Deutsche Börse Student Research

Motorcycle manufacturers

Piaggio & C. S.p.A.

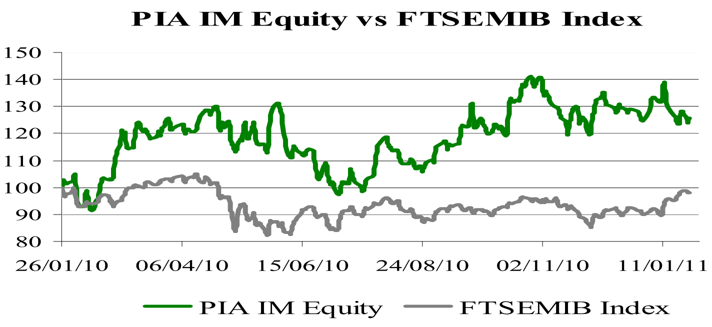
27 January 2011

Ticker: Reuters/Bloomberg PIA.MI/PIA IM **Recommendation:** HOLD
Price: € 2.37 **Price Target:** € 2.6

Key Financial Data	2009A	2010E	2011E	2012E
EPS (Eur)	0,12	0,10	0,15	0,18
DPS (Eur)	0,06	0,04	0,06	0,07
P/E (x)	16,67	15,2	12,9	11,7
EV/EBITDA (x)	3,71	4,14	3,72	3,54
Revenue (EurM)	1487	1.496	1.661	1.770
EBITDA	202,8	191	219	238
EBIT	106,4	94	121	138
NCF/EBITDA	0,04	0,03	0,04	0,06
Debt/Equity	0,83	0,77	0,70	0,62
Net Debt/EBITDA (x)	1,74	1,81	1,54	1,36

Slow and stady (does not win the race)

- **Limited upside potential due to high exposure to European flat market.** Our coverage of Piaggio & C. starts with a HOLD recommendation and a twelve-month target price of Eur 2.6 (~9% upside potential from current price). Using DCF and multiple models we identified a fair value for Piaggio between Eur 2.59 and Eur 2.85. Given the limited upside potential, we suggest a target price of Eur 2.6. Weighting opportunities and gains coming from the main risks faced by our valuations, we consider appropriate HOLD recommendation. In our view, despite a well-differentiated brand portfolio, the group is still highly exposed (59% of revenues in 2015) to the flat European market (0% 2010-15 CAGR). In Asia Piaggio's units sold and market share are still rather small (approx 2% market share), and therefore the company is not able to fully benefit from the Asian growth.
- **Improvement in revenues and profitability thanks to expansion in Asia.**We expect a growth in revenues (5.8% 2010-15 CAGR), mainly driven by the penetration of the two-wheels Asian market in 2012 (Eur 352M) and further expansion in the Asian area. As a bigger fraction of the group production should take in place in the Indian and Vietnamese plants, overall margins should improve (we expect 14% EBITDA margin 2015 compared to 13.6% in 2009). Thanks to a positive cash flow, we estimate an improvement in the Net Financial Debt, decreasing from Eur 352M in 2009 to Eur 268M in 2015 based on debt repayment, consistently with the company's deleveraging commitment.
- **Main risks to our analysis.** Our analysis considers a base case scenario, that is exposed to the following risks: EPS erosion due to a high operating leverage. In fact, a lower-than-expected growth in revenues will have a significant negative impact on EPS (-2% in revenues may have a -33% impact on EPS in 2013). Other risks include the cyclicality of the business and the exposure to currency risk (mainly USD and Indian rupees).



Market Data (27/01/2011)	
Market capitalization (EurM)	877
Shares outstanding (M)	371.794
Main shareholder	IMMSI Sp.a. (53.6%)
2nd shareholder	Diego Della Valle (5%)
Free float	39%
52 weeks price range (Eur)	1.765-2.71
Beta vs FTSE MIB	0.70
Relative performance vs FTSE MIB	
12m (%)	24.5%
6m (%)	17%
1m (%)	-10%

Investment Summary

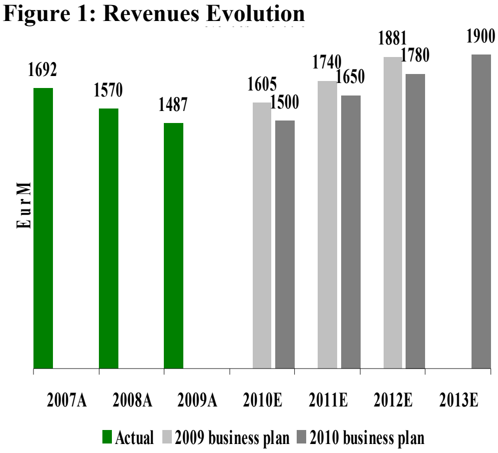
We initiate our coverage of Piaggio & C. with a hold rating and a twelve-month target price of Eur 2.6 (~9% upside) lying on a fair value range of Eur 2.59-2.85. We considered a five year business plan (2010-15), two years longer than the strategic plan presented by Piaggio.

In 2005 Piaggio, shortly after being transferred from the private equity group Morgan Grenfell to IMMSI, acquired the Italian motorcycle manufacturer Aprilia, thus enlarging its brand portfolio to other high value brands (Aprilia had acquired Moto Guzzi before) and becoming the **4th motorcycle manufacturer in the World**, although the gap from the bigger Japanese manufacturers remains wide (e.g. Honda and Yamaha totalized Eur 10Bn and Eur 7Bn revenues respectively in their motorcycle business units in FY 2009). Today the group operates in both the moped and the motorcycle segments with differently positioned brands, although the prevalent strategy is focused on brand premiumisation. In recent years, Piaggio started a geographic diversification selling light commercial vehicles (LCV) in India and two wheels vehicles (2W) in Vietnam from on-site plants.

The market is complex both in geographical terms and in product terms (i.e. 2W and LCV). In developed countries, 2W and LCV registrations has remained steady, and in 2009 have started a declining trend (-21% and –52% YoY in Europe and America respectively). On the contrary, in emerging countries, most notably in Asia, the market has been showing a spectacular growth (in India 20% YoY growth in registrations according to the trade organization SIAM).

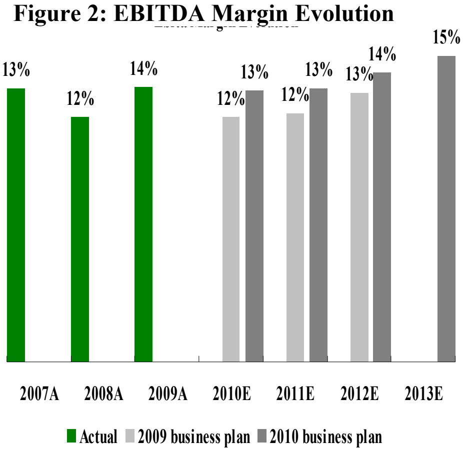
In September 2010 Piaggio unveiled its 2010-13 Business Plan, that **revised downward the previous 2009-12 estimates**. Piaggio's more conservative forecasts are due to a strong decline in European registrations. This affects total revenues as Europe relative weight is still 71%, due to a premium price effect. Increasing profitability expectations come from the growing importance of Asian operations. Summing up, we share Piaggio's prudent outlook, but keep conscious about difficulties in meeting the "Asian Challenge" in terms of small market share and production capacity.

Figure 1: Revenues Evolution



Source: Company Data

Figure 2: EBITDA Margin Evolution



Source: Company Data

We expect Piaggio to continue its penetration in the appealing fast-growing Asian markets in the next few years. In particular, Piaggio is about to launch 2W vehicles in India in 2012 and four new dedicated mopeds in Vietnam. Although European and American markets should remain fairly stable, the relative weight of these areas on overall revenues will still be important.

From a profitability perspective, since a greater fraction of vehicles will be produced in the Vietnamese and Indian plants (from 40% in 2010 to 56% in 2015) a higher profitability should be delivered (14.5% in 2015 compared to 13% in 2009) thanks to a lower workforce cost.

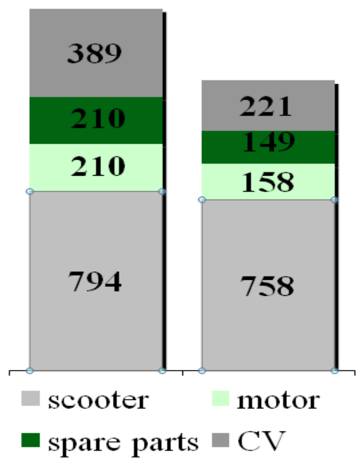
We planned a stable capital expenditure (Eur ~100M per year) in consideration of the current enlargements in the Vietnamese and Indian plants. However, to keep the pace with the growth of the Asian markets, we posted Eur 50M of capex in 2014 for operations further expansion.

The positive cash flow generated (Eur 177M in 2015, +7% 2010-15 CAGR) will contribute to debt repayment, and will allow for a 30% dividend pay-out ratio (we estimated 40% from 2013). We expect the NFD to improve from Eur 352M in 2009 to Eur 268M in 2015.

Business Description: Piaggio in a Snapshot

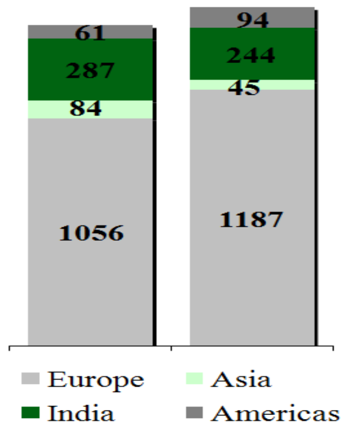
A Global Business. Piaggio Group is the biggest European manufacturer of 2W vehicles and one of the leading players in the sector worldwide thanks to a wide and differentiated portfolio composed by 7 brands (Piaggio, Aprilia, Gilera, Derby, Guzzi, Vespa, Scarabeo) accounting for 410M units in 2009. Piaggio also competes as a major producer of 3-wheeled (3W) and 4-wheeled (4W) LCV branded Ape, Minivan, Quargo, Porter (198M units in 2009). Fundamental differences in growth and market shares impose on Piaggio to get a regional focus on the 2W and LCV business units. As for international peers, Asia represents the main region of interest for future competition on fast emerging markets such as China, India and Vietnam.

Figure 3:
Sales Breakdown by product
Eur M



Source: Company Data

Figure 4:
Sales breakdown by geographic area - Eur M



Source: Company Data

Figure 5:
New Products to be launched

LAUNCH DATE	MODEL	POSITIONING
Feb 2011	Liberty	High-wheel, ultra premium price
Apr 2011	Zip	Medium/ high-price
End 2011	Fly	Medium/ high-price
During 2012	Autocab	High-wheel, medium price
During 2010	Vespa (India)	Premium price

Source: press

Figure 6: P&L (actual) - Eur M

	FY08	*YoY*	FY09	*YoY*	3Q09	*YoY*	3Q10	*YoY*
Revenues	1,570	*-7%*	1,487	*-5%*	1,173	*-9%*	1176	*0%*
EBITDA	189	*-16%*	201	*6%*	172	*-4%*	172	*0%*
EBIT	95	*-31%*	105	*11%*	80	*-5%*	89	*12%*
Net Income	43	*-28%*	48	*10%*	40	*-35%*	47	*16%*

Source: Company Data

Figure 7: Balance Sheet (actual) - Eur M

	FY08	*YoY*	FY09	*YoY*	3Q09	*YoY*	3Q10	*YoY*
Fixed Assets	899	*1%*	892	*-1%*	892	*-1%*	889	*0%*
NWC	-4	*-700%*	17	*525%*	7	*280%*	31	*331%*
Equity	397	*-16%*	422	*6%*	444	*12%*	444	*0%*
NFP	498	*20%*	487	*-2%*	455	*-9%*	476	*5%*

Source: Company Data

Figure 8: CF Statement (actual) - Eur M

	FY08	*YoY*	FY09	*YoY*	3Q09	*YoY*	3Q10	*YoY*
Cash From Operations	128	*-24%*	125	*-2%*	98	*-4%*	90	*-8%*
Cash From Investing Activities	-89	*5%*	-91	*-2%*	-90	*-84%*	-72	*20%*
Cash From Financing Activities	-108	*-135%*	138	*228%*	159	*257%*	-82	*-152%*
Net Changes in Cash	-69	*-346%*	172	*349%*	167	*448%*	-64	*-138%*

Source: Company Data

Italian production sites:
- **Pontedera (Pisa)**. Manufacturing of Piaggio, Vespa, Gilera and LCVs targeted to the European market and engines.
- **Scorzé (Venezia)**. Manufacturing of Aprilia scooters and motorbikes and Scarabeo.
- **Mandello del Lario (Lecco).** Manufacturing of Moto Guzzi.
Given the flat market in Europe and America, we presume that these plants are facing overcapacity at present.

International production sites:
- **Martorelles (Barcelona, Spain)**. Manufacturing of Derbi (due to be closed soon);
- **Baramati (India, Maharashtra state).** Manufacturing of domestic LTVs. The plant is currently under enlargement to increase its capacity up to 300K units/year from mid-2012;
- **Vinh Phuc (Vietnam).** Manufacturing of Vespa for the ASEAN area, expected to reach full capacity (150 K units/year) from Jan-2012 with a total workforce of more than 250 employees.

Product innovation in Europe and premium products in Asia. Piaggio is committed to keep its market share (we estimated approx ~17%) in developed countries offering a competitive price/quality mix. Production costs will be trimmed by a cost-cutting strategy through the rationalization of its Italian production facilities and the reduction of product range complexity. At the same time, Piaggio will empower its brands by constant innovation in design, new generation engines (i.e. hybrid) and eco-sustainable solutions.

Piaggio aims to boost its size in the Asian-Pacific area and create the conditions for a long-lasting growth in emerging markets (i.e. China and Vietnam for 2W and India for LVC). To do so, Piaggio is adopting a premiumisation strategy versus its peers. From its enhanced plant in Vietnam, Piaggio is launching new 2W models in adjacent markets (Thailand, Indonesia, Malaysia and Taiwan).

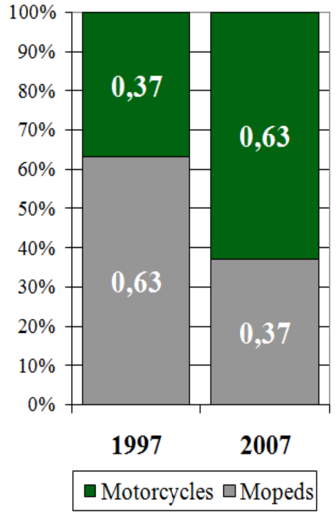
Piaggio's LCV are premium-positioned in India thanks to technological developments in engines (also electric), better comfort and several personalization possibilities. This makes Piaggio's products superior and allows for a higher price. Piaggio's 3W and 4W vehicles hold 42% and 5% market shares respectively. The passenger segment also keeps up with 37% market share.

Industry Overview: a Twofold Reality

Powered Two-Wheeled Vehicles

The global PTW industry posted a +7% 2005-2009 CAGR reaching 49M registrations; the +6.2% growth of 2008 was followed by a flattish trend (-0.3%) in 2009. Growth rates vary across regions and products categories.

Figure 9:
PTW Market Breakdown



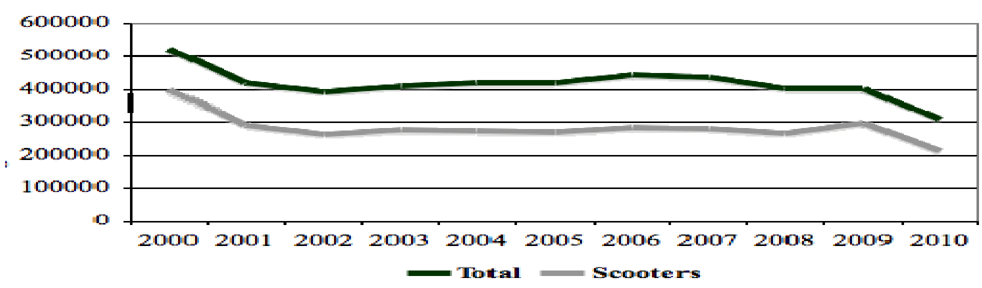
Source: ACEM

In developed countries scooters are meant for urban fast transportation while motorbikes serve a recreational purpose. They are aimed to customers who already possess one or more cars and search for specific characteristics such as dependability, design and performance.

• **The European market** is characterized by the preference for powerful, premium vehicles: the trade organization Acem shows a clear substitution in sales toward more powerful vehicles, according to seemingly changed consumers' preferences. Even if in 2009 registrations (1M) marked a +12% YoY, overall, the European market is considered mature and will be characterized by flat volumes. It is also strictly connected to the legislative evolution on environment and safety (Euro 3 engines, insurance, new rules on driving licenses). Technological change will mostly be towards hybrid engines and eco-sustainable vehicles along with safety solutions, as customer preferences seem to impose. Besides Piaggio the competition includes the traditional Japanese players (Honda, Yamaha, Suzuki, Kawasaki), BMW, Peugeot, and new Asian manufacturers such as Kymco and Sanyang. Piaggio's European market share is 10%. Japanese Producers Yamaha and Honda share the leadership with a 13% market share.

• **Italy** is the main market for motorcycles in Europe, representing about 35% of units sold. It has fallen in 2010 to 307K registration after a period of relative stability at about 400K registrations per year since 2001. Over years it has registered a spectacular drop of 50cc mopeds substituted by steep increases of 125cc scooters on the back of government scrap incentives.

Figure 10: Italian Registrations
Registration units



Source: ACEM

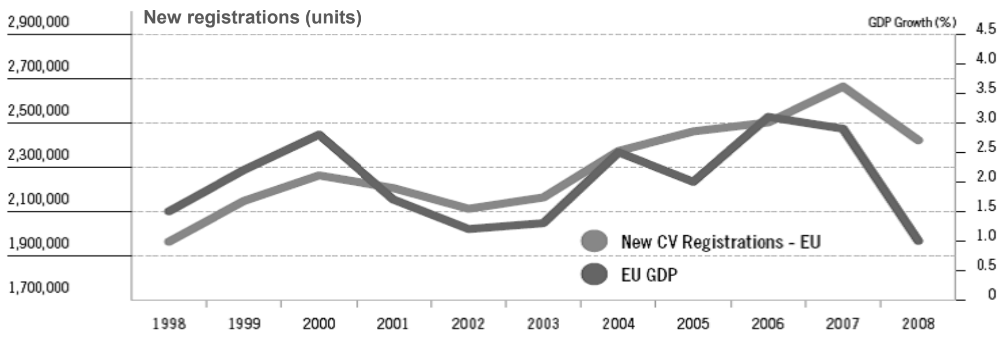
- **North American** 2-W market is the third largest worldwide in value terms with 500K vehicles sold in 2009 (o/w 90% motorbikes). Recent crisis conditions negatively affected the industry (-14% 2005-2009 CAGR).
- **In Emerging Countries** 2-W vehicles are the prime means for family transportation and for work purposes. Vehicles sold in these areas are smaller, cheaper, less powerful than in developed countries. 90% of 2W in these areas are designed for mass production with premium products at just 10%. Customer's preferences are based upon price and maintenance costs. Nonetheless, premium brands enjoy increasing popularity.
  - **Indonesia, Thailand and Vietnam** represent recent expansion targets for Piaggio with 36K units sold in 2009 (+62% YoY). Overall, Asia-Pacific area consists of 40M registrations every year (80% of world total registrations) o/w 19% by Honda and 13% by Yamaha. Piaggio competes with a 0.1% market share from a premium positioning, mostly since its entrance in the Vietnamese market with Vespa (2% market share.
- In the next two years more premium scooters will be launched by Piaggio (please refer to the table above). In Asia a strong growth is expected in the next few years mainly driven by: demographic expansion, increasing purchase power and penetration in more rural areas. This will also shift into more premium products' demand.

Light Commercial Vehicles

Piaggio CV operates in Europe and India.

The European LCV (<3.5 tons weight) market dropped to 1.4M registrations in 2009 with a -20% 2007-2009 CAGR. LCV registrations are highly cyclical.

Figure 11: New European LCV registrations



Source: ACEA

In Europe LCV are mostly used for cargo transport in urban areas, where small size and great capacity are critical. Piaggio is the leading manufacturer for LCV <2.5 tons, a segment for which demand is more stable. Indeed, Piaggio performed slightly better than the market with a 18% volumes decline.

The Indian market for LCV, after the fall recorded during 2008, posted a strong +19% recovery with about 600K 3W and 4W vehicles sold in 2009.

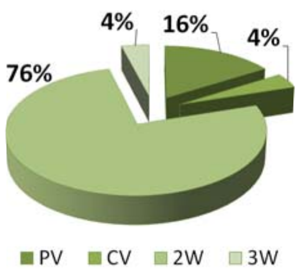
Figure 12: India Automobile Domestic Registration Sales Trends Y/Y

Nr of Vehicles

Category	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Passenger Vehicles	18%	8%	21%	12%	0%	26%
Commercial Vehicles	22%	10%	33%	5%	-22%	38%
3-W	8%	17%	12%	-10%	-4%	26%
2-W	16%	14%	12%	-8%	3%	26%
Total	**16%**	**13%**	**14%**	**-5%**	**1%**	**26%**

Source: SIAM

Figure 13:
India Automobile 2009 Sales



Source: SIAM

The success of LCV vehicles in India is explained by the lack of infrastructures in metropolis (i.e. small streets, no parking lots and and heavy traffic congestion). Therefore, LCVs must combine small size solutions and payload capacity at an affordable price. Piaggio is the market leader with 182K LCV sold in 2009 for both passenger and goods transportation, marking +14% YoY increase in units sold with a +5.3% price improvement (EUR1590 in 2009 against EUR1510 in 2008). Bajaj is the main competitor in the fight for the leadership. For the foreseeable future the Indian LCV market is expected to continue its strong growth. Passenger and cargo traffic is expected to grow at an annual rate of 15% - 18%. The increasing traffic will be sustained by strong government investment in public infrastructures. An ambitious national highway development program, involving a total investment of EUR 36Bn up to 2012 has been established.

Competitive Positioning: Still a Long Way to Catch Up

- **In 2009 Piaggio's** volumes recorded a -6% YoY, which resulted in -5% decrease in consolidated revenues. In 3Q 2010 total units sold were 494K units (EUR 1Bn revenues as in 3Q 2009). Piaggo's slow recovery from the global crisis is due to its great exposure to the European 2W market, which is fairly stagnant for total registrations.
- Among peers, **Yamaha** reaches the best performance in total sales: in 2009 the Japanese manufacturer finally saw a slow-down to its spectacular double digit growth lasted for 6 consecutive years with a 20% 2003-2008 CAGR. Yamaha's 2009 weak performance (-8% YoY) comes from a disastrous fall in Europe (-25%) and North America (-45%) almost fully compensated by +5% growth in the Asian market.
- **Honda**, still the worldwide leader for total volumes, after the -10% fall in 2008 recorded +9% in 2009 YoY. The +12% growth of Asian volumes along with +10% in ROW, more than compensated strong declines in Europe (-12%) and North America (-29%).
- **Bajaj**, which is the closest to Piaggio as it also diversifies its production between the 2W and LCV business units, operates mainly in Asia. 3Q 2010 units sold have been 3.4M (70% o/w directed to the Indian market). Almost 90% of the vehicles sold are motorcycles with the rest 10% being 3W CV. In FY 2010 (closing in March), Bajaj registered EUR 1.8Bn Revenues up by 36% YoY. After a fall lasted from 2007 till 2009 in the Indian Market (-39% CAGR), Bajaj recovered at last.

Piaggio: a multi-brand player. Thanks to Aprilia acquisition in 2004, total revenues marked a +34% increase in YoY, and a 7% 2005-2009 CAGR and Piaggio became the 4th group in the motorcycle industry. Although there is still a long way to catch up with the Japanese competitors, Piaggio benefits of a wide range of brands currently under repositioning. In fact, Piaggio stated that no more acquisitions are planned, as it is committed into a deleveraging strategy with a target D/E <1.

Developed Market Positioning

Scooters and LCV leadership in Europe. Within the European market, Piaggio is the only player that offers a broad product range. Main competitors remain the Japanese manufacturers. Honda offers both motorcycles and scooters with a high market share (10% in scooters and 20% in motorcycles). Yamaha, Suzuki and Kawasaki are stronger in sport offering. BMW and Harley Davidson are focused on a well defined niche motorcycle market. The low price segment, mainly the 50-100cc. scooters, has been recently entered by the Taiwanese manufacturer Kymco and some Chinese and Indian Players.

Overall, Piaggio's European market share is 17% in 2W, thanks to a positive track record in racing activities, a loyal customer base and focused brand segmentation. The market is currently very competitive because of the entrance of new low-cost manufacturers. Piaggio's strategy for the foreseeable future is to promote eco-friendly, safe and stylish products with a valuable price/quality mix.

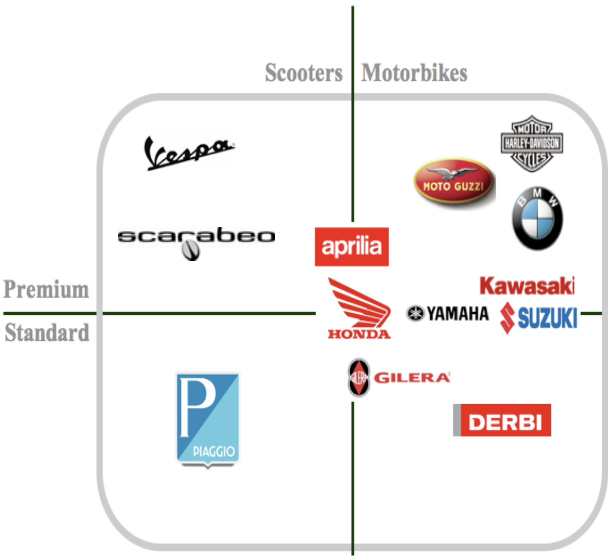
- Piaggio is the absolute market leader in the **European scooter segment**, particularly thanks to its wide advantage in the most important market (Italy) with 46% market share, followed by Honda with 15%.
- It is also the sole player in the **European LCV segment** of vehicles weighting <1.1 tons, in which its products are highly appreciated in terms of dimensions, payload, manoeuvrability, maintenance costs.

Scooters: last call for USA. The US market is worth 70% of the European one. The motorcycle segment is dominated by Harley Davidson and Piaggio has approximately 1% market share. However, a growth opportunity can be found in the scooter segment that will be boosted by increasing oil prices and traffic congestions. Since the market is characterized by high prices and strong brand awareness, Vespa is the ideal product.

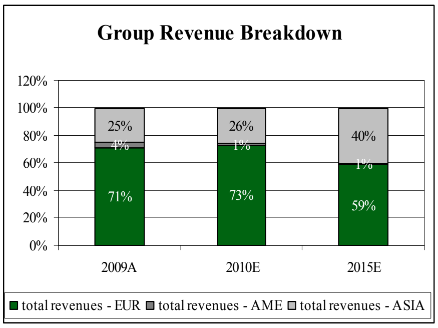
Emerging Countries Positioning

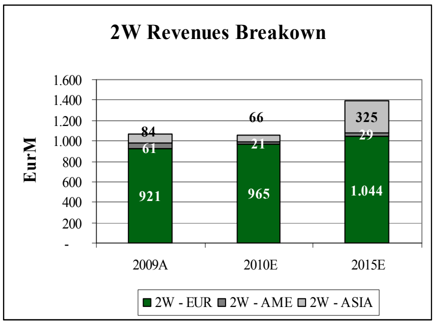
India, the conquer of the LCV market. Since its initial entrance in India during 1998, Piaggio has became the leader in LCV with a market share of 41% in the 3W and 5% in 4W in 2009. The 3-wheeled Ape remains the prime product with 161K units sold (out of 175K) but a wide diversification has been started into 4W vehicles (i.e. Porter, Quargo, Minivan).Piaggio once again owes its leadership to fashionable design and versatility (i.e. best payload/size) compared to competitors. A new 1.2 lt. diesel engine is due to be launched soon.

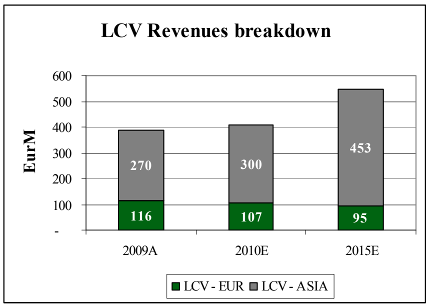
The Asian Challenge. Asian 2W market is controlled by Honda and Yamaha, both offering a full range of vehicles, with 20% and 13% market share respectively. Other important players are Bajaj, Suzuki and Kawasaki. Piaggio's strong investments on the "Asian challenge" brought to +86% YoY revenues increase in 2009 (+111% in 3Q2010). Nonetheless there is still a long way to catch-up with Japanese manufacturers, making both almost Eur 5Bn revenues in 2009 against Eur 84M by Piaggio. Accordingly, Piaggio decided to occupy a premium stand point with the Vietnam-made Vespa. Strategic plan's estimates state that the increasing purchase power in these emerging economies will turn into more premium products sales. Strong upside opportunities are also related to the entrance into the 2W Indian arket after the successful Vietnamese experience with Vespa, especially considering that Bajaj (Indian 2W market leader) produces no scooters at all. To achieve its growth objectives Piaggio is currently enlarging its Vietnamese and Indian plants for the production and launch of other premium products mentioned above (avg. EUR 2K/unit). Potential growth in Vietnam, Thailand, Taiwan, Indonesia and Malaysia is expected to add up approximately 10M registrations per year-overall. We estimate that Piaggio's volumes may grow up to 100K in next few years, thus saturating the Vietnamese plant capacity (easily expandable, according to Piaggio).

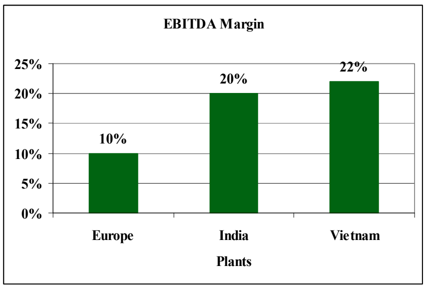


Financial Analysis









Volumes and revenues forecasting

We take a more conservative position on volumes and revenues than that adopted by Piaggio in the 2010-13 Business Plan. This because up till now Piaggio's actual results have always been lower than those stated in the Strategic Plans. Moreover, estimates for 2011 and 2012 has been restated (-7% and -5% respectively) from the earlier 2009-12 plan.

For each geographic area, we base our new registrations forecasts on a regression of past registrations on the local GDP. We have ascertained a high correlation between GDP and 2W and LCV registrations. Thus, we obtain the overall market we apply Piaggio's market share to obtain the local units sold and the average unit price to obtain revenues. This allows us to base our report on a five years forecast, lasting two years more than Piaggio's. However for 2014 and 2015 we maintain an inertial trend (for example, we do not assume the introduction of new products or the penetration of new geographic areas).

2 Wheels

In Europe we expect fairly stable volumes (0% and CAGR 20010-15) while **in Americas** we forecast a 13% CAGR in the same period, but a still a –15% 2008-15 CAGR. In Europe revenues will therefore keep stable to Eur 1Bn representing 58% of the group's revenues in 2015 due to the relativily higher unit prices.

In Asia, most notably Vietnam, we expect a growth in units sold (22% 2010-15 CAGR). However we presume that the premium niche focused by Piaggio will maintain a 2.4% market share in 2015 (from current 2%). Revenues will also increase to Eur 222M in 2015 from Eur 75M in 2010.

In India the introduction of Vespa in 2012 should generate 40K volumes (123K in 2015). Overall, in the Asia Pacific area 2W revenues should increase to Eur 778M from 354M in 2009.

Light Commercial Vehicle

According to Piaggio's 2010-13 Business Plan, in Europe LCV volumes should decrease. Following that prediction we estimate a –3% 2010-15 CAGR in volumes and a consequent decrease in revenues (from Eur 107M to Eur 95M).

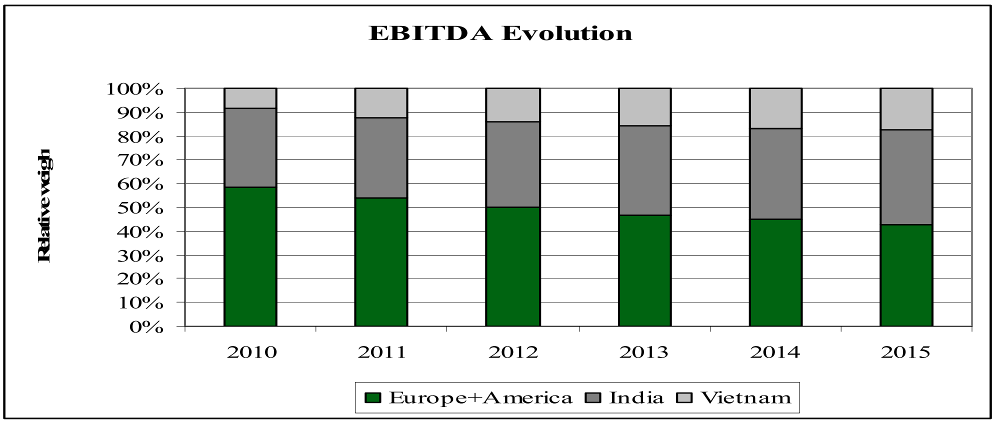
In India, we estimate a 4% 2010-15 CAGR in units to 238K units and a consequent increase in revenues (9% 2010-15 CAGR).

Other sales, as stated by Piaggio, are expected to grow at an inertial rate, that we estimated 6% 2010-15 CAGR.

Profitability

Piaggio adopted the strategy to produce the vehicles for the Asian region in India and Vietnam, thus benefiting of a lower labour costs. The group will therefore enjoy a higher profitability in the Asian plants, compared to those in Europe. The following graph summarize the EBITDA evolution according to our estimates. As it may be seen, we expect that in 2013 the group should not reach the stated target of 15% EBITDA margin.

Figure 14: EBITDA Evolution



Source: our estimates

For D&A and net financial charges we have followed the evolution according to investments and the average Net Financial Debt.

INCOME STATEMENT	2009°	2010E	2011E	2012E	2013E	2014E	2015E
2W	1065	1.0512	1.162	1.241	1.300	1.348	1.398
LCV	386	407	462	490	533	533	548
Sales	1.452	1.458	1.623	1.731	1.833	1.882	1.946
Other sales	37,0	37,6	38,0	38,4	38,9	39,4	39,9
Total Revenues	**1487**	**1496**	**1661**	**1770**	**1872**	**1921**	**1986**
% YoY		*0,6%*	*11,1%*	*6,5%*	*5,8%*	*2,6%*	*3,4%*
Operating costs	-1284	1301	-1442	-1532	-1614	-1654	-1707
Labour costs		244	271	289	305	313	324
EBITDA	**202,8**	**191**	**219**	**238**	**258**	**267**	**279**
EBITDA margin	*13,6%*	*12,8%*	*13,2%*	*13,4%*	*13,8%*	*13,9%*	*14,0%*
D&A	-96,4	-97,4	-98,4	-99,4	-100,4	-101,4	-102,4
EBIT	**106**	**94**	**121**	**138**	**158**	**166**	**177**
EBIT margin	*7,2%*	*6,3%*	*7,3%*	*7,8%*	*8,4%*	*8,6%*	*8,9%*
Net financial income (charges)	-30,3	-33,0	-32,8	-32,5	-32,3	-32,0	-31,8
Pre-Tax	**76,1**	**60,9**	**88,2**	**105,7**	**125,7**	**133,7**	**144,8**
Tax	-26,7	-23,1	-33,5	-40,2	-47,8	-50,8	-55,0
Tax Rate	35,52%	38,0%	38,0%	38,0%	38,0%	38,0%	38,0%
Net Income	**49,1**	**37,7**	**54,7**	**65,6**	**77,9**	**82,9**	**89,8**
% on sales	*3,3%*	*2,5%*	*3,3%*	*3,7%*	*4,2%*	*4,3%*	*4,5%*

We expect an Eur 15M increase in NWC and an approx. Eur 100M capex per year, as forecasted by Piaggio's business plan. However, we assume a Eur 50M additional capex investment in 2014 to enlarge the Asian plants in order to keep the pace of production capacity and market growth.

BALANCE SHEET	2009	2010	2011	2012	2013	2014	2015
Fixed assets	892,3	902,3	912,3	922,3	932,3	962,3	972,3
Net working capital (NWC)	17,2	25,6	40,6	55,6	70,6	85,6	100,6
Total risk funds	-134,0	-134,0	-134,0	-134,0	-134,0	-134,0	-134,0
Shareholders' equità	421,7	446,2	479,1	518,4	565,1	614,9	668,7
Net financial debt	352,0	345,5	337,7	323,4	301,6	296,9	268,0

DCF Valuation

We evaluated Piaggio with a DCF analysis, coming to a share value of Eur 2.59. Given Piaggio's deleveraging strategy, we considered more appropriate to change the WACC rate year after year.

CASH FLOW (EurM)	2010	2011	2012	2013	2014	2015	TV
Net Sales	**1.496**	**1.661**	**1.770**	**1.872**	**1.921**	**1.986**	**2.016**
% YoY		*11,1%*	*6,5%*	*5,8%*	*2,6%*	*3,4%*	*1,5%*
EBITDA	**191**	**219**	**238**	**258**	**267**	**279**	**283**
%	*12,8%*	*13,2%*	*13,4%*	*13,8%*	*13,9%*	*14,0%*	*14,0%*
D&A	**-97**	**-98**	**-99**	**-100**	**-101**	**-102**	**-104**
%	*-6,5%*	*-5,9%*	*-5,6%*	*-5,4%*	*-5,3%*	*-5,2%*	*-5,2%*
EBIT	**94**	**121**	**138**	**158**	**166**	**177**	**179**
%	*6,3%*	*7,3%*	*7,8%*	*8,4%*	*8,6%*	*8,9%*	
Taxes	**-23**	**-34**	**-40**	**-48**	**-51**	**-55**	**-56**
Tax rate	*38,0%*	*38,0%*	*38,0%*	*38,0%*	*38,0%*	*38,0%*	
NOPLAT	**71**	**87**	**98**	**110**	**115**	**122**	**123**
%	*4,7%*	*5,3%*	*5,5%*	*5,9%*	*6,0%*	*6,1%*	*6,1%*
D&A	97,4	98,4	99,4	100,4	101,4	102,4	
Gross OPFC	**168**	**186**	**197**	**211**	**216**	**224**	**227**
%	*11,2%*	*11,2%*	*11,2%*	*11,2%*	*11,3%*	*11,3%*	
Capex		-108	-109	-110	-131	-112	**-114,1**
Change in Net Working Capital	-8,4	-15	-15	-15	-15	-15	**-15,2**
Cash Flow to be discounted		**62**	**73**	**85**	**70**	**97**	**98**

WACC is based on the **following assumptions:**

- **Beta of 0.974** regressed on Morgan Stanley MSCI Index. Alternatively, using the FTSE MIB index, which misses to capture the global asset allocation of a well-diversified portfolio and over-weights the Italian utilities and banking sectors, beta would have resulted a 0.7.
- **Risk-free rate** in line with 10-years German government bonds.
- **Cost of debt: as a result of 180 bps credit spread implied in the yield-to-maturity** of the issued Eur 150M Piaggio's bond on the risk-free rate. From 2011 onwards it is applied to the term structure of the risk-free rate curve.
- **Corporate tax rate of 27.5%,** as we assume that all the group's debt and cash is pooled by the Italian parent company.
- **Target debt-to-equity ratio of 30%**, since Piaggio stated that it is committed on a deleveraging strategy with a target D/E<1 (present D/E is 77%).
- **Normalized growth rate of 1.5%**.

WACC Calculations

WACC	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**TV**
Free Risk Rate (FRR)	*4,11%*	*4,20%*	*4,29%*	*4,38%*	*4,48%*	*4,57%*	*4,67%*
Company Risk Factor or Beta (CRF)	0,97	0,97	0,97	0,97	0,97	0,97	1,00
Mkt Risk Premium (MRP)	*5,00%*	*5,00%*	*5,00%*	*5,00%*	*5,00%*	*5,00%*	*5,00%*
Cost of Equity (Ke)	**8,98%**	**9,07%**	**9,16%**	**9,25%**	**9,35%**	**9,44%**	**9,67%**
Cost of Debt (gross)	*5,88%*	*5,98%*	*6,07%*	*6,16%*	*6,26%*	*6,35%*	*6,45%*
Debt tax rate	*27,50%*	*27,50%*	*27,50%*	*27,50%*	*27,50%*	*27,50%*	*27,50%*
Spread	*1,78%*						
Cost of Debt net (Kd)	**4,27%**	**4,33%**	**4,40%**	**4,47%**	**4,54%**	**4,54%**	**4,60%**
E	446	479	518	565	615	669	
D	346	338	323	302	297	268	
EV	792	817	842	867	912		
E/EV	56,36%	58,65%	61,58%	65,20%	67,44%	71,39%	70,00%
D/EV	43,64%	41,35%	38,42%	34,80%	32,56%	28,61%	30,00%
WACC	**6,92%**	**7,11%**	**7,33%**	**7,59%**	**7,78%**	**8,04%**	**8,15%**

Valuation Summary (EurM)	
PV of Free Cash Flow	308
PV of Terminal Value	1.001
Estimated Enterprise Value	1309
Net Financial Postion	346
Estimated Equity Value	**963**
Nr. of shares (M)	372
Fair value (Eur)	**2,59**

We value Piaggio on the basis of a DCF model. Following our estimates, the fair value is EUR 2.59 growing from today's EUR 2.37 (9.28%). The valuation increase derives primarily from the enlargement of operations in Asia.

The sensitivity analysis on the long term growth rate (g) and the normalized EBITDA margin at the horizon yields a +/- 10% range in the fair value (Eur 2.38 Eur 2.82).

Growth Rate (g)

EBITDA margin	**0,5%**	**1,0%**	**1,5%**	**2,0%**	**2,5%**
15,5%	**2,71**	2,92	3,16	3,45	3,78
15,0%	**2,54**	**2,74**	2,97	3,24	3,55
14,5%	**2,38**	**2,57**	**2,78**	3,03	3,32
14,0%	2,22	**2,39**	**2,59**	**2,82**	3,10
13,5%	2,05	2,21	**2,40**	**2,62**	2,87
13,0%	1,89	2,04	2,21	**2,41**	**2,64**
12,5%	1,72	1,86	2,02	2,20	**2,42**
12,0%	1,56	1,68	1,83	1,99	2,19

We outlined the +/- 10% range around Eur 2.59 fair value (light green area). We then derived the implied sensitivity +/- 10% range around Eur 2.37 current market price (grey area). Finally, the overlap of the two areas reduced the variation within a Eur 2.38 and Eur 2.59 range. Hence, our fair value estimate is positioned in the highest side of this interception.

Normalized growth rate (g)

Normalized WACC

	0,5%	1,0%	1,5%	2,0%	2,5%	3,0
8,00%	2,26	2,44	2,65	2,90	3,19	2,10
8,05%	2,25	2,43	2,63	2,87	3,16	2,09
8,10%	2,23	2,41	2,61	2,85	3,13	2,08
8,15%	2,22	2,39	**2,59**	2,82	3,10	2,06
8,20%	2,20	2,37	2,57	2,80	3,07	2,05
8,25%	2,19	2,36	2,55	2,78	3,04	2,04
8,30%	2,17	2,34	2,53	2,75	3,02	2,02
8,35%	2,16	2,32	2,51	2,73	2,99	2,01

As for the table above, if we compare the long-term growth rate and WACC to current share price, it seems that the market expects a lower normalized growth (1%) and a slightly higher WACC, probably because it expects a final lower D/E ratio.

Multiples Valuation

We analyzed Piaggio compared to its main peers. Given the strong differences between Piaggio and Japanese manufacturers we used median EVs instead of average EVs to control for potential outliers.

The evolution of the P/E ratio also suggests that from 2009 Piaggio is traded at a discount compared to its peers, due to possibly because of its over-exposition to the European market.

	2007	**2008**	**2009**	**Current**
Harley Davidson	12,49	5,75	24,95	21,69
Bajaj	n.a.	n.a.	16,7	23,49
Yamaha	10,87	144,05	180,74	n.a.
Honda	12,66	8,61	30,66	10,22
Median	**12,49**	**8,61**	**30,66**	**21,69**
Piaggio	15,52	11,45	16,67	11,86
Discount/Premium	*24%*	*33%*	*-46%*	*-45%*

We focused our analysis on P/E, EV/Sales and EV/EBITDA to calculate relative valuation price we multiplied our 2011E EPS, Sales and EBITDA for median multiples of key competitors to calculate the relative valuation fair value.

The average of the 2011 prices obtained from the three multiples leads to a fair value price of Eur 2.55.

	P/E			**EV/Sales**			**EV/EBITDA**		
	2010	**2011 E**	**2012 E**	**2010**	**2011 E**	**2012 E**	**2010**	**2011 E**	**2012 E**
Honda Motor Ltd	16,9	12,75	11,2	2,2	1,3	1,15	12,4	9,2	8,1
Mahindra & Mahindra	19,6	13,35	11,75	0,4	0,95	0,8	4,6	7,05	5,65
Yamaha Motor	19,2	13,35	11,2	1,7	0,9	0,75	10,4	6,9	5,85
Bajaj Auto Limited	23,6	12,8	8,1	0,4	0,4	0,3	9	6,8	5
Harley-Davidson Inc	21,8	15,7	13,2	3,2	2,35	1,85	15,5	10,9	8,35
Mean	**20,22**	**13,59**	**11,09**	**1,58**	**1,18**	**0,97**	**10,38**	**8,17**	**6,59**
Median	**19,6**	**13,35**	**11,2**	**1,7**	**0,95**	**0,8**	**10,4**	**7,05**	**5,85**
Piaggio's data	**38**	**55**	**66**	**1.496**	**1.661**	**1.770**	**191**	**219**	**238**
Median EV	**740**	**730**	**734**	**2543**	**1578**	**1416**	**1989**	**1547**	**1390**
NFP				-346	-338	-323	-346	-338	-323
Median Equity	**740**	**730**	**734**	**2198**	**1241**	**1092**	**1644**	**1209**	**1067**
Number of shares	372	372	372	372	372	372	372	372	372
Target Price		**1,96**			**3,34**			**3,25**	

Average Target Price	**2,85**

We set a twelve-month target price of Eur 2.6 (~9% upside potential from current price). Using DCF and multiple models we identified found a fair value for Piaggio between Eur 2.59 and Eur 2.85. Given the limited upside potential, we suggest a target price of Eur 2.6. Weighting opportunities and gains coming from the main risks faced by our valuations, we consider appropriate HOLD recommendation.

We based our rating in consideration on Expected Total Return (expected absolute performance in the next 12 months inclusive of the dividend paid) and on the degree of risk associated with the stock. The level of risk is based on the stock liquidity and volatility and on the analyst's opinion of the business model of the company our rating is "Hold".

Main Risks in Our Analysis

Our analysis is built on a best case scenario, given present information. However, there is room for a downside potential whether anyone of the following risks would emerge.

Negative impact on operating leverage as revenues slow down. The structure of costs remains overexposed to fixed costs, therefore, everything else being equal, a lower-than-expected growth in revenues, (i.e. caused by a failure in the launching of future products in emerging countries) will have a significant negative impact on EPS. A revised growth of -2% (our assumption) could lead to a -22% on EPS in 2013.

Figure 15: Degree of Operating Leverage
Eur M

	2009	2010		2011		2012		2013	
	Current	Current	Sensitivity	Current	Sensitivity	Current	Sensitivity	Current	Sensitivity
Total Revenues	**1.487**	**1.496**	**1.461**	**1.661**	**1.588**	**1.770**	**1.681**	**1.872**	**1.761**
yoy%	**-5,2%**	**0,6%**	**-1,7%**	**11,1%**	**8,7%**	**6,5%**	**5,9%**	**5,8%**	**4,7%**
Gross Profit	**343**	**345**	**337**	**384**	**367**	**409**	**388**	**432**	**407**
Margin%	**23%**	**23%**	**23%**	**23%**	**23%**	**23%**	**23%**	**23%**	**23%**
Other op. costs	-140,5	-154,0	-154,0	-164,2	-164,2	-170,9	-170,9	-173,9	-173,9
EBITDA	**203**	**191**	**183**	**219**	**202**	**238**	**217**	**258**	**233**
% of sales	*13,6%*	*12,8%*	*12,5%*	*13,2%*	*12,7%*	*13,4%*	*12,9%*	*13,8%*	*13,2%*
D&A	-96,4	-97,4	-97,4	-98,4	-98,4	-99,4	-99,4	-100,4	-100,4
EBIT	**106**	**94**	**86**	**121**	**104**	**138**	**118**	**157,9**	**132,3**
% of sales	*7,2%*	*6,3%*	*5,9%*	*7,3%*	*6,6%*	*7,8%*	*7,0%*	*8,4%*	*7,5%*
Pre-Tax	**76,1**	**60,9**	**52,9**	**88,2**	**71,3**	**105,7**	**85,4**	**125,7**	**100,0**
Tax	-26,7	-23,1	-23,1	-33,5	-33,5	-40,2	-40,2	-47,8	-47,8
Net Income	**49,4**	**37,7**	**29,8**	**54,7**	**37,7**	**65,6**	**45,2**	**77,9**	**52,2**
EPS	**0,1**	**0,1**	**0,1**	**0,1**	**0,1**	**0,2**	**0,1**	**0,2**	**0,1**
impact %			**-21%**		**-31%**		**-31%**		**-33%**

Source: our estimates

Cyclicality of demand. Piaggio's business is clearly exposed to the fluctuations of economic ups and downs. This shall offer a stronger growth during recovery, but performance will be disappointing in the event of an economic setback. In Europe, LCVs are more exposed to cyclicality than 2Ws as they are investments for businesses, whereas 2Ws serve recreational purposes.

Regulations. Stricter safety or pollution regulation in developed countries may push the industry players to more environmental-friendly engines. Piaggio's readiness to comply with the new regulations is paramount to stay in the market; in fact the hybrid engine just developed is an strategic asset in this sense.

Exposure to emerging countries. Although this allow Piaggio to benefit from the high demand of motorcycles in this area, operating in these countries exposes to the risk of product imitation, due to a weak enforcement of industrial property regulations.

Exposure to the macroeconomic scenario. Sources of risks from this area are significant.

- In Dec-2010 food inflation reached 18% in Asia. Therefore, we warn about the possibility that increasing food prices will drain the income share possibly designated to buy scooters.

Piaggio's exposure to USD and Rupees fluctuations is limited. Total USD 85M sales in 2009 and Total Rupee sales (19Bn Rupees, or Eur 310M, accounting for 20% of consolidated revenues) are fairly the same of total purchases. Hence, Piaggio possesses a natural hedging for fluctuations.

APPENDIX 1: SWOT analysis

Strengths

- >Well differentiated brand awareness
- >Capillary distribution network in India and Europe
- >R&D function and technology innovation

Weaknesses

- >Great exposure to European market
- >Low products dependability vs. peers

Opportunities

- >Poste Italiane's auction for 14.000 new mopeds
- >Production capacity restructuring
- >Expansion in emerging markets from base plant in India

Threats

- >Increasing competition from low-cost competitors
- >Key products' imitation

Strenghts

The Italian dream. Piaggio's greatest strength is its well established brand Vespa, timeless icon of Italian design, which has always been appealing worldwide. Vespa's sales account for 50% of the total Eur 691M Piaggio's scooters sales in 2007. Beginning from Jun-2009 Piaggio started producing Vespa in Vietnam for the whole Asian Pacific area with expected sales of 15K units during 2H 2009.

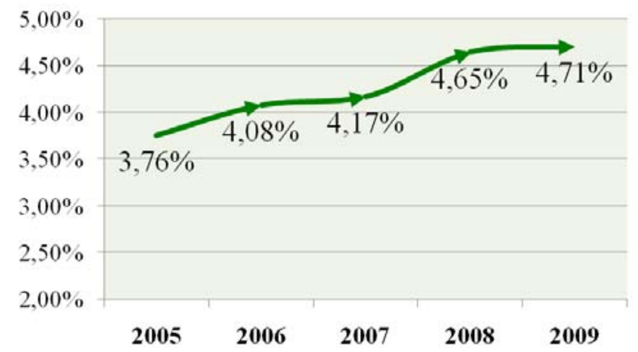
In 2012 the group will launch the Vespa into the Indian market (accounting for 8M vehicles overall). According to the company, the Indian Vespa is expected to uniquely serve the local demand as the product will be tailor made for the needs of those customers and for the particular conditions of the Indian roads. While the pricing of the Vespa in India, although being at premium vs. its local competitors, will be much lower than in Vietnam (roughly EUR 680/units), management stated that the gross operating profitability in India for 2W operations will be slightly over 20%.

Public Grants for Innovation. Piaggio heavily invests in several R&D projects, involving eco-friendly solutions (hybrid and electric engines), safety and enhanced mobility of elderly and disabled people. In the last two years Piaggio invested EUR 70M annually, in some cases receiving public funds.

Project Name	Funds	Sponsor	Developments
De.Tech	Eur 926K (Grant) Eur 7M (Internal Funds)	Italian Ministry of Economic Development	Integrated platform for motorcycles
Mid2R	Eur 6M	Italian Ministry for Education and Research	Ejection systems of conventional and natural gas engines
Eureka One	Eur 1.5M (Grant)	Italian Ministry for Education and Research	High Performing, low environmental impact multicylinder engines
6030	Eur 3M (subsidized loan)	Italian Ministry for Education and Research	Chassis architecture

Independent dealers wake up and start selling. Lastly, Piaggio relies on a wide distribution network of 11K independent operators in Europe. In India, fastest-growing market worldwide, sales reached EUR 154M in 2007 thanks to 250 exclusive dealers. Piaggio built a solid relationship with them, so that the same dealers network will be used to launch 2W vehicles in India in 2012. Being independent entrepreneurs makes them committed to results.

Figure 16: R&D Investments on Revenues



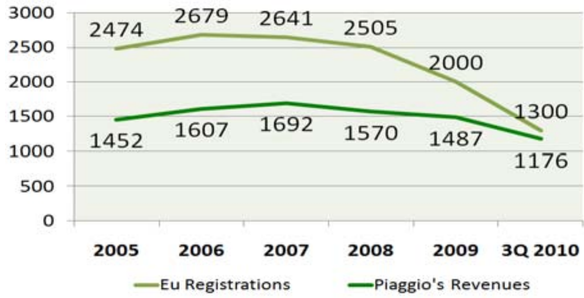
Source: Company Data

Weakness

The European 2W stagnation. As shown above, in 2009 Europe accounted for 76% of consolidated revenues (EUR 1187M out of EUR 1570M). We believe this represents a key drag for the company as the trend of powered two-wheeled vehicles (PTW) registrations is sharply downward and no recovery is expected. Europe is still the main market for Piaggio, accounting for 44% of its FY 2009 sales (Eur 1.5 Bn).

Small size vs. Peers. Piaggio is much smaller than its competitors (e.g. Honda and Yamaha totalized Eur 10Bn and Eur 7Bn revenues respectively in their motorcycle business units in FY 2009). The smaller relative scale is not a major problem in our view. The recent positioning on a more premium end of the market in Asian countries revealed a niche with great growth potential. The focus on the premium niche may protect the group from the Japanese giants. Of course, should a price fight be commenced by the bigger manufacturers, market share sustainability would be threatened.

Figure 17: European Trend vs. Piaggio's Revenues
Registrations/Revenues (Mln)



Source: ACEM, Company Data

Opportunities

Room for profitability improvement. Vietnamese and Indian Plants deliver an EBITDA margin of 22% and 24% respectively, compared to 10% in Europe. Management states Piaggio will further benefit of lower production costs in these plants thanks to the use of lower salary workforce and economies of scale after ongoing expansion. This, together with the production rationalization in Europe and the development of the group global sourcing, will reduce operating costs boosting overall margins. This trend is visible in the recent EBITDA margin growth, but there still is room for improvement (management expects 15% EBITDA margin in 2013 from 13,5% in 2009). Our forecasts for EBITDA are in the Valuation section.

Figure 18: Piaggio key industrial metrics - Eur M

		2005	2006	2007	2008	2009	3Q 2010
Sales (K-units)		590	681	709	648	608	494
	of which Asia	*17%*	*20%*	*26%*	*28%*	*36%*	*41%*
Revenues		1,452	1,608	1,692	1,570	1,489	1,176
EBITDA		185	204	226	189	203	172
EBITDA margin		*12.7%*	*12.7%*	*13.4%*	*12.0%*	*13.6%*	*14.6%*

Source: Company Data

Figure 19: Annual Average GDP Growth

China	**9,50%**
India	**8,20%**
Ethiopia	8,10%
Mozambique	7,70%
Tanzania	7,20%
Vietnam	7,20%
Congo	7,00%
Ghana	7,00%
Zambia	6,90%
Nigeria	6,80%

Source: The Economist

Full steam pace. In addition to profitability upside potential, volume growth in Asian markets is expected. According to Mr. Colaninno (Piaggio's Chairman and CEO), after reaching full steam capacity in 2012, Vietnamese plant will bring up to ~75K units sold per year in the whole Asian-Pacific region, contributing for 10% of consolidated revenues.

Neglected Countries. A further growth option is represented by the possibility to sell PTW vehicles in Africa and Brazil. **Baramati's** plant could be strategic for a potential future entry in Africa, which could be appealing for the PTW in the next 4-5 years. We do not consider this option in our model, given the unclear position of Piaggio to date.

Poste Italiane's bid. Lastly, it is likely that Piaggio will benefit once again from Poste Italiane's bid, which could account for 14k new scooters in 2011. The potential impact would be up to 10% of domestic volumes. Last Poste Italiane's bid in 2007 accounted for Eur 37M and contributed for a +4.8% YoY revenue increase.

Threats

Do not wake the sleeping dog. Up till now, Piaggio does not constitute a threat for the much bigger Japanese manufacturers, as it focuses on a relatively small niche. However, should the Japanese giants be attracted by premium segment's potential, it is likely that Piaggio would succumb.

Product Imitation. Vespa and other leading model are under a constant imitation threat that harms both revenues and Piaggio's image. Although legal actions have already been taken, the impact on revenues cannot be forecasted yet.

APPENDIX 2: Growing by Acquisitions

Piaggio started its operations in **1882** in Pontedera (Pisa). It is well-known for the Vespa scooter, originally developed in **1946**, but with a design that is still fashionable today and makes it the company's flagship. Beginning from **1965** Piaggio started diversifying its production thanks to the acquisition of Gilera.

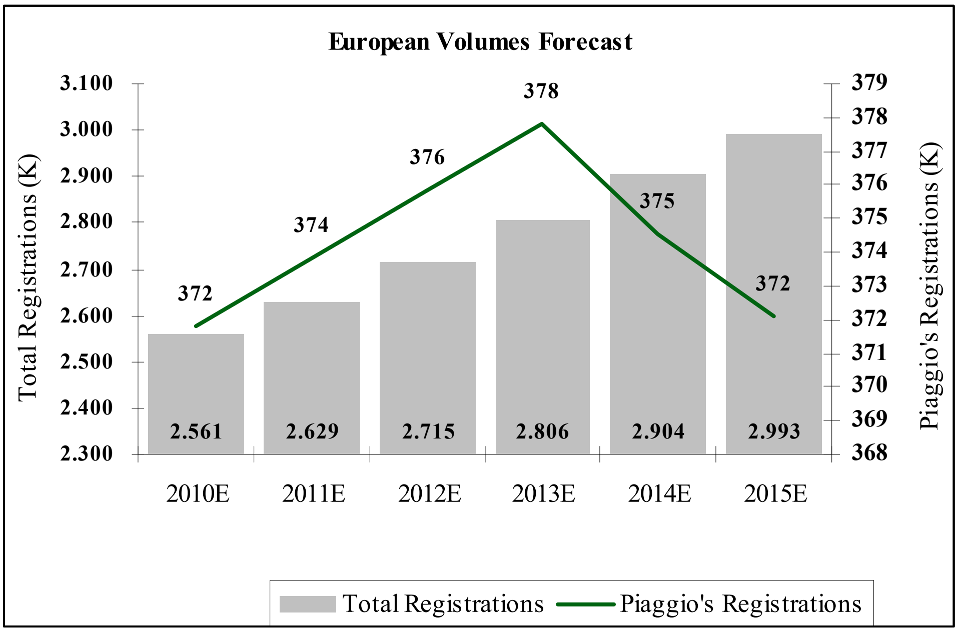
Further diversification was pursued with the creation in 1991 of a joint venture with Daihatsu Motor Co. Ltd. (P&D S.p.A., with Piaggio at 51%), with the purpose of producing a family of LTV vehicles, called Porter, based on the Daihatsu's technology. The remaining 49% of P&D was finally acquired in **2003**.

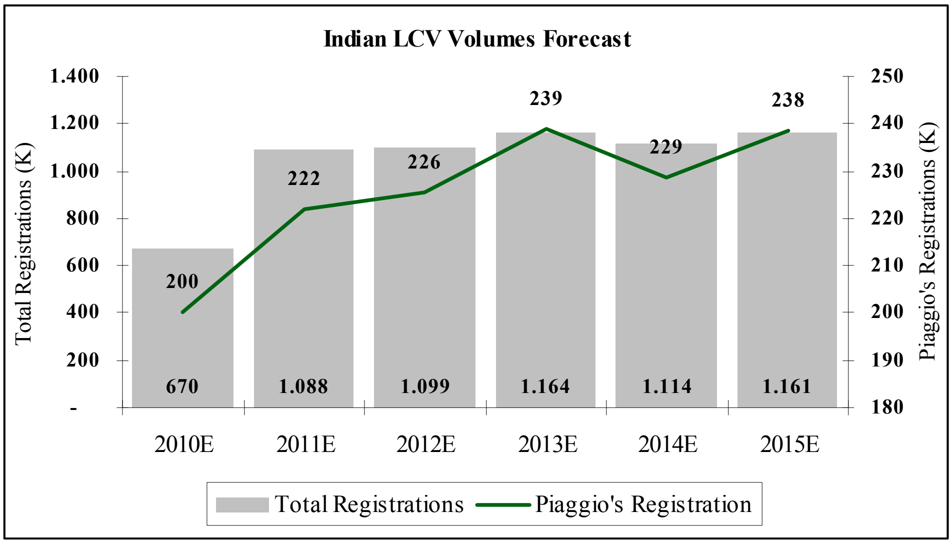
The internationalization was further enhanced in **1993**, thanks to a joint venture in China called Piaggio Foshan Motorcycle Company Ltd., with the purpose of starting the production of 2W vehicles addressed to the local market.

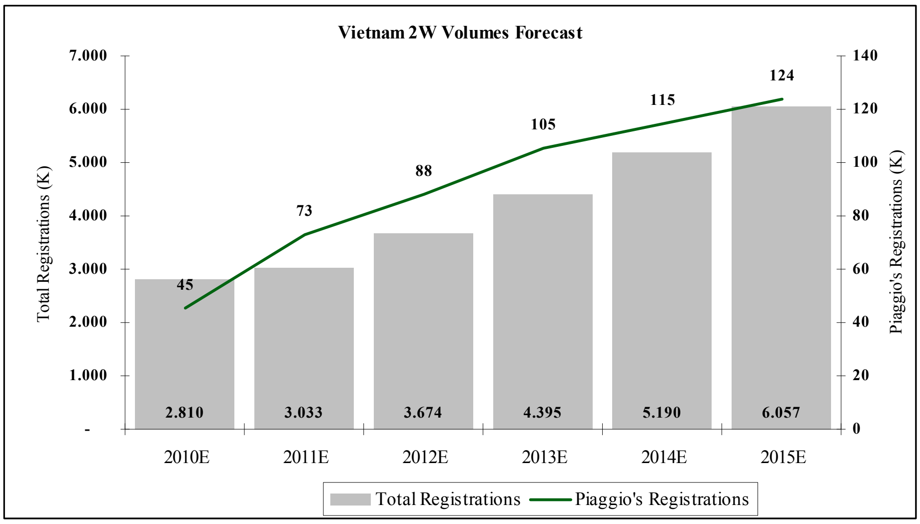
- In **1998** Piaggio invested in India through the constitution of a third industrial joint venture, in which it holds a 51% share, called Piaggio Greaves Vehicles Private Ltd., to develop engines for CVs.
- In **2001** the Piaggio Group acquired the whole equity of the Spanish company National Motor S.A., owner of the "Derbi" brand. Gilera returned to races.
- In **2003** Piaggio's ownership was transferred to IMMSI S.p.A., controlled by Roberto Colaninno, from Morgan Grenfell, a private equity firm that had acquired the company in 1999.
- In **2004** the company resolved the Chinese joint venture Piaggio Foshan Motorcycle Co. Ltd., which is now held at 45% by Piaggio. For this reason, the joint venture is not found in the group's consolidated statement.
- In **2005** Piaggio completed the acquisition of the Italian motorcycles manufacturer Aprilia and its subsidiaries, including Moto Guzzi S.p.A. Aprilia was facing a deep financial crisis at the moment. Piaggio thus became the 4th motorcycle manufacturer in the World.
- In **2006** Piaggio was listed in the Italian stock market. "Piaggio Holding Netherlands BV" and "Scooter Holding 1 S.r.l." sold 30.93% of Piaggio's equity to the market. The market capitalization following the IPO was EUR 274M. Mr. Colaninno, through IMMSI S.p.A, remains the major shareholder with a 56% stake.
- During the same year the first 3-wheels scooter, Piaggio´s "MP3", is presented.
- In **2008** the Group revisited its organizational structure into two business units (2W and CVs). The Italian pilot Marco Simoncelli won the 250 cc World Championship with its Gilera.
- In **2009** the planning of a new hybrid engine was completed.
- In **2010** Max Biaggi wins the SBK World Championships riding an Aprilia.

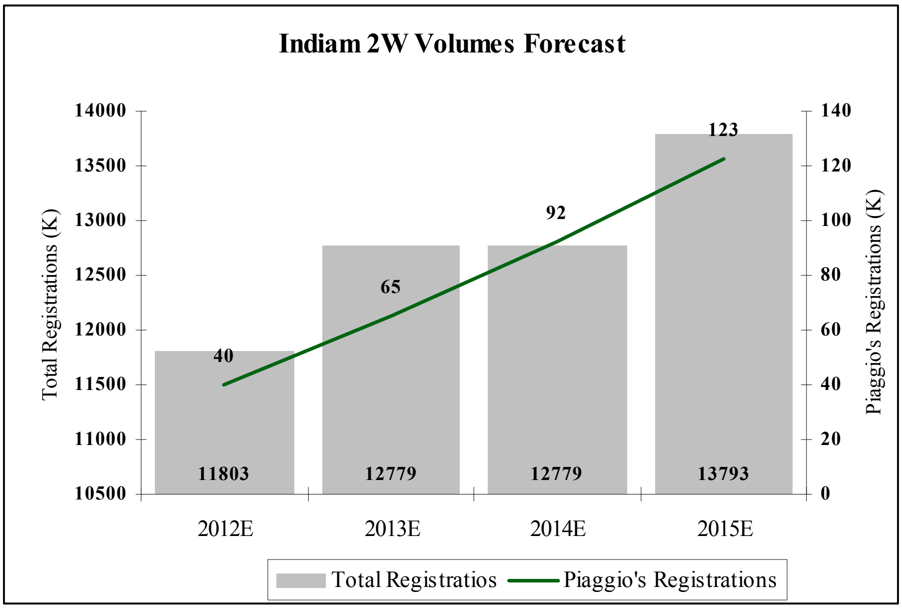
APPENDIX 3: Piaggio's volume forecast

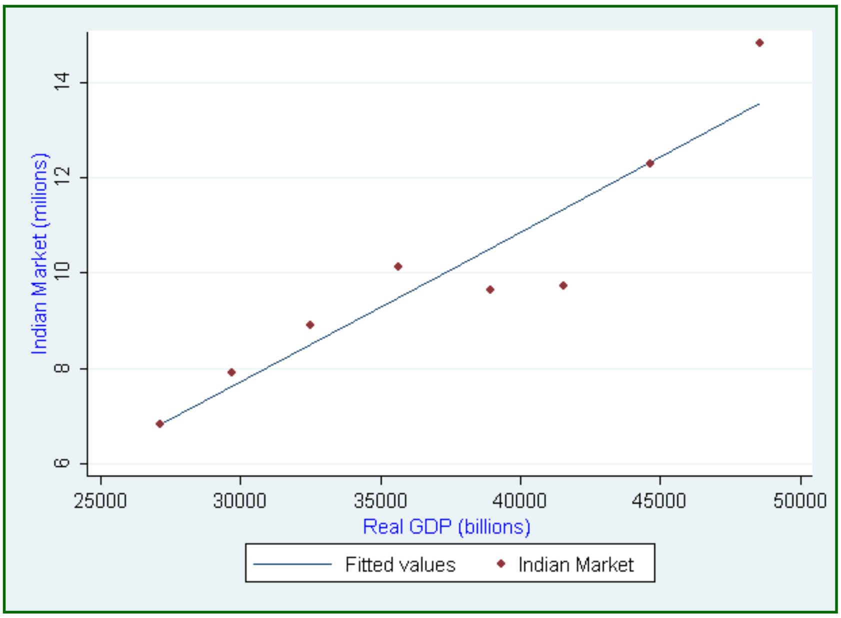
To forecast new registrations we have regressed past registrations by geographic area (Europe, India, and Vietnam) with the local GDP, having ascertained that the two are highly correlated.
Thus, to obtain Piaggio's units sold we have applied Piaggio's market share. When relevant, we have differentiated by 2W and LCVs (India).
The following tables summarize units sold by geographic area.

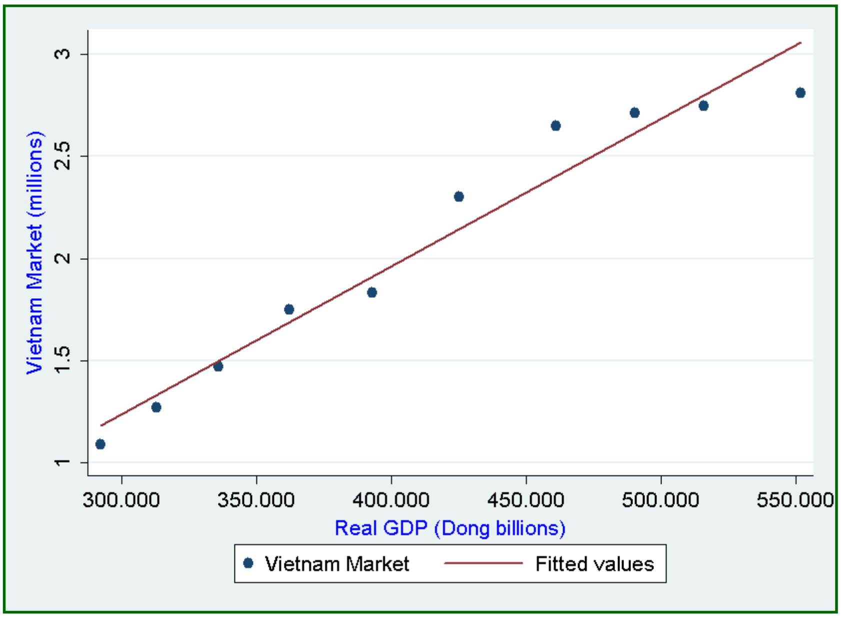





Vietnam 2W Volumes Forecast
Total Registrations (K)
Piaggio's Registrations (K)
7.000
6.000
5.000
4.000
3.000
2.000
1.000
-
140
120
100
80
60
40
20
0
45
73
88
105
115
124
2.810
3.033
3.674
4.395
5.190
6.057
2010E
2011E
2012E
2013E
2014E
2015E
Total Registrations
Piaggio's Registrations


Indiam 2W Volumes Forecast
Total Registrations (K)
Piaggio's Registrations (K)
14000
13500
13000
12500
12000
11500
11000
10500
140
120
100
80
60
40
20
0
40
65
92
123
11803
12779
12779
13793
2012E
2013E
2014E
2015E
Total Registratios
Piaggio's Registrations


Indian Market (milions)
6
8
10
12
14
25000
30000
35000
40000
45000
50000
Real GDP (billions)
Fitted values
Indian Market


Vietnam Market (millions)
1
1.5
2
2.5
3
300.000
350.000
400.000
450.000
500.000
550.000
Real GDP (Dong billions)
Vietnam Market
Fitted values

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