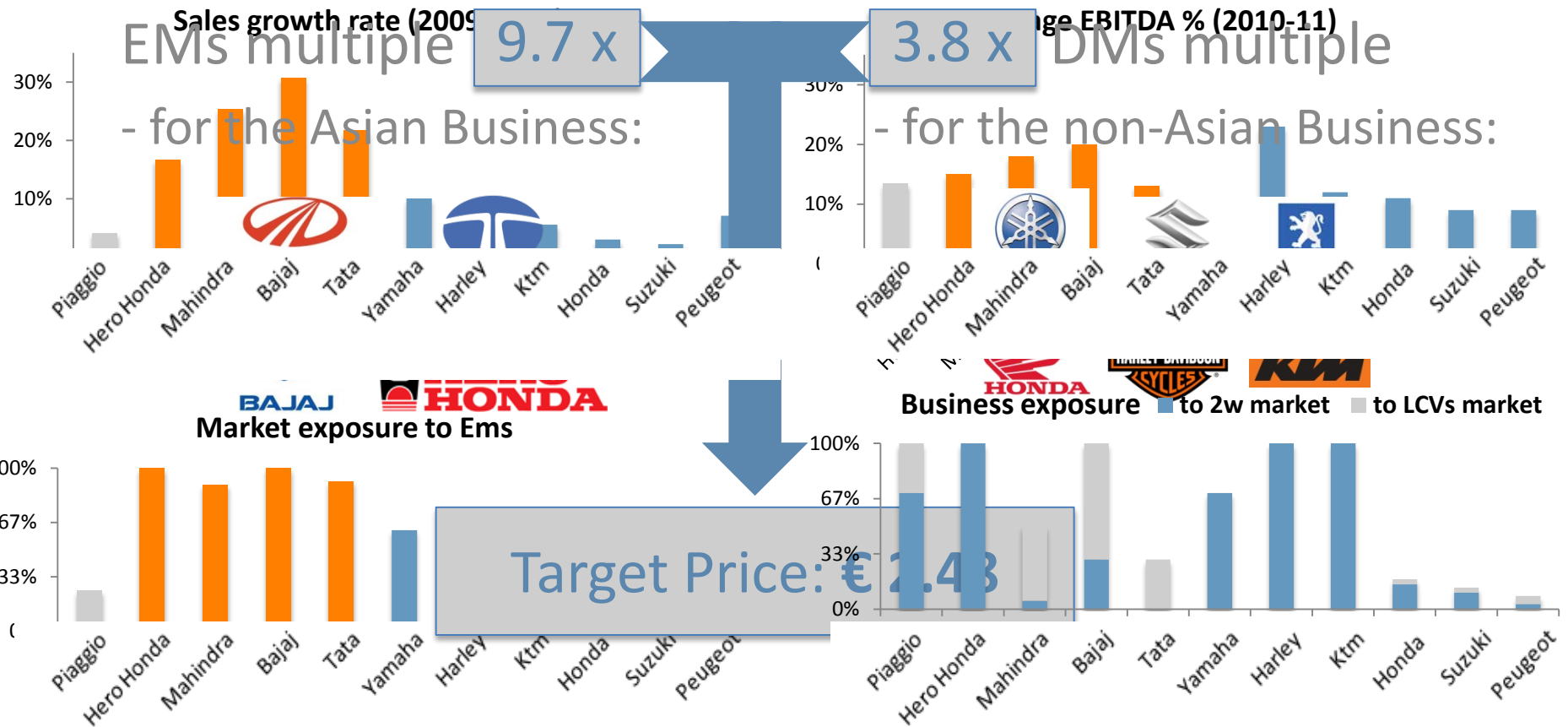
# Valuation: Multiple Analysis

- Piaggio's Indian and Vietnamese businesses are comparable to its Indian peers



# Valuation: Multiple Analysis

As regards the whole Piaggio Group (EV/EBITDA multiple):





# Valuation: Target Price

- DCF Analysis:

€ 2.85

70% weight

- Multiple Analysis:

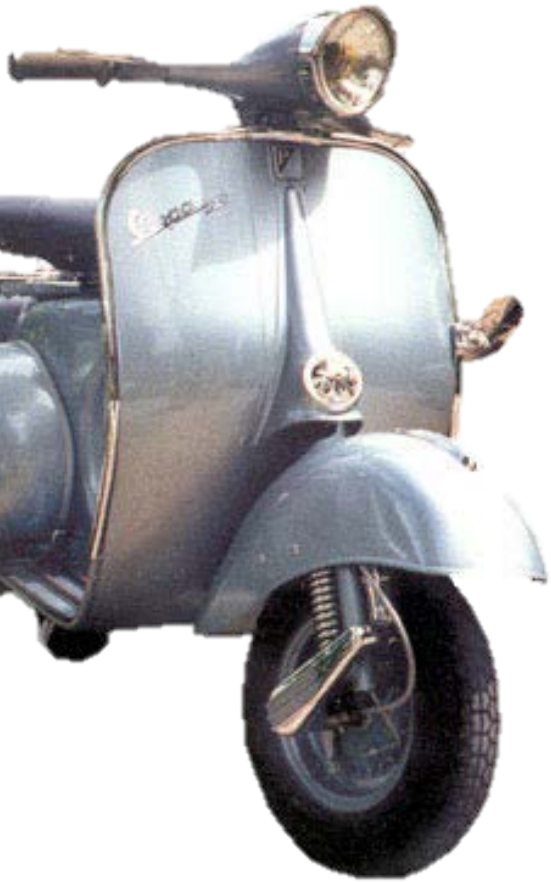
€ 2.48

30% weight

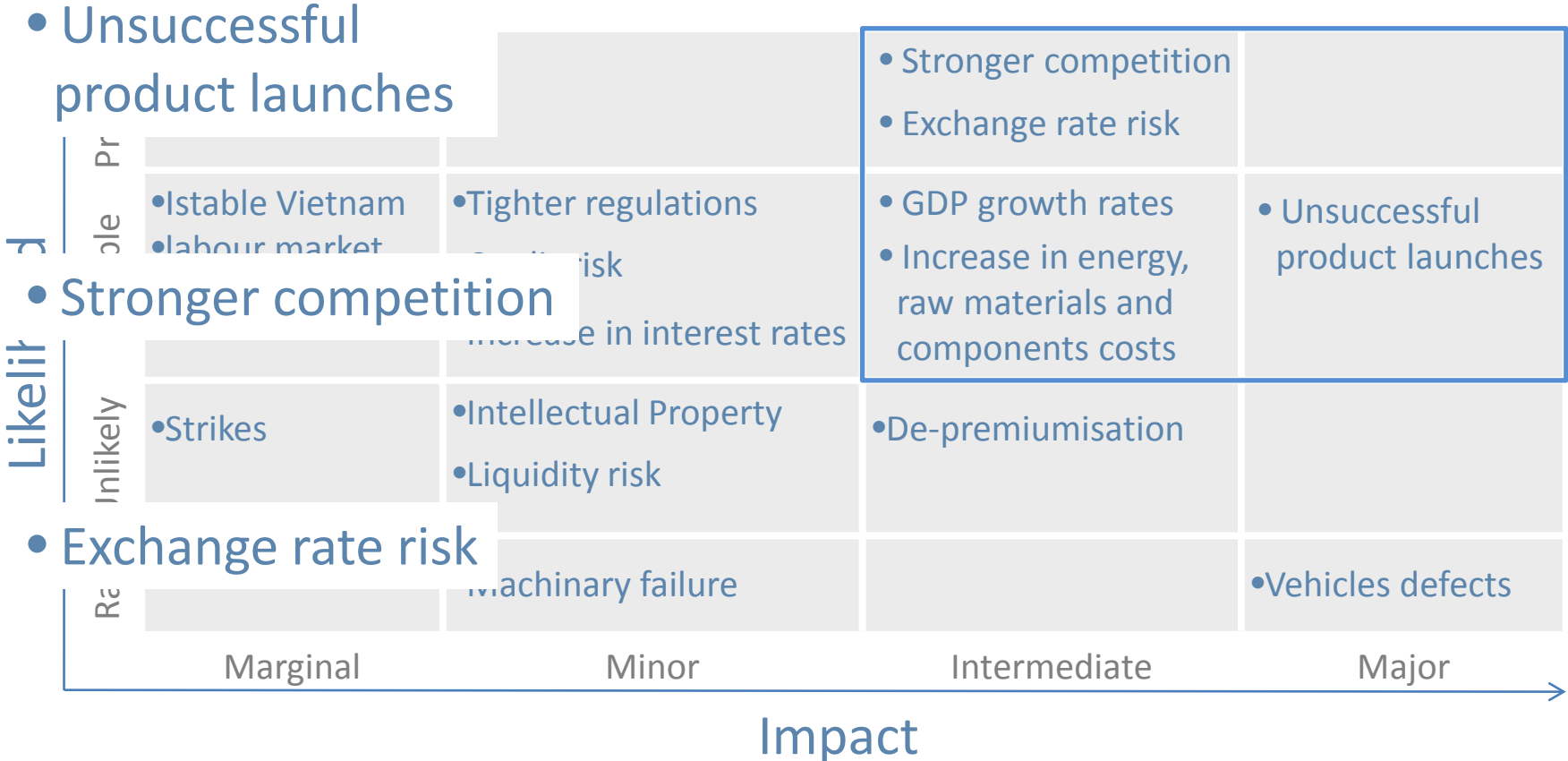
- Year-end Target Price:  
(upside > 15%)

€ 2.75





# Risk analysis: Risks from Asia

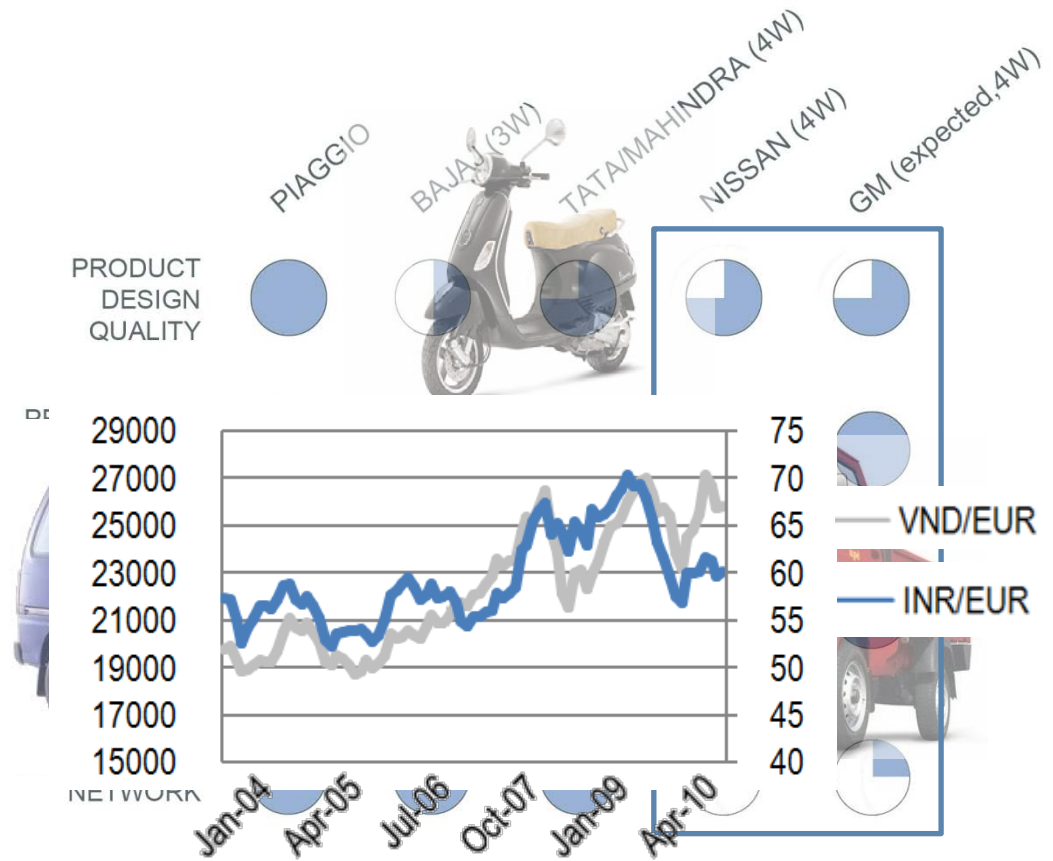


Source: Politecnico Estimates



# Risk analysis: Risks from Asia

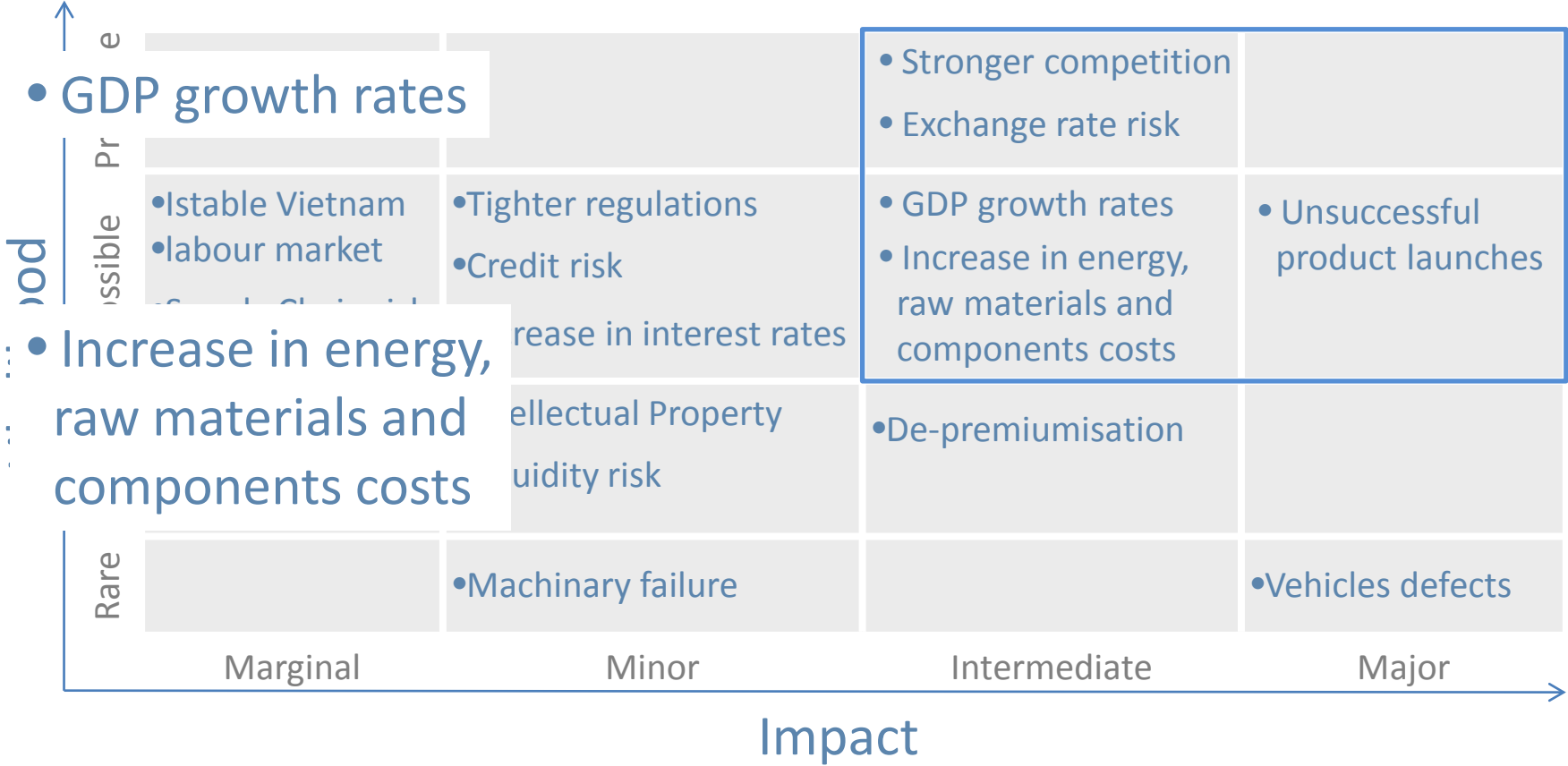
- Unsuccessful product launches
- Stronger competition
- Exchange rate risk



Source: Politecnico Estimates  
Source: Pacific Exchange Rate Service



# Risk analysis: Global risks

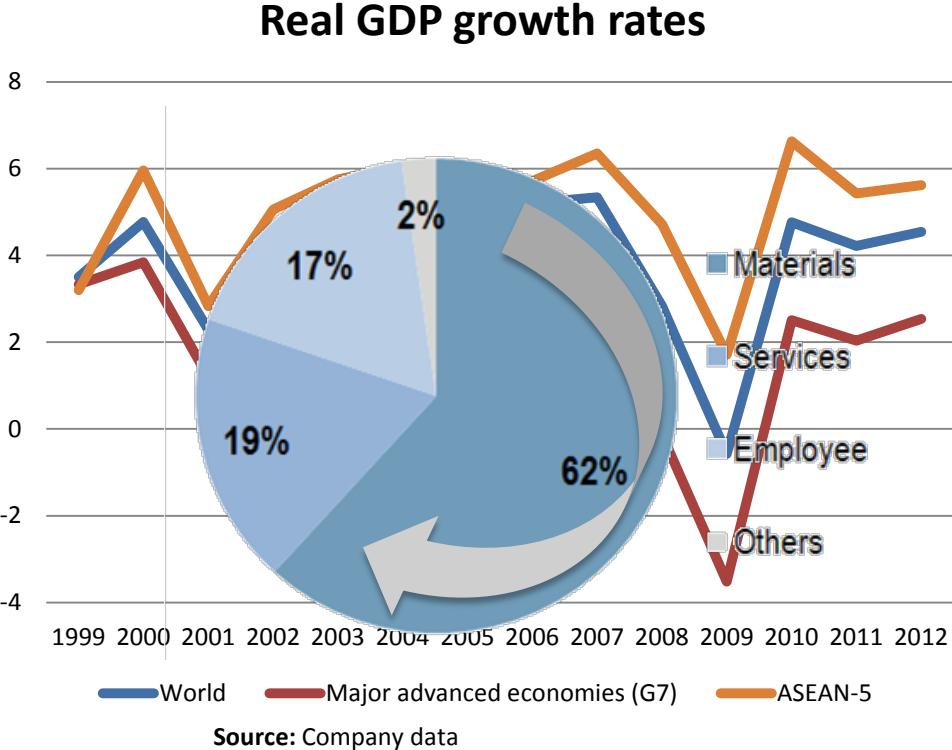


Source: Politecnico Estimates



# Risk analysis: Global risks

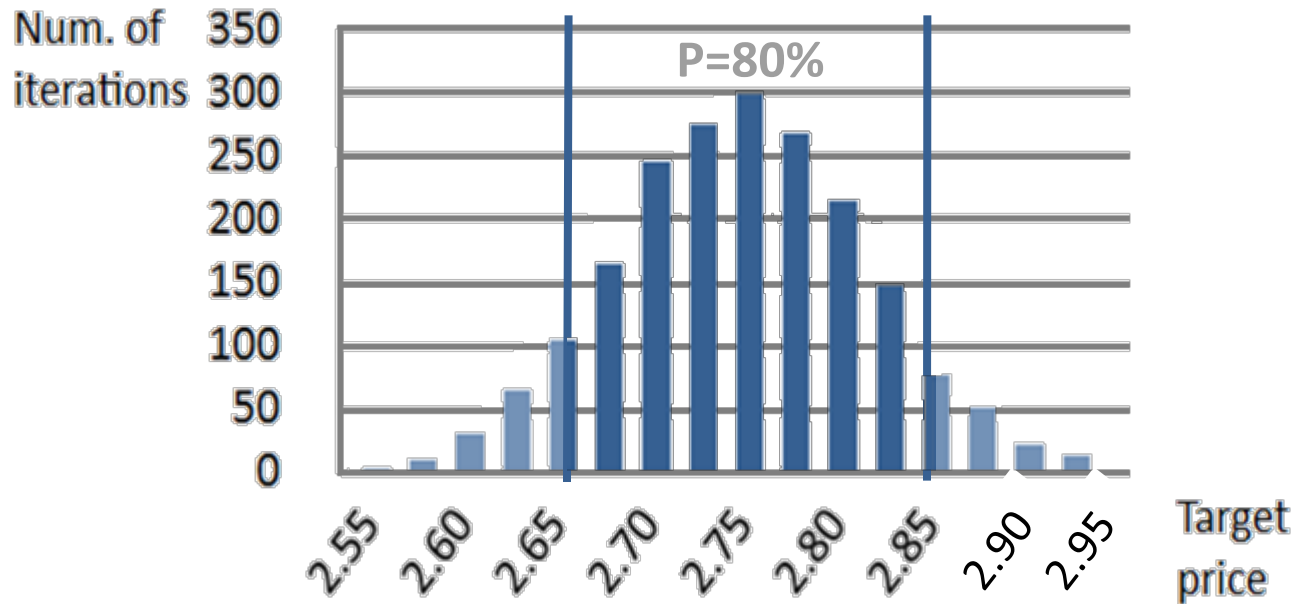
- GDP growth rates
- Increase in energy, raw materials and components costs



Source: International Monetary Fund, World Economic Outlook Database



# Risk analysis: Montecarlo Simulation

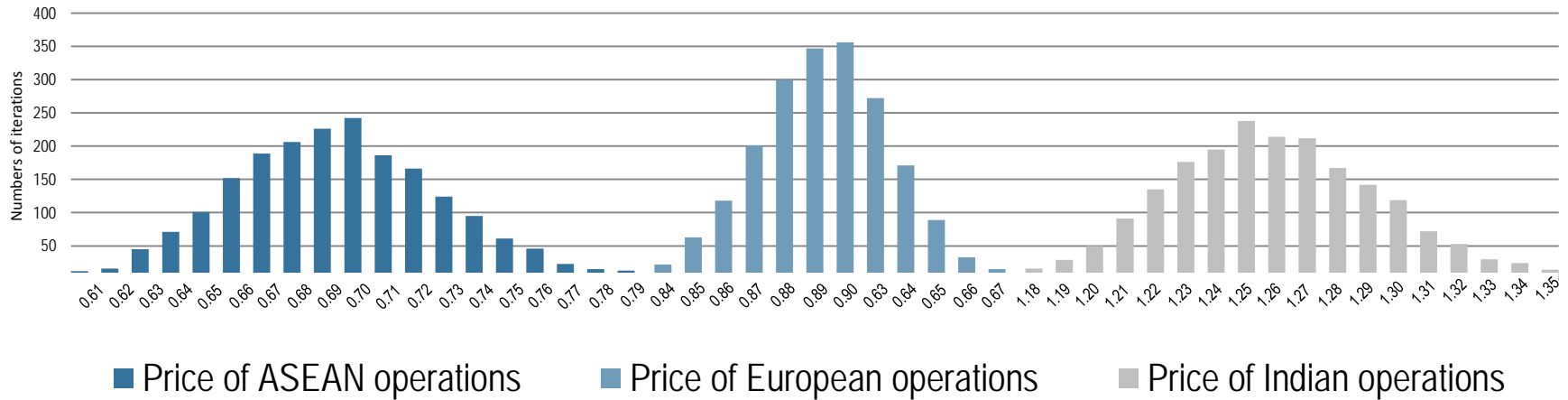


Source: Politecnico Estimates

- Price Confidence Interval: € 2.67 - € 2.84



# Risk analysis: Montecarlo Simulation



Source: Politecnico Estimates

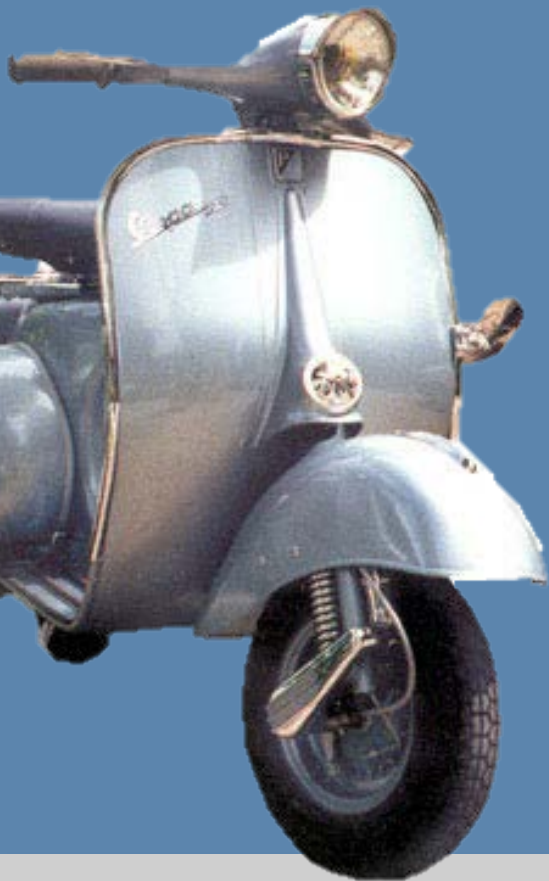
- 80% of risk comes from Asia





# Questions





Automobiles & Parts

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ICFAS Investment Research Challenge 2011

# Data and Charts

Balance Sheet

Debt Structure

Comparable  
Companies

Commodities  
Outlook

Income  
Statement

Ratios

EMs and DMs  
Multiples

SWOT analysis

Cash Flow  
Statement India

WACC

Montecarlo  
Simulation

Product  
Launches

Cash Flow  
Statement Europe

Adj. Tax Rates

Macroeconomic  
Outlook

Corporate  
Governance

Cash Flow Statement  
South Eastern Asia

Terminal Value

Interest Rates  
Curve

Company  
Overview

Wht invest  
in Piaggio

Financial  
Analysis

Valuation

Risk  
Analysis

Data and  
Charts

# Macroeconomic Outlook

India

Vietnam

Indonesia

Thailand

Malaysia

Summary

Data and Charts

# Balance Sheet

	2008	2009	2010 E	2011 E	2012 E	2013 E
<b>FIXED ASSETS</b>	<b>899,186</b>	<b>892,251</b>	<b>889,171</b>	<b>892,346</b>	<b>895,568</b>	<b>898,855</b>
Intangible assets	648,234	641,254	644,370	644,370	644,370	644,370
Tangible assets	250,354	250,415	244,219	247,394	250,616	253,903
Financial assets	598	582	582	582	582	582
<b>NET WORKING CAPITAL</b>	<b>(3,726)</b>	<b>17,212</b>	<b>30,553</b>	<b>52,103</b>	<b>72,844</b>	<b>92,798</b>
Current trade receivables	90,278	103,164	141,720	160,406	186,624	209,325
Other current receivables	21,380	24,198	20,376	23,515	25,490	27,388
Other non-current receivables	12,587	12,914	13,606	15,117	17,297	20,541
Inventories	257,961	252,496	267,542	307,375	340,474	373,654
Trade payables	(362,224)	(345,987)	(385,439)	(418,232)	(453,359)	(487,120)
Short term Tax receivables	27,772	23,979	38,348	30,033	30,033	30,033
Long term Tax receivables	8,166	4,990	6,496	6,551	6,551	6,551
Deferred tax assets	36,227	46,462	45,107	42,599	42,599	42,599
Short term Tax payables	(19,065)	(18,952)	(36,167)	(24,728)	(24,728)	(24,728)
Long term Tax payables	(166)	-	-	-	-	-
Other short term payables	(70,677)	(79,567)	(75,075)	(83,982)	(91,036)	(97,815)
Other long term payables	(5,965)	(6,485)	(5,961)	(6,551)	(7,101)	(7,630)
<b>PROVISIONS</b>	<b>(137,531)</b>	<b>(133,685)</b>	<b>(131,100)</b>	<b>(130,106)</b>	<b>(131,769)</b>	<b>(129,740)</b>
<b>NET CAPITAL EMPLOYED</b>	<b>757,929</b>	<b>775,778</b>	<b>788,624</b>	<b>814,342</b>	<b>836,643</b>	<b>861,913</b>
<b>NET FINANCIAL POSITION</b>	<b>359,708</b>	<b>351,976</b>	<b>342,936</b>	<b>335,398</b>	<b>320,373</b>	<b>297,217</b>
Short term debt	140,691	113,178	130,081	120,000	130,000	90,000
Long term debt	264,789	443,164	379,025	355,000	320,000	310,000
Other liquid assets	5,787	4,127	25,334	15,000	15,000	10,000
Cash	39,985	200,239	140,836	124,602	114,627	92,783
<b>TOTAL SHAREHOLDER'S EQUITY</b>	<b>398,221</b>	<b>423,802</b>	<b>446,638</b>	<b>477,944</b>	<b>516,271</b>	<b>564,696</b>
<b>SOURCES OF FUNDS</b>	<b>757,929</b>	<b>775,778</b>	<b>788,624</b>	<b>813,342</b>	<b>836,643</b>	<b>861,913</b>

Source: Company Data, Politecnico Estimates

# Income Statement

	2008	2009	2010 E	2011 E	2012 E	2013 E
Net Sales	1,570,060	1,486,882	1,550,274	1,679,646	1,820,718	1,956,304
<i>Reported Growth</i>	-7.2%	-5.3%	4.3%	8.3%	8.4%	7.4%
<b>Business Units</b>						
Two Wheeler Vehicles	1,180,666	1,065,417	1,057,177	1,121,380	1,217,681	1,303,487
<i>Reported Growth</i>	-8.8%	-9.8%	-0.8%	6.1%	8.6%	7.0%
Commercial Vehicles	389,394	421,465	493,097	558,266	603,037	652,817
<i>Reported Growth</i>	2.4%	8.2%	17.0%	13.2%	8.0%	8.3%
<b>Geographical Area</b>						
Europe and America	1,280,932	1,116,191	1,080,672	1,113,972	1,140,716	1,166,090
<i>Reported Growth</i>	-8.6%	-12.9%	-3.2%	3.1%	2.4%	2.2%
India	243,972	286,753	366,822	439,895	526,074	601,840
<i>Reported Growth</i>	2.5%	17.5%	27.9%	19.9%	19.6%	14.4%
ASEAN	45,156	83,938	102,779	125,779	153,927	188,000
<i>Reported Growth</i>	-13.2%	85.9%	22.4%	22.4%	22.4%	22.1%
Other operating income	133,474	135,938	131,773	136,051	140,195	148,679
Cost for materials	(936,603)	(871,653)	(910,011)	(992,671)	(1,081,506)	(1,167,913)
Cost for services	(292,920)	(272,065)	(272,848)	(290,579)	(307,701)	(322,790)
Employee costs	(250,967)	(242,916)	(257,345)	(262,025)	(269,466)	(275,839)
Other operating costs	(33,993)	(35,387)	(34,106)	(36,952)	(40,056)	(43,039)
<b>EBITDA</b>	<b>189,051</b>	<b>200,799</b>	<b>207,737</b>	<b>233,471</b>	<b>262,183</b>	<b>295,402</b>
<b>EBITDA margin</b>	<b>12.04%</b>	<b>13.50%</b>	<b>13.40%</b>	<b>13.90%</b>	<b>14.40%</b>	<b>15.10%</b>
D&A	94,540	96,378	94,737	102,643	104,200	106,266
<i>% Capex</i>	91.85%	102.76%	97.00%	97.00%	97.00%	97.00%
<b>EBIT</b>	<b>94,511</b>	<b>104,421</b>	<b>112,999</b>	<b>130,828</b>	<b>157,984</b>	<b>189,135</b>
<b>EBIT margin</b>	<b>6.02%</b>	<b>7.02%</b>	<b>7.29%</b>	<b>7.79%</b>	<b>8.68%</b>	<b>9.67%</b>
Financial charges	(41,288)	(33,275)	(27,754)	(28,423)	(32,341)	(31,740)
<i>% Tot Financial Liabilities</i>	10.18%	5.98%	6.00%	6.20%	6.50%	6.90%
Other Financials	6,379	4,905	4000	3500	3000	3000
<b>Earnings before tax</b>	<b>59,633</b>	<b>74,093</b>	<b>89,246</b>	<b>105,904</b>	<b>128,643</b>	<b>160,395</b>
Taxation for the period	16,302	26,674	41,410	46,598	55,316	68,970
<i>Actual tax rate (%)</i>	27.34%	36.00%	46.40%	44.00%	43.00%	43.00%
<b>Consolidated net income</b>	<b>43,331</b>	<b>47,419</b>	<b>47,836</b>	<b>59,306</b>	<b>73,326</b>	<b>91,425</b>
<b>Profit margin</b>	<b>2.76%</b>	<b>3.19%</b>	<b>3.09%</b>	<b>3.53%</b>	<b>4.03%</b>	<b>4.67%</b>
Minority Shareholders	330	1,388	239	297	367	457
<b>Earnings per share (€)</b>	<b>0.11</b>	<b>0.12</b>	<b>0.13</b>	<b>0.16</b>	<b>0.20</b>	<b>0.25</b>
Avg. number of Ordinary Shares	396,041	396,041	371,800	369,000	369,000	369,000
<b>Dividend per share (€)</b>	<b>0.06</b>	<b>0.07</b>	<b>0.07</b>	<b>0.08</b>	<b>0.09</b>	<b>0.12</b>
Earnings paid as dividends	22,120	25,795	25,000	28,000	35,000	43,000
Payout Ratio	51%	56%	52%	47%	48%	47%

# Cash Flow Statement India

INDIA	2011 E	2012 E	2013 E	2014 E	2015 E
LCV volumes (units)	250,000	265,000	280,000	295,000	310,000
LCV ARPU (€)	1,760	1,857	1,960	2,038	2,103
2w volumes (units)		50,000	75,000	95,000	110,000
2w ARPU (€)		680	707	735	765
<b>Sales from India</b>	<b>439,895</b>	<b>526,074</b>	<b>601,840</b>	<b>671,067</b>	<b>736,122</b>
<i>% tot sales</i>	26.19%	28.89%	30.76%	32.19%	33.31%
<i>% growth</i>	19.92%	19.59%	14.40%	11.50%	9.69%
EBITDA from India	89,739	107,319	122,174	134,213	144,280
<i>EBITDA margin India</i>	20.40%	20.40%	20.30%	20.00%	19.60%
D&A India	24,867	25,244	25,745	26,454	27,266
<i>% Capex India</i>	94.00%	94.00%	94.00%	94.00%	94.00%
EBIT from India	64,871	82,075	96,429	107,759	117,013
EBIT margin India	14.75%	15.60%	16.02%	16.06%	15.90%
Tax Rate India	42.00%	42.00%	42.00%	42.00%	42.00%
Op. Tax India	27,246	34,471	40,500	45,259	49,146
Adj. Op. Tax India	34,082	42,421	50,925	54,526	59,462
Adj. Tax Rate India	52.54%	51.69%	52.81%	50.60%	50.82%
D&A India	24,867	25,244	25,745	26,454	27,266
Change in NWC India	(12,172)	(12,670)	(11,150)	(10,914)	(9,855)
<b>Cash Flow From Indian Operations</b>	<b>43,484</b>	<b>52,228</b>	<b>60,098</b>	<b>68,774</b>	<b>74,963</b>
Capex India	26,454	26,856	27,388	28,143	29,007
<i>% Capex</i>	25.00%	25.00%	25.00%	25.00%	25.00%
<b>FCFF India</b>	<b>17,030</b>	<b>25,372</b>	<b>32,710</b>	<b>40,631</b>	<b>45,956</b>
<i>% growth</i>		48.99%	28.92%	24.22%	13.11%

Source: Politecnico Estimates

Data and Charts

# Cash Flow Statement Europe and US

EUROPE and US	2011 E	2012 E	2013 E	2014 E	2015 E
2W volumes (units)	362,000	366,000	369,000	371,000	372,000
2W ARPU (€)	2,750	2,814	2,878	2,944	3,012
LCV volumes (units)	14,289	13,632	13,004	12,406	11,836
LCV ARPU (€)	8,284	8,140	7,999	7,859	7,723
<b>Sales from Europe and US</b>	<b>1,113,972</b>	<b>1,140,716</b>	<b>1,166,090</b>	<b>1,189,896</b>	<b>1,211,930</b>
<i>% tot sales</i>	66.32%	62.65%	59.61%	57.08%	54.84%
<i>% growth</i>	3.08%	2.40%	2.22%	2.04%	1.85%
EBITDA from Europe and US	115,853	120,916	129,436	132,078	134,524
<i>EBITDA margin Europe and US</i>	10.40%	10.60%	11.10%	11.10%	11.10%
D&A Europe and US	64,126	65,098	66,389	68,218	70,312
<i>% Capex Europe and US</i>	101.00%	101.00%	101.00%	101.00%	101.00%
EBIT from Europe and US	51,728	55,818	63,047	63,860	64,212
EBIT margin Europe and US	4.64%	4.89%	5.41%	5.37%	5.30%
Tax Rate Europe and US	30.00%	30.00%	30.00%	30.00%	30.00%
Op. Tax Europe and US	15,518	16,745	18,914	19,158	19,264
Adj. Op. Tax Europe and US	20,969	22,152	25,730	24,650	24,925
Adj. Tax Rate Europe and US	40.54%	39.69%	40.81%	38.60%	38.82%
D&A Europe and US	64,126	65,098	66,389	68,218	70,312
Change in NWC Europe and US	(5,547)	(3,932)	(3,734)	(3,753)	(3,338)
<b>Cash Flow From EU Operations</b>	<b>89,337</b>	<b>94,832</b>	<b>99,972</b>	<b>103,676</b>	<b>106,262</b>
Capex Europe	63,491	64,453	65,732	67,543	69,616
<i>% Capex</i>	60.00%	60.00%	60.00%	60.00%	60.00%
<b>FCFF Europe</b>	<b>25,846</b>	<b>30,379</b>	<b>34,240</b>	<b>36,133</b>	<b>36,645</b>
<i>% growth</i>		17.54%	12.71%	5.53%	1.42%

Source: Politecnico Estimates

Data and Charts



# Cash Flow Statement ASEAN

ASEAN	2011 E	2012 E	2013 E	2014 E	2015 E
2W volumes (units)	62,543	81,425	106,008	132,509	161,662
2W ARPU (€)	2,011	1,890	1,777	1,688	1,621
<b>Sales from ASEAN</b>	<b>125,779</b>	<b>153,927</b>	<b>188,374</b>	<b>223,694</b>	<b>261,990</b>
<i>% tot sales</i>	7.49%	8.45%	9.63%	10.73%	11.85%
<i>% growth</i>	22.38%	22.38%	22.38%	18.75%	17.12%
EBITDA from ASEAN	27,420	33,248	40,312	46,976	54,232
<b>EBITDA margin ASEAN</b>	<b>21.80%</b>	<b>21.60%</b>	<b>21.40%</b>	<b>21.00%</b>	<b>20.70%</b>
D&A ASEAN	13,492	13,696	14,790	15,197	15,664
<i>% Capex ASEAN</i>	85.00%	85.00%	90.00%	90.00%	90.00%
EBIT from ASEAN	13,928	19,552	25,522	31,779	38,568
EBIT margin ASEAN	11.07%	12.70%	13.55%	14.21%	14.72%
Tax Rate ASEAN	7.50%	7.50%	7.50%	7.50%	7.50%
Op. Tax ASEAN	1,045	1,466	1,914	2,383	2,893
Adj. Op. Tax ASEAN	2,512	3,360	4,673	5,116	6,293
Adj. Tax Rate ASEAN	18.04%	17.19%	18.31%	16.10%	16.32%
D&A ASEAN	13,492	13,696	14,790	15,197	15,664
Change in NWC ASEAN	(2,416)	(2,776)	(3,618)	(4,178)	(4,416)
<b>Cash Flow From ASEAN Operations</b>	<b>22,492</b>	<b>27,112</b>	<b>32,021</b>	<b>37,681</b>	<b>43,523</b>
Capex ASEAN	15,873	16,113	16,433	16,886	17,404
<i>% Capex</i>	15.00%	15.00%	15.00%	15.00%	15.00%
<b>FCFF ASEAN</b>	<b>6,619</b>	<b>10,999</b>	<b>15,588</b>	<b>20,796</b>	<b>26,119</b>
<i>% growth</i>		66.17%	41.72%	33.41%	25.60%

**Source:** Politecnico Estimates

Data and Charts

# Ratios

Key Financial Ratios	2009	2010E	2011E	2012E		2009	2010E	2011E	2012E
Profitability ratios									
EBITDA margin	13.50%	13.40%	13.90%	14.40%	ROI	6.67%	7.11%	8.09%	9.44%
EBIT margin	7.02%	7.29%	7.79%	8.68%	ROE	11.19%	10.71%	12.41%	14.20%
Gearing ratios					Debt ratios				
Total Debt to Equity	1.31x	1.14x	0.99x	0.87x	Interest coverage ratio	3.14x	4.07x	4.60x	4.88x
Net Debt to Equity	0.83x	0.77x	0.70x	0.62x	Net Debt / EBITDA	1.70x	1.61x	1.37x	1.13x
Cash flow ratios					Capex				
OCF / Sales	9.19%	9.43%	9.25%	9.57%	Capex / Sales	6.3%	6.3%	6.3%	5.9%
OCF / Earnings	2.88x	3.06x	2.62x	2.38x	D&A / Capex	102.96%	97%	97%	97%
Market ratios					Cost structure				
EPS	€0.12	€0.13	€0.16	€0.20	Labor Cost / Sales	16.34%	16.60%	15.60%	14.80%
DPS	€0.07	€0.07	€0.08	€0.09	Materials Cost / Sales	58.62%	58.70%	59.10%	59.40%

**Source:** Company data, Politecnico Estimates

# Terminal Value

Industry	Cash flow growth capability of the company		
	High	Medium	Low
<b>Strongly developing</b>	<del>3-5%</del>	<del>2-3%</del>	<del>0-1%</del>
<b>Moderately developing</b>	1.5 - 2.5%	1-2%	0%
<b>Stable</b>	0-1%	0%	0%
<b>Decadent</b>	<del>0%</del>	<del>0%</del>	<del>0%</del>

Source: Guatri (1998)

Long term growth rate = long term population growth + long term productivity growth

# WACC

	ASEAN	India	EU and US	Description:
<b>WACC</b>	10.72%	9.31%	7.63%	Our estimation.
<b>Gearing ratio (D/E)</b>		0.7		Target gearing ratio stated by Piaggio, consistent with our DCF.
<b>Cost of Debt</b>		5.58%		Average cost of outstanding Debt.
<i>Fixed rate Bond</i>		7.00%		27% of total debt. Fixed interest rate.
<i>Bank Loans</i>		2.70%		52% of total debt. Flexible interest rate: Euribor6M + spread [min 0.65%/ max 2.2%]. Comfortably within covenants.
<i>Other</i>		10.90%		21% of total debt. Includes principally: interest paid on leases, bank charges, cash discount for customers, etc.
<b>Marginal tax rate</b>		43.00%		The corporate tax rate. In fact approximately the whole Debt is owned by the consolidated Piaggio group, and not by its subsidiaries.
<b>Cost of Equity</b>	16.01%	13.61%	10.76%	Cost of Equity, differentiated among countries.
<i>Risk free rate</i>		4.81%		Yield on the Italian BTP 10Y as of 20/1/2011
<i>Equity market premium</i>		5.20%		Implied market risk premium at 1/1/11 (Source: Damodaran, <a href="http://pages.stern.nyu.edu/~adamodar/">http://pages.stern.nyu.edu/~adamodar/</a> ).
<i>Country risk premium</i>	6.00%	3.60%	0.75%	The country's default spread - based on the country rating from Moody's - adjusted by the relative equity market volatility. (Source: Damodaran).
<i>Beta <math>\beta</math></i>		1.00		Estimated by regressing weekly returns on stock against the FTSE MIB index using 5 years of data. (Source: Damodaran).

Source: Politecnico Estimates

# Adjusted Tax Rates

## National tax rates adopted in the analysis

Country	Tax rate	Comment
Italy	27.5%	IRES (Italian corporate tax rate)
Europe	~30%	Average European corporate tax rate
US	35%	American corporate tax rate
India	43%	Indian foreign companies corporate tax rate
Vietnam	7.5%	Vietnam corporate tax rate is 25% but Piaggio will pay a 7.5% preferential tax rate, because of government tax incentives. Piaggio has already enjoyed 3 years of fiscal tax holiday at 0% tax rate
Indonesia, Thailand, Taiwan and Malaysia	~25%	Average ASEAN corporate tax rate

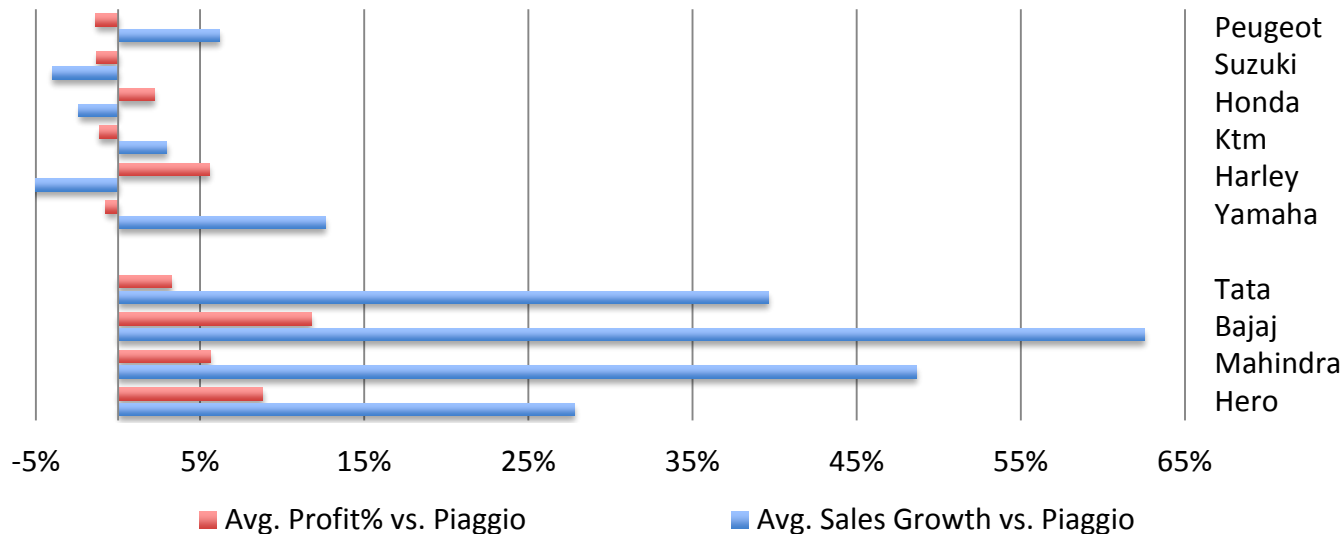
Region	Adj. Tax Rate
India	~51%
EU and US	~39%
ASEAN	~16%

**Source:** Politecnico Estimates

# Comparable Companies

Comparable Company	Hero	Mahindra	Bajaj	Tata	Yamaha	Harley-D.	Ktm	Honda	Suzuki	Peugeot
Ticker (Bloomberg)	HH.IN	MM.IN	BJAUT.IN	TTMT.IN	7272.JP	HOG.US	KTM.AV	7267.JP	7269.JP	UG.FP
Country of Incorporation	India	India	India	India	Japan	US	Austria	Japan	Japan	France
Share Price (01/20/11)	INR 1,763	INR 751	INR 1,320	INR 1,194	JPY 1,408	USD 36.00	EUR 48.00	JPY 3,330	JPY 2,021	EUR 32.20
to 52wH/L (LC)	-16%/18%	-36%/53%	-54%/8%	-14%/85%	-4%/36%	-1%/69%	-4%/218%	-2%/35%	-9%/26%	-4%/80%
Market Presence - 2w <sup>(a)</sup>	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■
Market Presence - LCVs <sup>(a)</sup>	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■
% Diversification <sup>(b)</sup>	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■
Enterprise Value USD <sup>(c)</sup>	7,673	11,436	8,326	21,183	7,443	13,122	844	107,646	11,709	40,524
Market Value <sup>(c)</sup>	7,687	9,515	8,341	15,090	5,927	8,479	652	72,371	13,671	9,809
Free Float (%)	71.6%	74.7%	46.0%	56.8%	81.5%	98.7%	N/A	92.1%	70.4%	66.6%

Table 7 - Source: Bloomberg, Reuters, BSE estimates.



# EMs and DMs Multiples.

EV/EBITDA multiple for the whole Company:

Basic Assumptions:

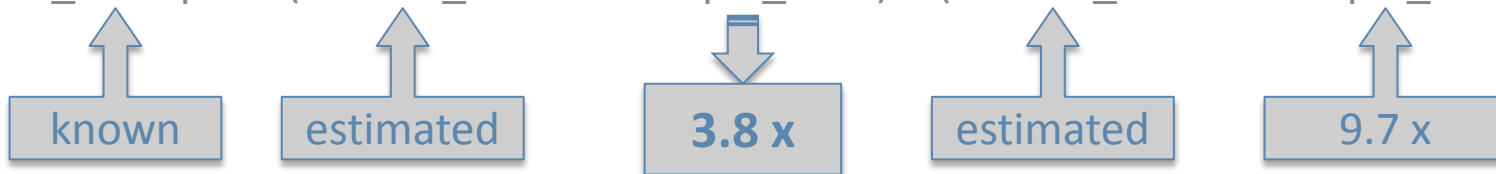
- EBITDA margin is 50% higher in EMs
- Markets' exposure is equal to the percentage of Sales in EMs

➤ EMs multiple:

- Equal to the Indian peers' multiple = **9.7 x**

➤ DMs multiple:

- $\text{Mkt\_Multiple} = (\text{EBITDA\_DMs} \times \text{Multiple\_DMs}) + (\text{EBITDA\_EMs} \times \text{Multiple\_EMs})$



% of SALES from EMs	
Piaggio	25 %
Hero Honda	100 %
Mahindra & Mahindra	90 %
Bajaj Auto	100%
Tata Motors	92 %
Yamaha Motor	62 %
Harley-Davidson	3 %
Ktm	16 %
Honda Motor	74 %
Suzuki	33 %
PSA Peugeot Citroen	21 %

# Montecarlo Simulation

RISK	DRAWN QUANTITY	DISTRIBUTION	ST.DEV.	COMMENTS
<b>GDP growth rates</b>				
<b>LCV India</b>	YoY volumes growth (%)	Inverted Lognormal	1.0%	> Downside risk from Indian slowdown
<b>2W India</b>	YoY volumes growth (%)	Inverted Lognormal	5.0%	> Downside risk from Indian slowdown
<b>LCV Europe</b>	YoY volumes growth (%)	Normal	0.5%	> Structural decline
<b>2W Europe</b>	YoY volumes growth (%)	Lognormal	1.0%	> Upside risk from unexpected economic recovery
<b>2W ASEAN</b>	YoY volumes growth (%)	Inverted Lognormal	2.0%	> Downside risk from Vietnamese slowdown
<b>Success/insuccess of new models</b>				
<b>LCV India</b>	Volumes (u)	Normal	10000u	> Risk not considered for Europe because of Piaggio's established presence in the market
<b>2W India</b>	Volumes (u)	Normal	5000u	
<b>2W ASEAN</b>	Volumes (u)	Normal	7000u	
<b>Stronger competition</b>				
<b>LCV India</b>	Ebitda Margin (%)	Inverted Lognormal	1.0%	> Although some margin erosion is already modeled in our DCF we assumed further erosion due to unexpected competitive pressure
<b>2W ASEAN</b>	Ebitda Margin (%)	Inverted Lognormal	1.0%	
<b>2W Europe</b>	Ebitda Margin (%)	Inverted Lognormal	0.5%	
<b>Exchange rate</b>				
<b>India</b>	Ebit (€)	Normal	3.5%*Ebit	> Exchange rates volatility not covered by Piaggio's hedging policy
<b>ASEAN</b>	Ebit (€)	Normal	5%*Ebit	

Source: Politecnico Estimates



# SWOT Analysis

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"><li>• Strong Brands and product line</li><li>• Great innovation capabilities, both in engines and design</li><li>• Possibility to sign deals as engines supplier for global automotive player with further economies of scale in the production of engines</li></ul>	<ul style="list-style-type: none"><li>• Poor ability to compete in the motorbike sector</li><li>• Low competitiveness in the 4w segment</li></ul>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"><li>• Poor infrastructures and high urban traffic fuel 2w growth in Emergin Markets</li><li>• Developed Markets regulation on CO<sub>2</sub> may increase 2W sales</li></ul>	<ul style="list-style-type: none"><li>• Weak European market recovery</li><li>• New competitors in European market focusing on price: Kymco and Sanyang</li><li>• New competitors in Indian 4w market: GM and Nissan</li><li>• Rise of input's costs</li></ul>

Table 27 - Source: BSE estimates

# Product Launches












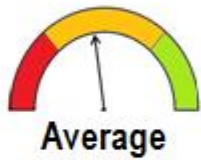

	2009	2010	2011	2012	2013
<b>Asia 4w</b>	apé truck plus (4w cargo 865kg) in India 	apé mini (4w cargo half tonne) in India 	4w passenger vehicle in India	4w cargo vehicle 1.5t in India	Late: NT3 
<b>Asia 2w</b>	Vespa LX 125/150 in Vietnam 	Beverly in Vietnam 	Introducing Vespa and other scooters in Indonesia and Thailand 	Mid: Vespa LX 125 in India 	
<b>EU</b>		MP3 Hybrid 300i 	Vespa PX, new scooter and motorbikes (Typhoon, Aprilia) 	Scooters restyling and new motorbikes models. 	
<b>US</b>			nine new 2w models		

Table 26 - Source: BSE estimates

# Corporate Governance

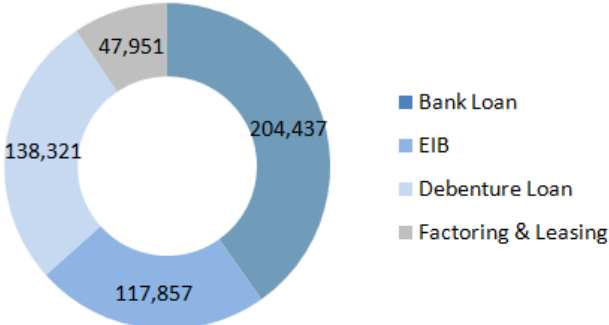
Company	GMI rating	CG and CSR Valuation
BMW	7.5	 Strong
Mahindra	6	
Honda	5.5	 Average
Piaggio	5	
Tata	5	
Nissan	5	
Bajaj	5	
Suzuki	4	 Weak
Yamaha	3	

**Table 28 - Source:** Governance Metrics International (GMI), BSE estimates (we estimated rating for Piaggio on the basis of our CG and CSR analysis).

**Methodology:** The average rating of the companies analyzed is 5.1. We assumed that average ratings are in the range  $5.1 \pm 10\%$ .

# Debt Structure

## Breakdown by nature



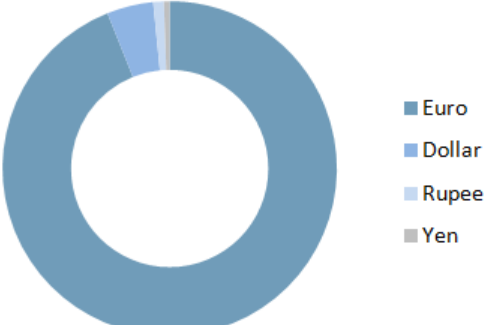
Source: Piaggio Financial highlights (3Q-10)

## Breakdown by rate



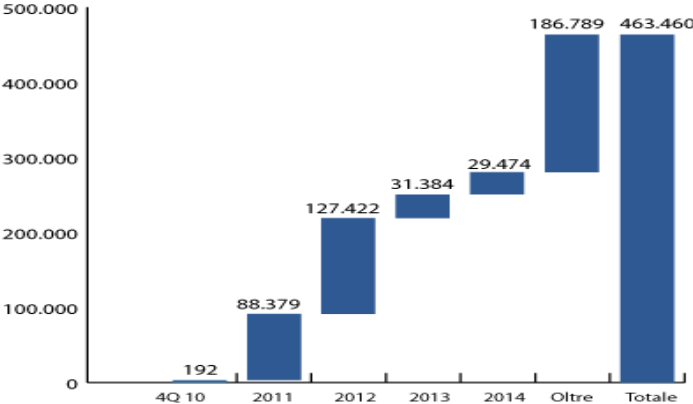
Source: Piaggio Financial highlights (3Q-10)

## Breakdown by currency

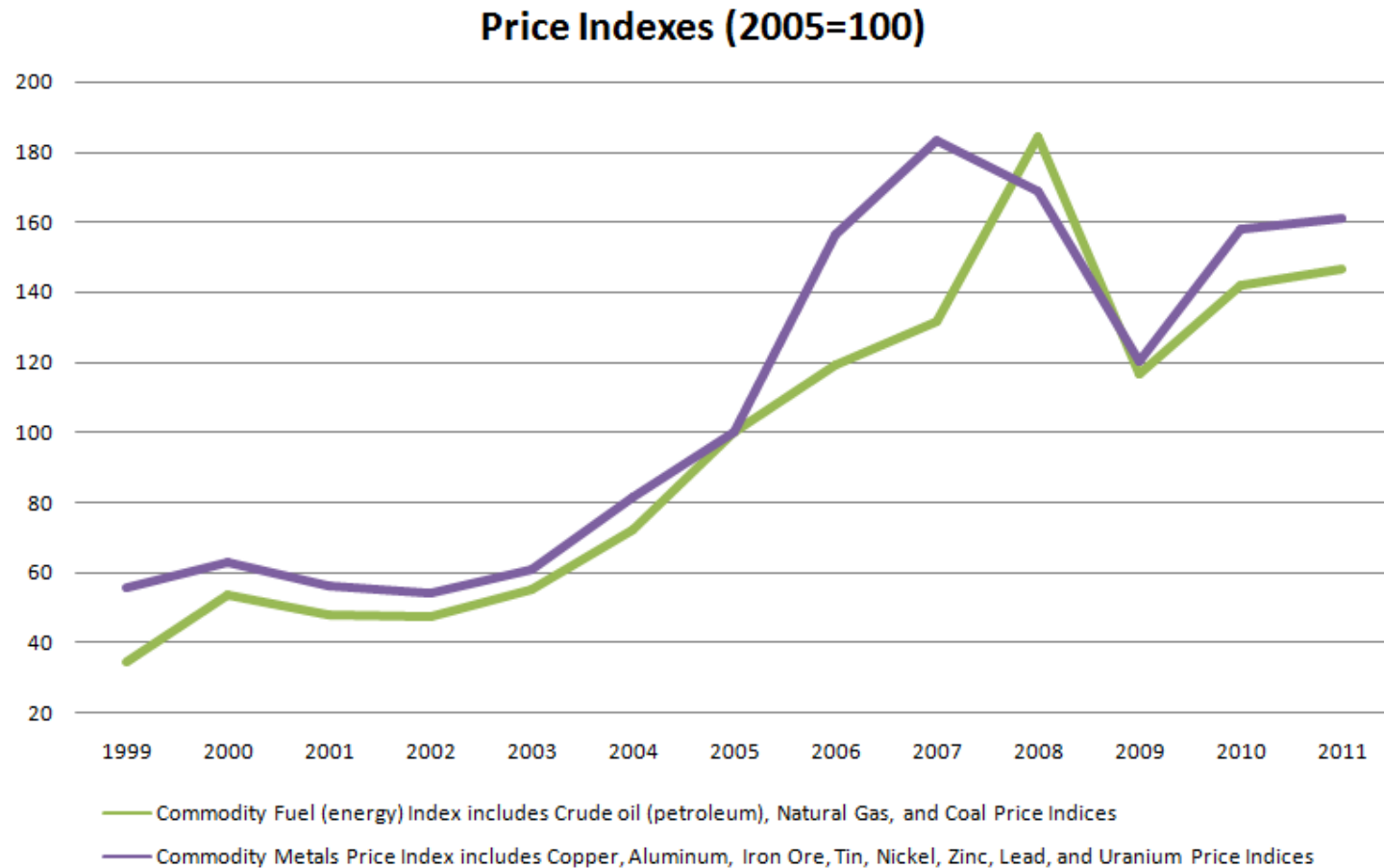


Source: Piaggio Financial highlights (3Q-10)

## Maturity

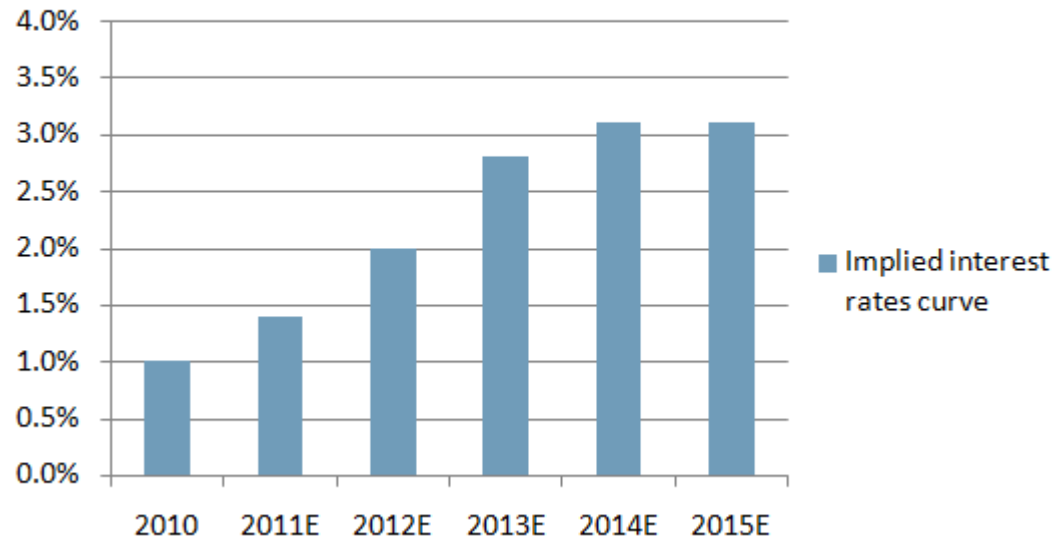


# Commodities Outlook



# Interest rates Euro Area

## Implied interest rates curve



Source: Company Data, Politecnico Estimates

# India

<b>Macroeconomic data</b>	2009	2010	2011	2012	2015
Real GDP growth (%)	5.678	9.668	8.373	7.976	8.128
GDP per capita (US \$)	1,031.59	1,176.06	1,296.68	1,410.64	1,856.76
Inflation CPI (%)	10.882	13.187	6.668	4.693	4.033
Unemployment rate (%)					
Population (Millions)	1,199.06	1,215.94	1,232.68	1,249.28	1,299.24

<b>Industry data</b>	2009	2010	2011	2012	2015
2w total sales	7,437,619	9,371,231	10,148,600	10,990,000	13,959,500
3w total sales	349,727	440,368	468,500	498,000	600,500
4w LCVs total sales	384,194	531,395	584,500	642,000	855,800

Macroeconomic  
Outlook

# Vietnam

<b>Macroeconomic data</b>	2009	2010	2011	2012	2015
Real GDP growth (%)	5.323	6.468	6.817	7.044	7.485
GDP per capita (US \$)	1,068.26	1,155.57	1,272.18	1,387.16	1,771.85
Inflation CPI (%)	6.717	8.4	8	6.05	5
Unemployment rate (%)	6	5	5	5	5
Population (Millions)	87.211	88.257	89.316	90.388	93.681

Macroeconomic  
Outlook



# Indonesia

<b>Macroeconomic data</b>	2009	2010	2011	2012	2015
Real GDP growth (%)	4.546	6	6.2	6.5	7
GDP per capita (US \$)	2,329.45	2,963.28	3,270.01	3,532.00	4,440.58
Inflation CPI (%)	4.814	5.066	5.5	5.357	3.714
Unemployment rate (%)	8	7.5	7	6.5	7
Population (Millions)	231.547	234.557	237.606	240.695	250.205

Macroeconomic  
Outlook

# Malaysia

<b>Macroeconomic data</b>	2009	2010	2011	2012	2015
Real GDP growth (%)	-1.714	6.716	5.3	5.2	5
GDP per capita (US \$)	6,950.47	7,754.99	8,238.51	8,748.81	10,455.22
Inflation CPI (%)	0.6	2.2	2.1	2.3	2.5
Unemployment rate (%)	3.7	3.5	3.2	3.1	3
Population (Millions)	27.761	28.233	28.713	29.201	30.716

Macroeconomic  
Outlook

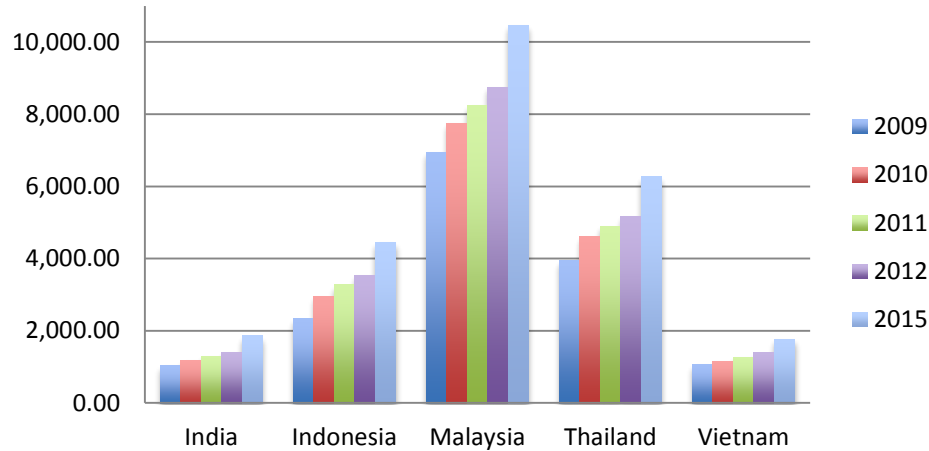
# Thailand

<b>Macroeconomic data</b>	2009	2010	2011	2012	2015
Real GDP growth (%)	-2.248	7.522	4.001	4.25	5
GDP per capita (US \$)	3,940.97	4,620.71	4,888.46	5,161.49	6,268.62
Inflation CPI (%)	-0.846	3.047	2.755	2.53	1.954
Unemployment rate (%)	1.39	1.39	1.39	1.39	1.39
Population (Millions)	66.983	67.653	68.33	69.013	71.104

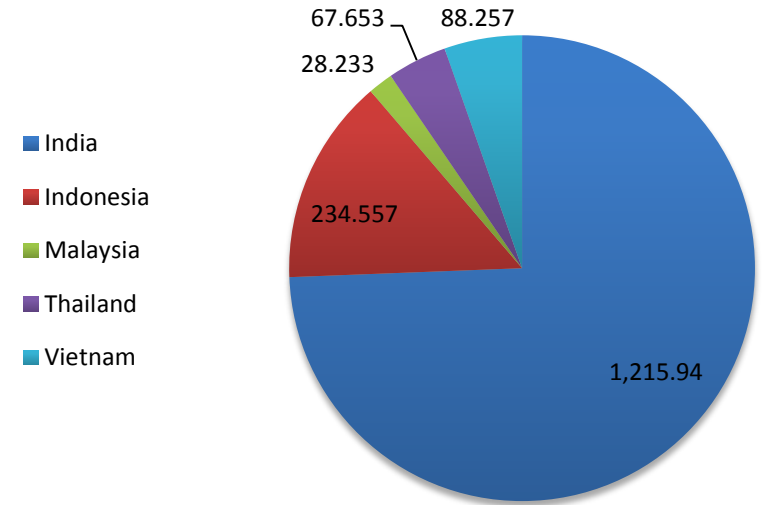
Macroeconomic  
Outlook

# Summary macroeconomic data

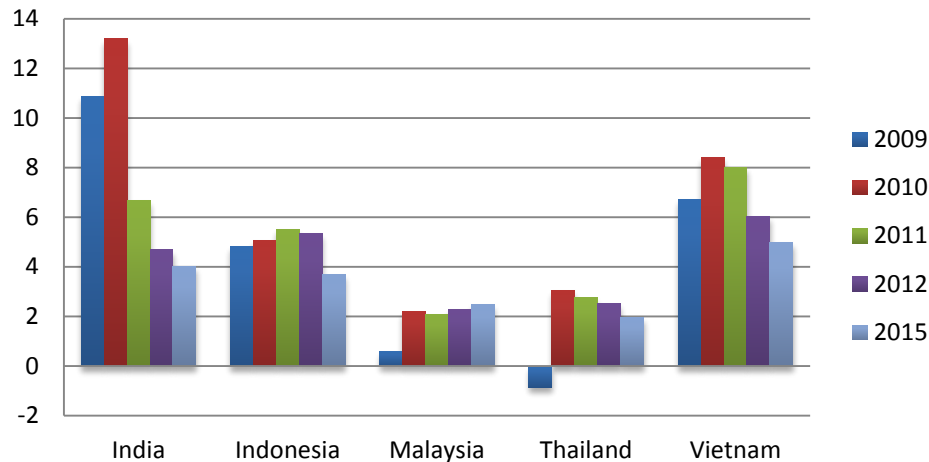
## GDP per capita (US \$)



## Population (Millions, 2010)

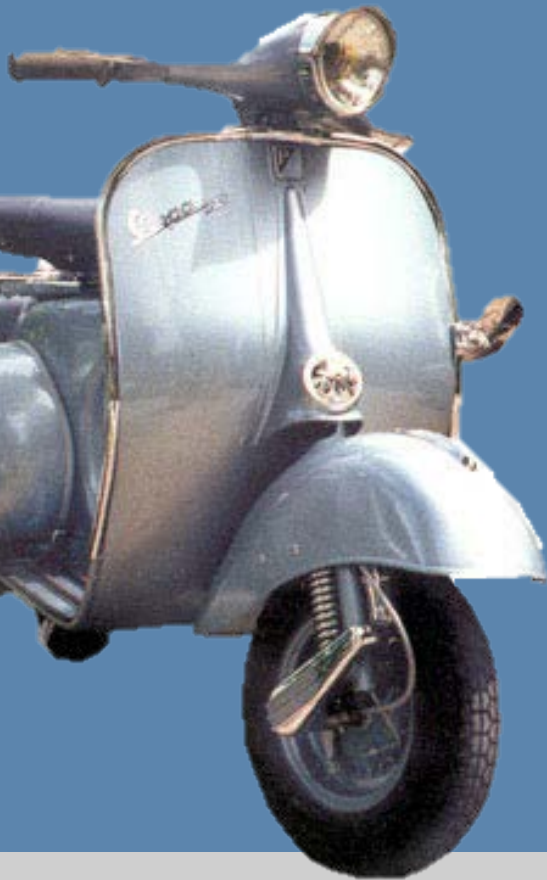


## Inflation, CPI (%)



Population	CAGR 2010-15
<b>India</b>	1.33%
<b>Indonesia</b>	1.30%
<b>Malaysia</b>	1.70%
<b>Thailand</b>	1.00%
<b>Vietnam</b>	1.20%

Macroeconomic  
Outlook



Automobiles & Parts

**PIAGGIO S.p.A.**