



India: Automobiles

Equity Research

Deconstructing the 2-wheeler value creation engine; Buy Bajaj Auto

40%+ cash returns for 10 years: hidden risks or opportunities?

Indian 2-wheeler market leaders Hero Moto and Bajaj Auto have generated on average over 40% cash returns on capital invested for over 10 years, placing them among the most profitable companies globally. We believe this naturally raises questions about the sustainability of such high returns.

Deconstructing high returns reveals three main drivers

Our analysis reveals three main drivers of their returns on capital: 1) **Less global competition** – only two significant Japanese competitors in the mass-market motorcycle segment globally (vs. 12 in cars). We estimate this alone drives 10-20 pt of incremental cash returns. 2) **Fragmented vendor and distributor base** – leading to a favorable negative working capital position, driving another 10-18 pt of higher returns. 3) **Lower R&D investments** – at 0.5%-2% of revenue vs 3%-7% spent on average by global automakers, driving up to 5 pt of higher returns on capital.

Stocks look undervalued under a stressed normalization scenario

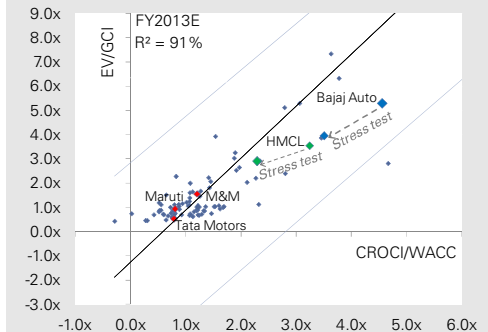
We stress test our valuations for Bajaj Auto and Hero Moto by assuming some drivers normalize and converge with global auto peers in FY2013E: 1) Reversal in working capital, if vendor/distributors consolidate over time. 2) Higher R&D costs if consumers demand higher technology motorcycles. Even in a stressed scenario, these stocks generate top quartile +25% CROCI, and imply 13-45% upside on Director's Cut vs GS India coverage.

Market structure drives top quartile returns; Buy Bajaj (CL), Hero

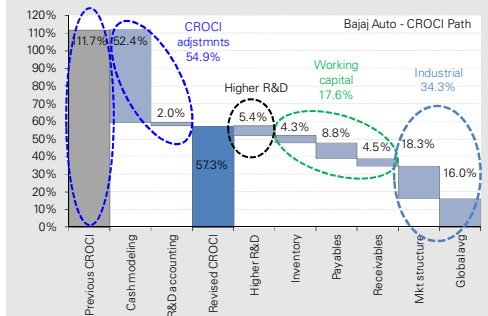
1) **Less competitive market, with changing consumer aspirations.** Two-wheeler market size is relatively unattractive for most global automakers, in our view. As consumers shift to higher technology motorcycles in the long run, we believe market participants who can offer relevant technology and brand will emerge as winners, namely Honda, Bajaj and Yamaha. 2) **Sustainable demand growth.** Low penetration in Asian, N-11 markets, where we find Honda, Bajaj, Hero and Yamaha have first-mover advantage. We reiterate Buy on Bajaj Auto and have added it to our Conviction List, and also upgrade Hero Moto to Buy (see *Buy, Buy, Sell: Bottom-up choices amid rally; Buy Bajaj, Sell Maruti*, dated February 15, 2012).

Key risks: rapid emergence of electric bike technology; change in tax structure; increasing success of Japanese competitors.

DIRECTOR'S CUT RELATIVE TO GS INDIA COVERAGE



DECONSTRUCTING BAJAJ AUTO'S CASH RETURNS



RELATED RESEARCH

India: Automobiles: Buy, Buy, Sell: Bottom-up choices amid rally; Buy Bajaj, Sell Maruti, dated February 15, 2012.

India: Automobiles: Two-wheelers: Business model drives returns on capital; Buy Bajaj, dated October 5, 2011.

Turn more positive on two-wheelers; Buy Bajaj, Hero up to Neutral (Oct 25, 2011)

Source: Datastream, Goldman Sachs Research estimates.

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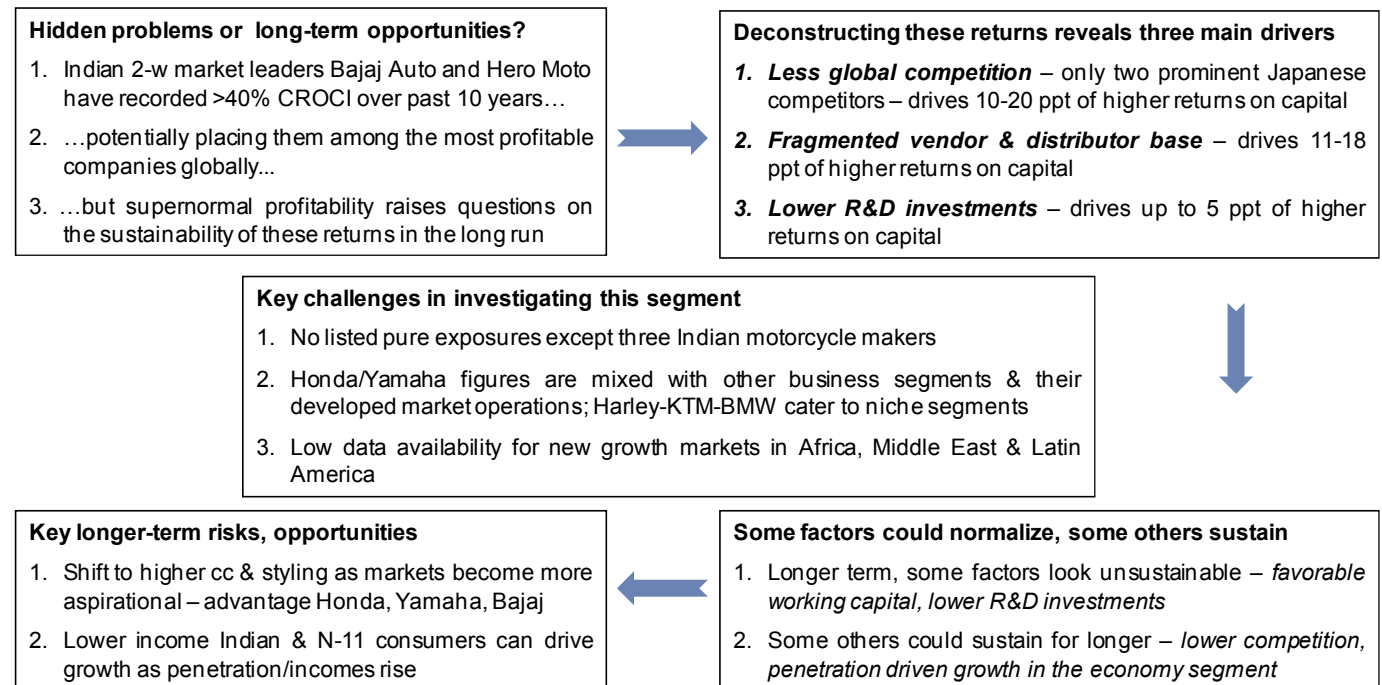
Exhibit 1: CROCI comparison – global auto and auto parts coverage group

Company Name	CROCI													
	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2008	CY2009	CY2010	CY2011E	CY2012E	CY2013E	
Bajaj Auto	14%	22%	20%	25%	25%	59%	48%	24%	30%	41%	48%	50%	50%	1st Qtle
Ashok Leyland	9%	7%	11%	14%	14%	23%	20%	8%	8%	11%	13%	15%	15%	2nd Qtle
Hero MotoCorp	46%	60%	98%	67%	68%	49%	35%	38%	62%	42%	37%	38%	38%	3rd Qtle
Maruti Suzuki India	7%	10%	18%	22%	24%	27%	27%	19%	26%	24%	15%	12%	14%	4th Qtle
Tata Motors			19%	23%	22%	19%	8%	-8%	2%	13%	16%	15%	14%	
Mahindra & Mahindra			20%	13%	17%	14%	14%	11%	15%	8%	9%	10%	17%	
TVS Motors	17%	22%	28%	22%	15%	10%	6%	7%	8%	10%	14%	15%	15%	
Bosch India	13%	15%	18%	27%	31%	26%	26%	22%	22%	29%	27%	29%	30%	
MRF		9%	10%	6%	8%	11%	12%	12%	14%	14%	12%	13%	14%	
Exide Industries			11%	13%	13%	15%	19%	23%	30%	26%	21%	23%	26%	
Bharat Forge		14%	18%	20%	17%	15%	13%	8%	5%	10%	12%	13%	14%	
Apollo Tyres			6%	5%	10%	22%	19%	15%	26%	15%	10%	10%	10%	
Bridgestone	4%	10%	10%	10%	7%	7%	8%	6%	6%	5%	8%	11%	11%	
Michelin	7%	7%	9%	8%	7%	7%	9%	5%	6%	10%	8%	8%	8%	
Goodyear Tyres		4%	8%	12%	5%	4%	2%	-3%	3%	4%	8%	7%	8%	
Pirelli				4%	4%	1%	6%	5%	1%	8%	7%	9%	10%	
Continental	8%	14%	13%	16%	16%	15%	11%	8%	9%	11%	11%	12%	12%	
Hankook Tire	12%	10%	16%	14%	14%	10%	13%	9%	14%	13%	22%	14%	12%	
Hyundai Mobis	10%	21%	20%	14%	8%	14%	11%	16%	13%	24%	25%	11%	11%	
Hyundai Motor	7%	7%	26%	9%	13%	14%	11%	4%	14%	23%	12%	15%	14%	
Volvo	3%	6%	8%	12%	12%	15%	10%	7%	6%	13%	16%	15%	15%	
Scania	7%	11%	12%	12%	10%	16%	23%	18%	5%	20%	15%	13%	13%	
Renault		12%	10%	13%	9%	8%	9%	6%	3%	6%	7%	6%	7%	
BMW	18%	17%	16%	14%	13%	12%	12%	8%	6%	16%	15%	14%	13%	
Peugeot	11%	12%	11%	12%	10%	8%	10%	-4%	3%	8%	6%	6%	7%	
Fiat	1%	-1%	-1%	3%	9%	9%	10%	9%	5%	7%	13%	13%	12%	
Daimler AG	5%	6%	6%	4%	6%	6%	9%	7%	2%	14%	10%	10%	12%	
Toyota Motor	13%	12%	11%	12%	15%	18%	17%	10%	13%	12%	9%	11%	12%	
Suzuki Motor	0%	0%	7%	11%	13%	13%	12%	7%	9%	13%	10%	10%	10%	
Nissan Motor	8%	12%	12%	6%	7%	11%	11%	11%	11%	9%	10%	11%	12%	
Mazda Motor	3%	5%	6%	6%	6%	8%	6%	1%	2%	3%	0%	2%	2%	
Honda Motor	14%	14%	10%	11%	10%	12%	18%	15%	15%	16%	13%	16%	17%	
Hino Motors	4%	4%	7%	6%	6%	6%	6%	1%	3%	7%	6%	7%	7%	
Ford Motor Company			12%	20%	14%	7%	3%	-2%	4%	14%	28%	93%	44%	
Average	10%	12%	15%	14%	14%	15%	14%	10%	12%	15%	15%	16%	15%	

Source: Company data, Goldman Sachs Research estimates.

2-wheelers: Deconstructing cash returns – our methodology

Exhibit 2: Our analysis of Indian 2-wheeler market leaders' returns on capital reveals three main drivers of high returns, namely market structure, fragmented vendors & distributors driving favorable working capital, and low R&D costs
Outline of our methodology and results



Source: Goldman Sachs Research estimates

Exhibit 3: We make changes in our cash returns calculation, and conduct a scenario analysis to deconstruct sources of returns on capital

Changes in modeling for cash on balance sheet, and our detailed scenario analysis methodology

Modeling changes in calculation of cash returns

1. **Cash level** – we now assume 25% of total assets is cash required in the business i.e. ~50% of cash.

As a result, DACF – ↑ corresponding interest income, GCI - ↑ cash required in business

2. **R&D capitalization** – we now assume all R&D expense is capitalized with 5-year amortization.

As a result, DACF - ↑ R&D expense added back, GCI - ↑ R&D expense (accumulated)

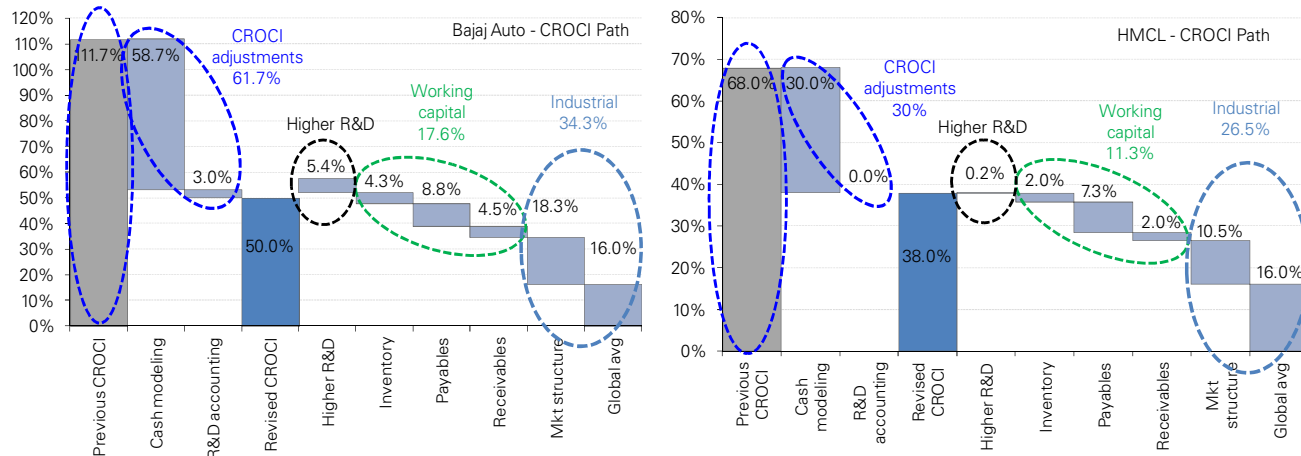
Scenario analysis - negative working capital position normalizes, and R&D costs rise in FY13E.

1. **Total current liabilities** – nil vs. about 45 payable days current assumption.
2. **Receivables** – assuming 21 days vs. about 14 days, in line with Indian sector average.
3. **Inventory turnover** – assuming 37 days vs. about 18 days, in line with Indian sector average.
4. » **Total W/C days** = 58 days vs. 48 days global auto average
5. **R&D expense** – 3.5% of sales (regional auto average, same as Harley Davidson) Vs. ~1% currently.

Source: Goldman Sachs Research estimates

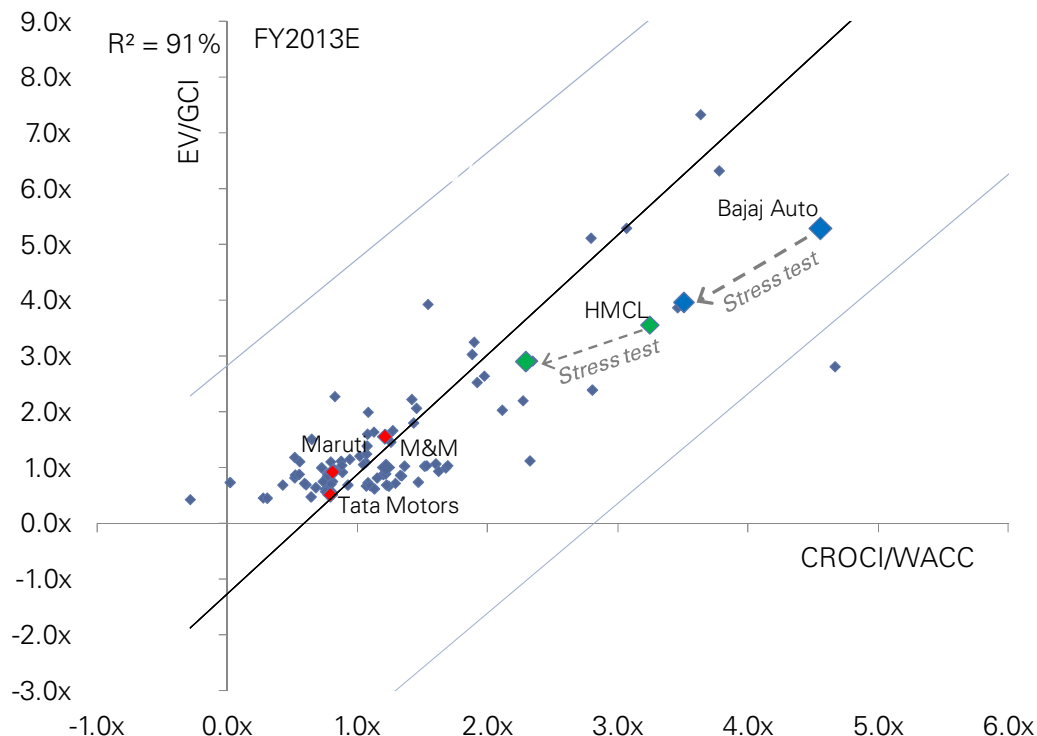
Returns and valuation impact, if key drivers should normalize

Exhibit 4: Breakdown of returns reveals three key drivers
 Bajaj Auto and Hero Moto – CROCI waterfall charts



Source: Goldman Sachs Research estimates.

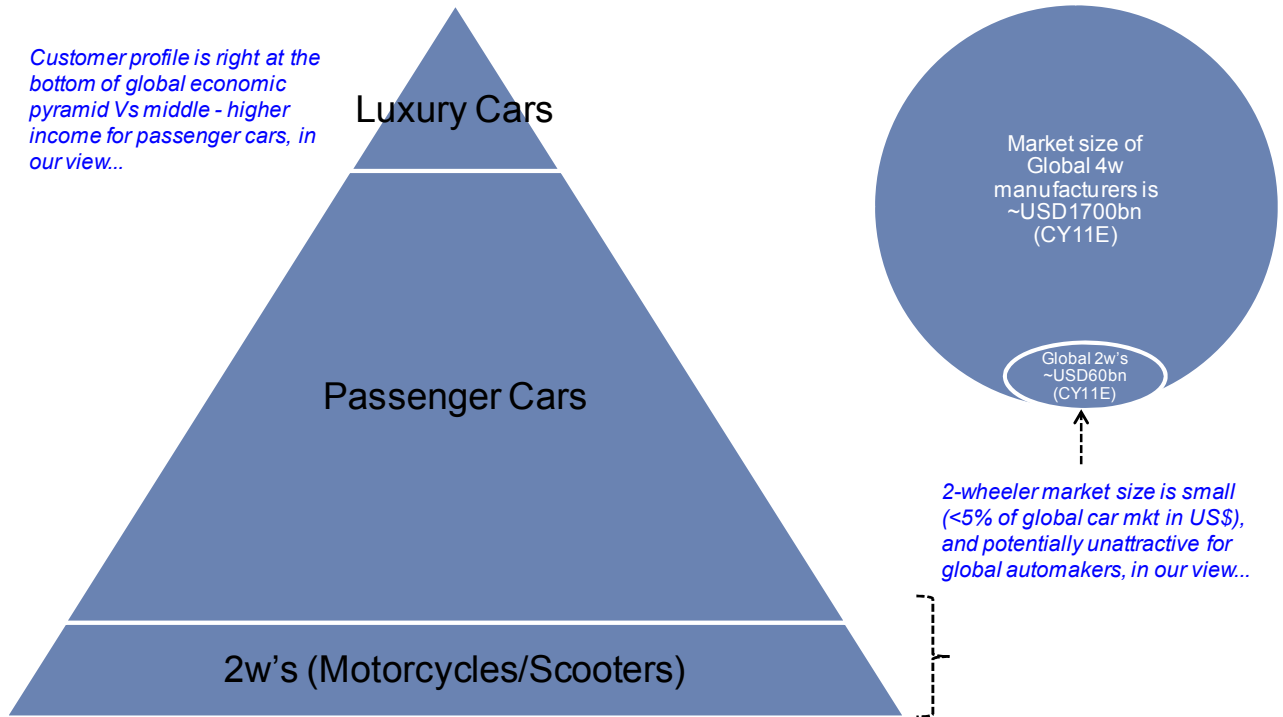
Exhibit 5: Bajaj Auto and Hero Moto look undervalued on Director's Cut relative to broader GS India coverage, even under our stress scenario assumptions
 Director's Cut relative to broader GS India coverage



Source: Datastream, Goldman Sachs Research estimates.

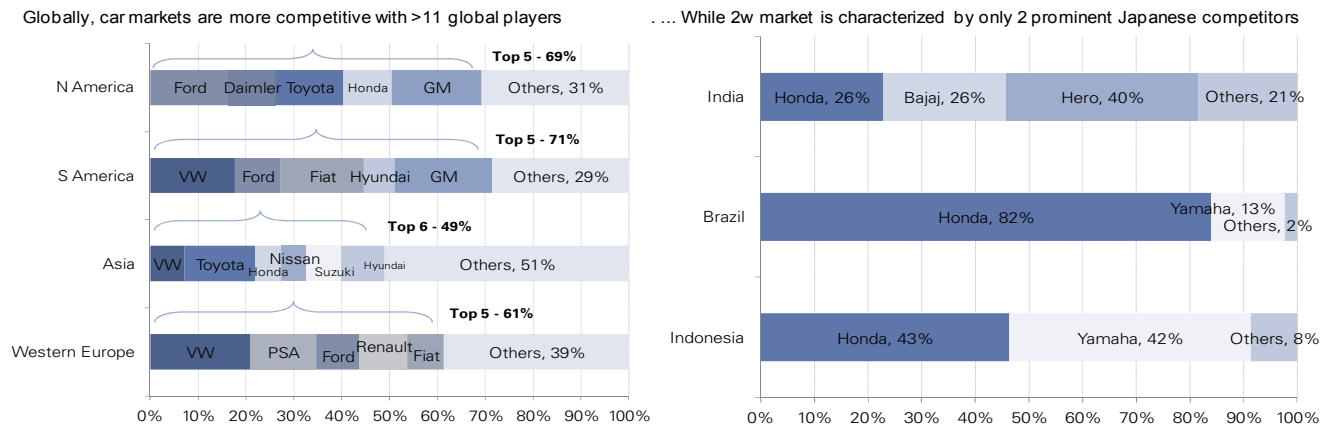
Evaluating sustainability of less competitive market structure

Exhibit 6: We believe the market size (by value) and customer profile of majority of the 2-wheeler market is potentially unattractive for global automakers to focus on
Market size comparison (indicative only)



Source: Goldman Sachs Research estimates.

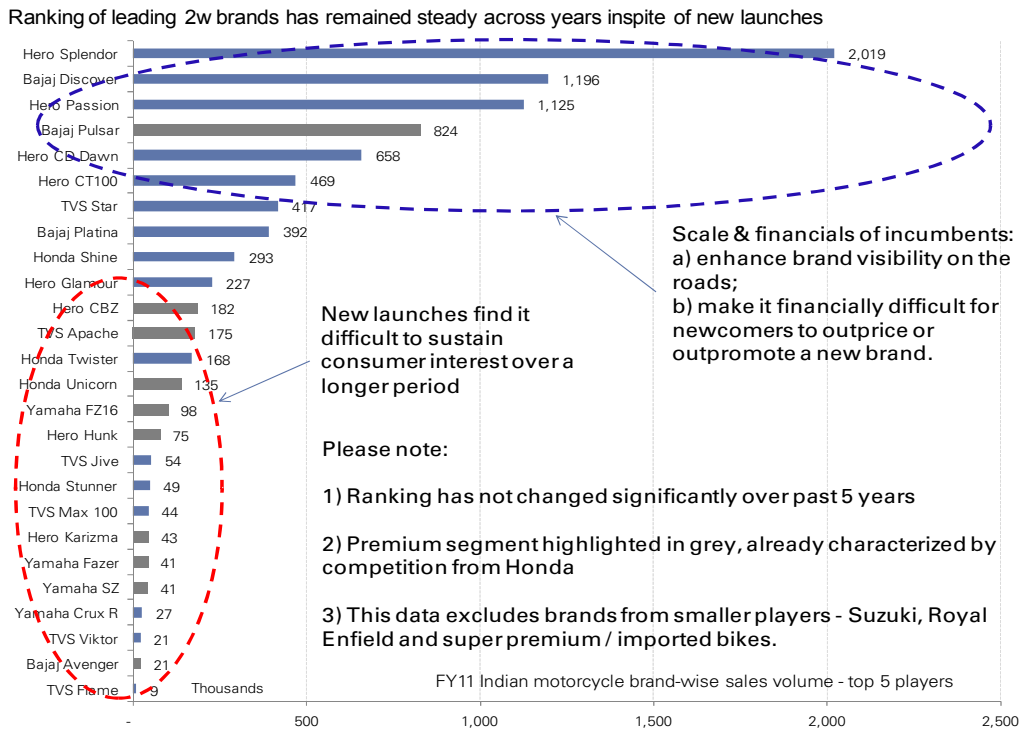
Exhibit 7: Globally, 2-wheeler markets are less competitive than car markets, with the possible exception of China
Competitive structure of passenger car markets vs 2-wheelers



Source: Global Insight, Company data.

Exhibit 8: Brands also pose a barrier to entry for new competitors, enhancing sustainability of incumbent position and overall market structure in our view

Sales volume of leading motorcycle brands in India during Y/E 03/2011



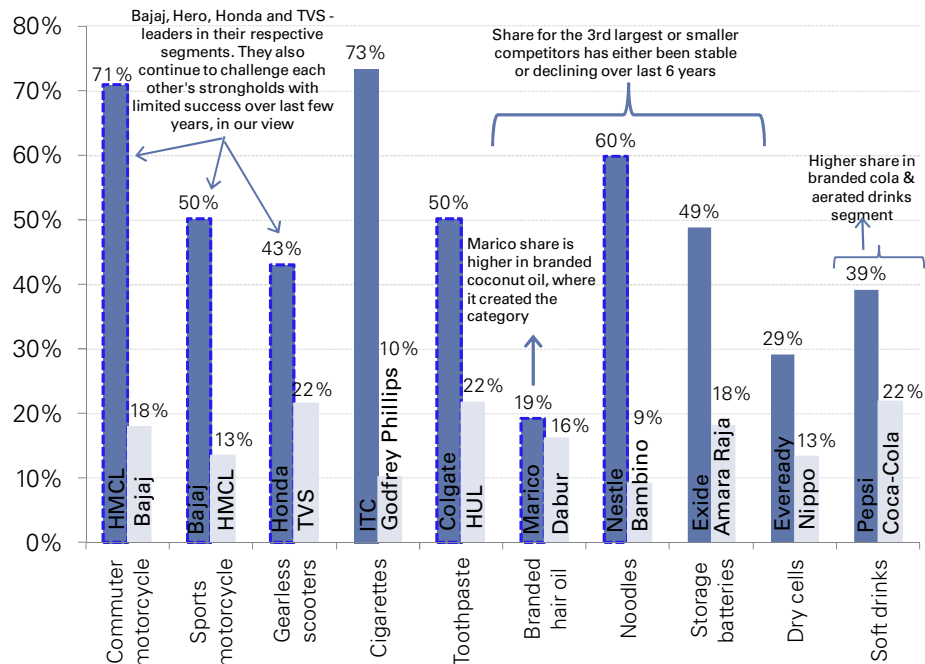
2w markets elsewhere have seen similar stickiness for incumbent brands, such as Brazil, Indonesia, Nigeria, and others

We believe lower-income consumers are less willing to experiment, and stick to brands with reputations for longer-term durability, efficiency

Used 2w market also poses entry barriers, in our view. Established brands command premium to new brands.

Source: CMIE, Goldman Sachs Research estimates.

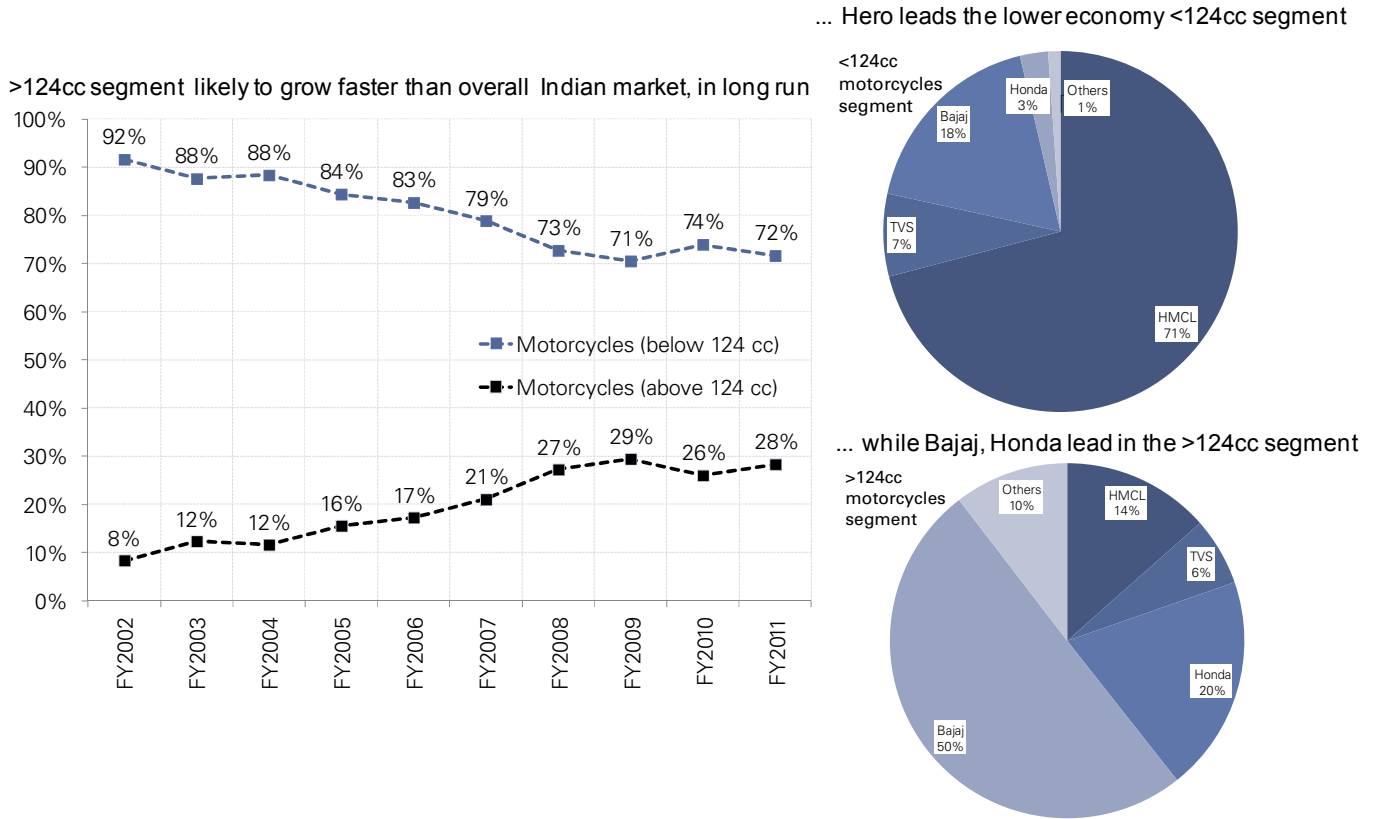
Exhibit 9: This is consistent with our observation of stable market shares of incumbents across other consumer categories – law of duality in branding, first-mover advantage



Source: Global Insight, CMIE, SIAM, Goldman Sachs Research estimates.

Shift to higher technology could benefit Honda, Bajaj, Yamaha

Exhibit 10: A longer-term shift to bigger engine / higher technology motorcycles in markets like India could work to the advantage of competitors such as Honda, Yamaha and Bajaj Auto, which have relevant technology and brand offerings in the premium segments



Source: SIAM, CMIE, Goldman Sachs Research estimates.

Exhibit 11: Bajaj Auto product strategy has covered the entire pricing chain, with relevant technology and brands from the economy to the premium motorcycle segments
Key brands of global and local 2-wheeler manufacturers (2010)

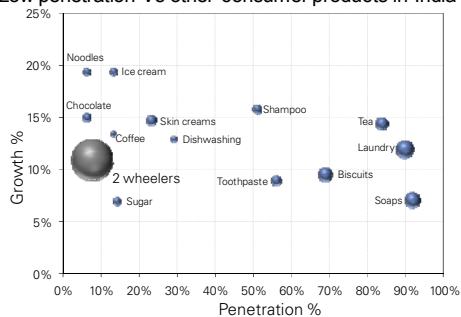
Price range in USD	>5000	Kawasaki KTM			CBR 250 VFR	VMAX	Hayabusa
	1501-5000	KTM Pulsar	CBZ Xtreme Karizma	Apache	CB Unicorn CBR 150	YZF R15 Fazer	GS150R
	801-1500	Discover Pulsar	Splendor Passion	Jive Flame	CB Shine CB Twister	FZ YBR 110	Slingshot
	500-800	Platina Boxer	CD Dawn CD Deluxe	Star City Star Sport	Dream Yuga	Crux	
		Bajaj Auto	Hero Moto	TVS	Honda	Yamaha	Suzuki

Source: Autocar India, Goldman Sachs Research estimates.

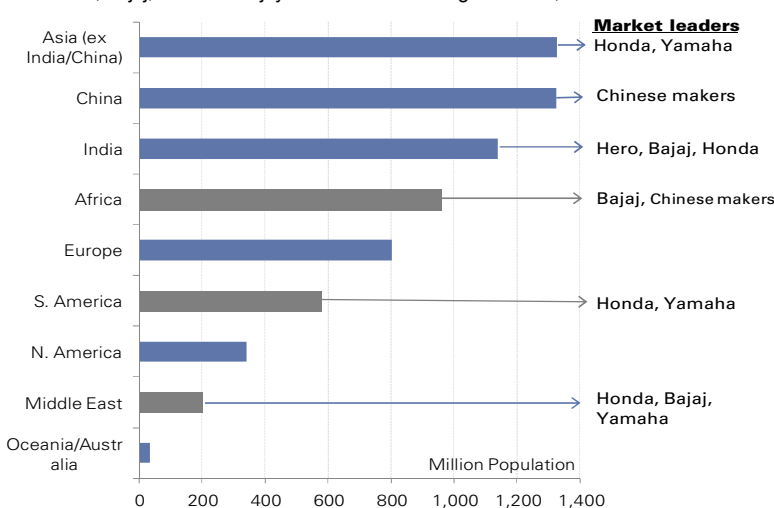
Global markets – first-mover advantage for Honda, Bajaj, Yamaha

Exhibit 12: Penetration in India remains low, with comparable population size in lower-income countries of Asia and Africa

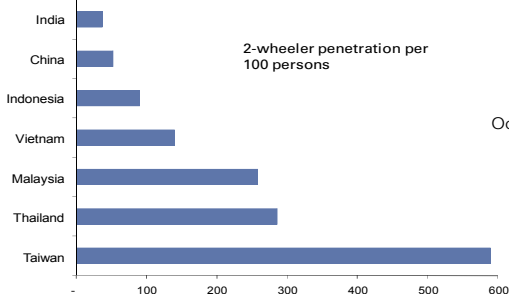
Low penetration Vs other consumer products in India



Honda, Bajaj, Yamaha enjoy first mover advantage in Asian, N-11 markets



... And Vs other regions globally



Source: Global Insight, CMIE, SIAM, Goldman Sachs Research estimates.

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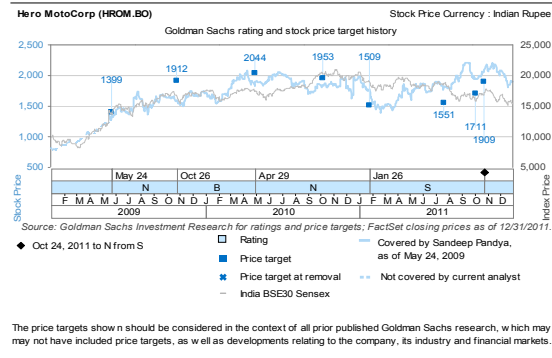
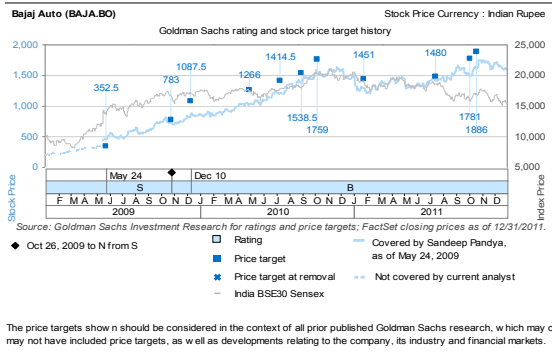
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