

Improving fundamentals

■ Tyre majors raising

As per media reports, tyre maker Michelin announced a 12% increase in truck tyre prices in Africa and India. Apollo Tyres is present in both these geographies. As per an article in *Rubber World*, Yokohama Tire raised truck tyre prices by 8%. We believe this sets the stage for price increases by other tyre manufacturers and bodes well for the fundamentals of the tyre industry.

■ Natural rubber prices have softened

Over the past two weeks, natural rubber prices in India have declined from Rs240/kg to Rs220/kg. Natural rubber costs are 30% of revenues for Apollo Tyres. We assume a natural rubber cost of Rs225/kg for Apollo Tyres over FY11.

■ Substitution from natural to synthetic rubber can help

We have also analysed the potential for substitution of natural rubber usage in the glove industry and believe that higher rubber prices would lead to substitution of natural rubber by synthetic rubber in that industry.

■ Valuation: price target of Rs78, maintain Buy rating

We derive our price target from our sum-of-the-parts valuation. We value the company's India business at 4.5x the average of FY12-13E (September 2012E) EV/EBITDA and its international business at 5.5x. Apollo Tyres is trading at 7.2x March 2012E PE.

Highlights (Rsm)	03/09	03/10	03/11E	03/12E	03/13E
Revenues	49,841	81,207	85,387	100,977	114,818
EBIT (UBS)	2,937	9,179	6,669	7,767	9,226
Net Income (UBS)	1,307	5,467	3,475	4,068	4,994
EPS (UBS, Rs)	2.63	10.85	6.89	8.07	9.91
Net DPS (UBS, Rs)	0.46	0.75	0.75	0.88	1.08

Profitability & Valuation	5-yr hist av.	03/10	03/11E	03/12E	03/13E
EBIT margin %	-	11.3	7.8	7.7	8.0
ROIC (EBIT) %	-	33.6	17.1	16.8	18.6
EV/EBITDA (core) x	-	3.0	5.1	4.5	3.5
PE (UBS) x	-	4.0	8.4	7.2	5.8
Net dividend yield %	-	1.7	1.3	1.5	1.9

Source: Company accounts, Thomson Reuters, UBS estimates. (UBS) valuations are stated before goodwill, exceptional and other special items. Valuations: based on an average share price that year, (E): based on a share price of Rs57.85 on 03 Mar 2011 23:38 SGT

Ajay Nandanwar
Analyst
ajay.nandanwar@ubs.com
+91-22-6155 6079

Gautam Chhaochharia
Analyst
gautam.chhaochharia@ubs.com
+91-22-6155 6080

Global Equity Research

India

Tires

12-month rating **Buy**
Unchanged

12m price target **Rs78.00/US\$1.73**
Unchanged

Price **Rs57.85/US\$1.28**

RIC: APLO.BO BBG: APTY IB

4 March 2011

Trading data (local/US\$)

52-wk range	Rs87.10-46.35/US\$1.90-1.02
Market cap.	Rs29.2bn/US\$0.65bn
Shares o/s	504m (ORD)
Free float	60%
Avg. daily volume ('000)	1,013
Avg. daily value (m)	Rs58.7

Balance sheet data 03/11E

Shareholders' equity	Rs22.7bn
P/BV (UBS)	1.3x
Net Cash (debt)	(Rs20.3bn)

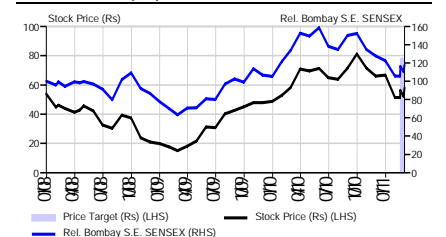
Forecast returns

Forecast price appreciation	+34.8%
Forecast dividend yield	1.5%
Forecast stock return	+36.3%
Market return assumption	13.1%
Forecast excess return	+23.2%

EPS (UBS, Rs)

	03/11E	03/10	Actual
	UBS	Cons.	
Q1	-	-	-
Q2	-	-	-
Q3E	-	-	-
Q4E	-	-	-
03/11E	6.89	6.89	
03/12E	8.07	8.07	

Performance (Rs)



Source: UBS

www.ubs.com/investmentresearch

This report has been prepared by UBS Securities India Private Ltd
ANALYST CERTIFICATION AND REQUIRED DISCLOSURES BEGIN ON PAGE 5.

UBS does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Improving fundamentals

We believe that price increases implemented by Michelin and Yokohama, as well as the marginal decline in natural rubber prices point to improving fundamentals for the tyre industry.

Substitution of natural with synthetic rubber in glove industry

As per *Rubber World*, natural rubber is 43% of the global rubber consumption and synthetic rubber is 57%. Tyre is 63% of the rubber consumption, while Gloves contribute a majority of the remaining rubber consumption.

While tyre manufacturers are not able to flexibly shift between usage of natural vs synthetic rubber, glove manufacturers can shift the usage more flexibly. As per our conversation with Top Glove, natural rubber-based gloves (powder-free gloves) are 27% more expensive than synthetic rubber (Nitrile)-based gloves; the same time last year, natural rubber-based gloves were 9% cheaper than synthetic rubber-based gloves.

Table 1: Rubber consumption

	2010	2011
Natural Rubber	10.7	11.1
Synthetic Rubber	13.6	14.7
Total	24.3	25.8
Natural Rubber, % of total	44%	43%
Rubber consumption for Tyre	63%	63%

Source: Company data, UBS Research

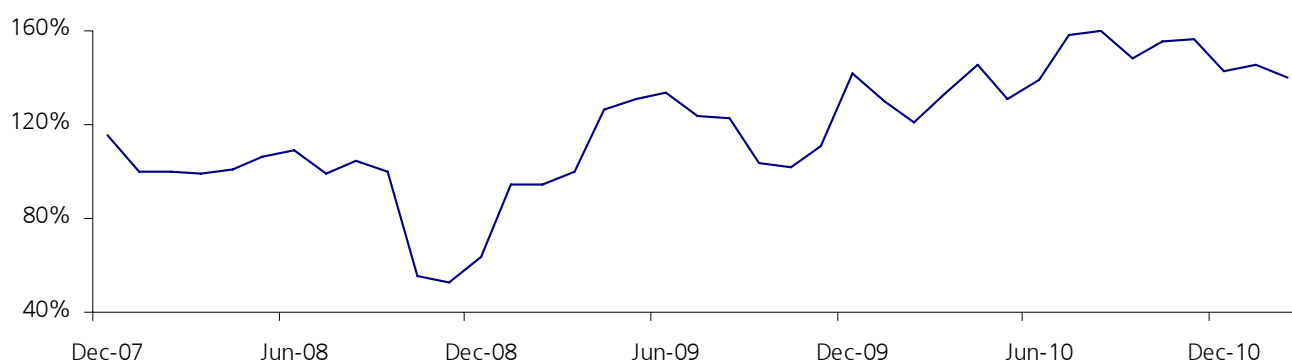
Table 2: Natural rubber and synthetic rubber glove prices

Prices in US\$/1000 gloves	Feb-10	Feb-11
Powder free glove	30	42
Powered glove	25	35
Nitrile gloves	33	33
Powder free over Nitrile	-9%	27%
Powered over Nitrile	-24%	6%

Source: Company data, UBS Research

Nitrile gloves are used in the USA and EU and contribute to 25% of global consumption of gloves. We believe the industry can shift marginally towards nitrile gloves as long as the pricing difference between nitrile and powder-free gloves lasts.

Chart 1: Natural rubber / synthetic rubber prices



Source: Thomson Datastream, UBS Research

Substitution of natural rubber with synthetic rubber will likely improve the supply-demand dynamics of the natural rubber industry and help moderate natural rubber prices.

Apollo Tyres

Income statement (Rsm)	03/06	03/07	03/08	03/09	03/10	03/11E	% ch	03/12E	% ch	03/13E	% ch
Revenues	26,136	42,912	46,952	49,841	81,207	85,387	5.1	100,977	18.3	114,818	13.7
Operating expenses (ex dephn)	(23,898)	(38,916)	(40,979)	(45,618)	(69,486)	(76,085)	9.5	(89,785)	18.0	(101,866)	13.5
EBITDA (UBS)	2,238	3,996	5,973	4,223	11,721	9,302	-20.6	11,191	20.3	12,952	15.7
Depreciation	(730)	(1,172)	(1,299)	(1,285)	(2,542)	(2,633)	3.6	(3,424)	30.1	(3,725)	8.8
Operating income (EBIT, UBS)	1,508	2,823	4,675	2,937	9,179	6,669	-27.3	7,767	16.5	9,226	18.8
Other income & associates	291	337	262	230	238	120	-49.6	274	128.3	309	12.8
Net interest	(577)	(1,196)	(884)	(1,118)	(1,343)	(1,658)	23.4	(2,034)	22.7	(2,160)	6.2
Abnormal items (pre-tax)	0	0	0	0	0	0	-	0	-	0	-
Profit before tax	1,222	1,964	4,053	2,050	8,074	5,131	-36.4	6,008	17.1	7,376	22.8
Tax	(317)	(793)	(1,356)	(742)	(2,607)	(1,657)	-36.4	(1,940)	17.1	(2,381)	22.8
Profit after tax	905	1,171	2,697	1,307	5,467	3,475	-36.4	4,068	17.1	4,994	22.8
Abnormal items (post-tax)	(92)	5	3	6	34	0	-	0	-	0	-
Minorities / pref dividends	(16)	0	0	0	0	0	-	0	-	0	-
Net income (local GAAP)	797	1,176	2,699	1,313	5,501	3,475	-36.8	4,068	17.1	4,994	22.8
Net Income (UBS)	889	1,171	2,697	1,307	5,467	3,475	-36.4	4,068	17.1	4,994	22.8
Tax rate (%)	26	40	33	36	32	32	0.0	32	0.0	32	0.0
Pre-abnormal tax rate (%)	26	40	33	36	32	32	0.0	32	0.0	32	0.0
Per share (Rs)	03/06	03/07	03/08	03/09	03/10	03/11E	% ch	03/12E	% ch	03/13E	% ch
EPS (local GAAP)	2.08	2.78	5.67	2.65	10.91	6.89	-36.8	8.07	17.1	9.91	22.8
EPS (UBS)	2.32	2.76	5.66	2.63	10.85	6.89	-36.4	8.07	17.1	9.91	22.8
Net DPS	0.45	0.49	0.53	0.46	0.75	0.75	0.0	0.88	17.1	1.08	22.8
Cash EPS	4.22	5.53	8.39	5.22	15.89	12.12	-23.7	14.86	22.7	17.30	16.4
BVPS	16.53	20.14	24.20	26.77	39.04	45.07	15.4	52.12	15.6	60.78	16.6
Balance sheet (Rsm)	03/06	03/07	03/08	03/09	03/10	03/11E	% ch	03/12E	% ch	03/13E	% ch
Net tangible fixed assets	9,186	13,723	13,216	17,068	30,961	38,828	25.4	43,404	11.8	42,678	-1.7
Net intangible fixed assets	0	0	0	0	0	0	-	0	-	0	-
Net working capital (incl. other assets)	3,907	4,426	4,863	4,604	6,379	6,837	7.2	8,990	31.5	9,978	11.0
Other liabilities	(1,052)	(1,701)	(1,756)	(1,942)	(2,514)	(2,680)	6.6	(2,874)	7.2	(3,112)	8.3
Operating invested capital	12,041	16,448	16,323	19,731	34,826	42,984	23.4	49,519	15.2	49,544	0.0
Investments	4	54	52	48	59	59	0.0	59	0.0	59	0.0
Total capital employed	12,045	16,502	16,375	19,778	34,884	43,043	23.4	49,578	15.2	49,603	0.0
Shareholders' equity	6,337	9,347	11,822	13,495	19,678	22,714	15.4	26,269	15.6	30,633	16.6
Minority interests	0	0	0	0	0	0	-	0	-	0	-
Total equity	6,337	9,347	11,822	13,495	19,678	22,714	15.4	26,269	15.6	30,633	16.6
Net debt / (cash)	5,708	7,155	4,553	6,283	15,206	20,329	33.7	23,309	14.7	18,970	-18.6
Other debt-deemed items	0	0	0	0	0	0	-	0	-	0	-
Total capital employed	12,045	16,502	16,375	19,778	34,884	43,043	23.4	49,578	15.2	49,603	0.0
Cash flow (Rsm)	03/06	03/07	03/08	03/09	03/10	03/11E	% ch	03/12E	% ch	03/13E	% ch
Operating income (EBIT, UBS)	1,508	2,823	4,675	2,937	9,179	6,669	-27.3	7,767	16.5	9,226	18.8
Depreciation	730	1,172	1,299	1,285	2,542	2,633	3.6	3,424	30.1	3,725	8.8
Net change in working capital	(1,050)	(183)	(357)	317	1,356	(374)	-	(1,841)	392.8	(712)	-61.4
Other (operating)	198	991	319	422	844	286	-66.2	468	63.8	547	16.9
Operating cash flow (pre tax/interest)	1,386	4,803	5,935	4,961	13,922	9,214	-33.8	9,818	6.6	12,787	30.2
Net interest received / (paid)	(577)	(1,196)	(884)	(1,118)	(1,343)	(1,658)	23.4	(2,034)	22.7	(2,160)	6.2
Dividends paid	(200)	(242)	(292)	(263)	(438)	(438)	0.0	(513)	17.1	(630)	22.8
Tax paid	(317)	(793)	(1,356)	(742)	(2,607)	(1,657)	-36.4	(1,940)	17.1	(2,381)	22.8
Capital expenditure	(1,081)	(5,710)	(791)	(5,053)	(10,444)	(10,500)	0.5	(8,000)	-23.8	(3,000)	-62.5
Net (acquisitions) / disposals	0	0	0	0	0	0	-	0	-	0	-
Other	-	292	266	240	261	120	-53.9	274	128.3	309	12.8
Share issues	0	2,554	644	411	0	0	-	0	-	0	-
Cash flow (inc)/dec in net debt	(767)	(634)	3,258	(1,800)	(922)	(5,039)	446.8	(2,669)	-47.0	4,616	-
FX / non cash items	-	(813)	(656)	70	(8,001)	(84)	-99.0	(312)	273.0	(277)	-11.2
Balance sheet (inc)/dec in net debt	-	(1,447)	2,602	(1,730)	(8,923)	(5,123)	-42.6	(2,980)	-41.8	4,339	-
Core EBITDA	2,238	3,996	5,973	4,223	11,721	9,302	-20.6	11,191	20.3	12,952	15.7
Maintenance capital expenditure	(347)	(513)	(518)	(647)	(1,554)	(1,817)	16.9	(2,017)	11.0	(2,092)	3.7
Maintenance net working capital	0	0	0	0	0	0	-	0	-	0	-
Operating free cash flow, pre-tax	1,891	3,482	5,455	3,575	10,167	7,485	-26.4	9,175	22.6	10,860	18.4

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Note: For some companies, the data represents an extract of the full company accounts.

12-month rating

Buy

12m price target

Rs78.00

Company profile

Apollo Tyres is a leading tyre manufacturer in India. It has the highest market share in truck tyres. It has established a presence in South Africa and Europe by acquiring Dunlop's South African operations and Vredestein in the Netherlands.

Valuation (x)	5Yr Avg	03/09	03/10	03/11E	03/12E	03/13E
P/E (local GAAP)	-	11.2	4.0	8.4	7.2	5.8
P/E (UBS)	-	11.2	4.0	8.4	7.2	5.8
P/CEPS	-	5.7	2.7	4.8	3.9	3.3
Net dividend yield (%)	-	1.5	1.7	1.3	1.5	1.9
P/BV	-	1.1	1.1	1.3	1.1	1.0
EV/revenue (core)	-	0.4	0.4	0.6	0.5	0.4
EV/EBITDA (core)	-	4.8	3.0	5.1	4.5	3.5
EV/EBIT (core)	-	6.8	3.9	7.2	6.5	5.0
EV/OpFCF (core)	-	5.6	3.5	6.4	5.5	4.2
EV/op. invested capital	-	1.1	1.3	1.2	1.1	0.9

Enterprise value (Rsm)	03/09	03/10	03/11E	03/12E	03/13E
Average market cap	14,868	21,967	29,158	29,158	29,158
+ minority interests	0	0	0	0	0
+ average net debt (cash)	5,286	13,582	18,621	21,290	16,673
+ pension obligations and other	0	0	0	0	0
- non-core asset value	(48)	(59)	(59)	(59)	(59)
Core enterprise value	20,107	35,490	47,720	50,389	45,772

Growth (%)	5Yr Avg	03/09	03/10	03/11E	03/12E	03/13E
Revenue	-	6.2	62.9	5.1	18.3	13.7
EBITDA (UBS)	-	-29.3	177.6	-20.6	20.3	15.7
EBIT (UBS)	-	-37.2	NM	-27.3	16.5	18.8
EPS (UBS)	-	-53.5	NM	-36.4	17.1	22.8
Cash EPS	-	-37.7	NM	-23.7	22.7	16.4
Net DPS	-	-13.6	64.1	0.0	17.1	22.8
BVPS	-	10.6	45.8	15.4	15.6	16.6

Margins (%)	5Yr Avg	03/09	03/10	03/11E	03/12E	03/13E
EBITDA / revenue	-	8.5	14.4	10.9	11.1	11.3
EBIT / revenue	-	5.9	11.3	7.8	7.7	8.0
Net profit (UBS) / revenue	-	2.6	6.7	4.1	4.0	4.3

Return on capital (%)	5Yr Avg	03/09	03/10	03/11E	03/12E	03/13E
EBIT ROIC (UBS)	-	16.3	33.6	17.1	16.8	18.6
ROIC post tax	-	10.4	22.8	11.6	11.4	12.6
Net ROE	-	10.3	33.0	16.4	16.6	17.6

Coverage ratios (x)	5Yr Avg	03/09	03/10	03/11E	03/12E	03/13E
EBIT / net interest	-	2.6	6.8	4.0	3.8	4.3
Dividend cover (UBS EPS)	-	5.8	14.5	9.2	9.2	9.2
Div. payout ratio (% , UBS EPS)	-	17.3	6.9	10.9	10.9	10.9
Net debt / EBITDA	-	1.5	1.3	2.2	2.1	1.5

Efficiency ratios (x)	5Yr Avg	03/09	03/10	03/11E	03/12E	03/13E
Revenue / op. invested capital	-	2.8	3.0	2.2	2.2	2.3
Revenue / fixed assets	-	3.3	3.4	2.4	2.5	2.7
Revenue / net working capital	-	10.5	14.8	12.9	12.8	12.1

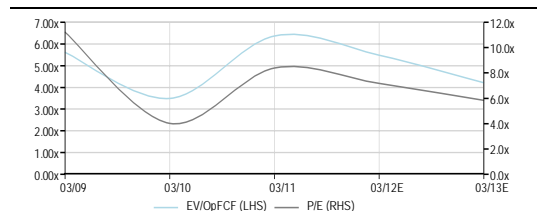
Investment ratios (x)	5Yr Avg	03/09	03/10	03/11E	03/12E	03/13E
OpFCF / EBIT	-	1.2	1.1	1.1	1.2	1.2
Capex / revenue (%)	-	10.1	12.9	12.3	7.9	2.6
Capex / depreciation	-	3.9	4.1	4.0	2.3	0.8

Capital structure (%)	5Yr Avg	03/09	03/10	03/11E	03/12E	03/13E
Net debt / total equity	-	46.6	77.3	89.5	88.7	61.9
Net debt / (net debt + equity)	-	31.8	43.6	47.2	47.0	38.2
Net debt (core) / EV	-	26.3	38.3	39.0	42.3	36.4

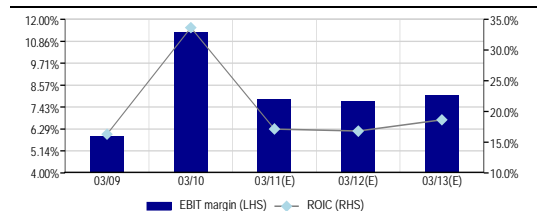
Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptional and other special items.

Valuations: based on an average share price that year, (E): based on a share price of Rs57.85 on 03 Mar 2011 23:38 SGT Market cap(E) may include forecast share issues/buybacks.

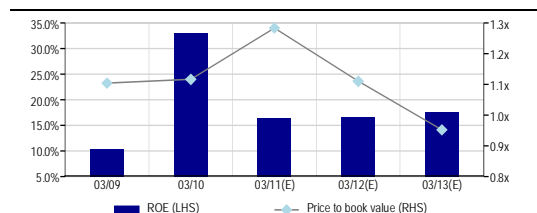
Value (EV/OpFCF & P/E)



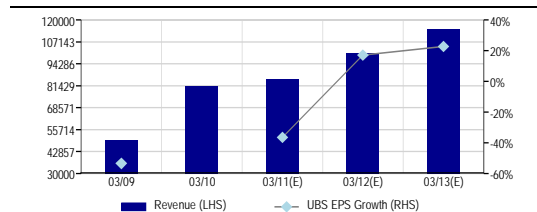
Profitability



ROE v Price to book value



Growth (UBS EPS)



Ajay Nandanwar

Analyst

ajay.nandanwar@ubs.com

+91-22-6155 6079

Gautam Chhaochharia

Analyst

gautam.chhaochharia@ubs.com

+91-22-6155 6080

■ Apollo Tyres

Apollo Tyres is a leading tyre manufacturer in India. It has the highest market share in truck tyres. It has established a presence in South Africa and Europe by acquiring Dunlop's South African operations and Vredestein in the Netherlands.

■ Statement of Risk

We believe the key risks are: 1) a sustained industrial slowdown, 2) A continued increase in raw material prices, 3) Further production interruptions, and 4) Any ruling against Apollo Tyres (and other tyre companies) by the Competition Tribunal in South Africa.

■ Analyst Certification

Each research analyst primarily responsible for the content of this research report, in whole or in part, certifies that with respect to each security or issuer that the analyst covered in this report: (1) all of the views expressed accurately reflect his or her personal views about those securities or issuers; and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by that research analyst in the research report.

Required Disclosures

This report has been prepared by UBS Securities India Private Ltd, an affiliate of UBS AG. UBS AG, its subsidiaries, branches and affiliates are referred to herein as UBS.

For information on the ways in which UBS manages conflicts and maintains independence of its research product; historical performance information; and certain additional disclosures concerning UBS research recommendations, please visit www.ubs.com/disclosures. The figures contained in performance charts refer to the past; past performance is not a reliable indicator of future results. Additional information will be made available upon request. UBS Securities Co. Limited is licensed to conduct securities investment consultancy businesses by the China Securities Regulatory Commission.

UBS Investment Research: Global Equity Rating Allocations

UBS 12-Month Rating	Rating Category	Coverage ¹	IB Services ²
Buy	Buy	49%	40%
Neutral	Hold/Neutral	42%	35%
Sell	Sell	8%	21%
UBS Short-Term Rating	Rating Category	Coverage ³	IB Services ⁴
Buy	Buy	less than 1%	14%
Sell	Sell	less than 1%	0%

1:Percentage of companies under coverage globally within the 12-month rating category.

2:Percentage of companies within the 12-month rating category for which investment banking (IB) services were provided within the past 12 months.

3:Percentage of companies under coverage globally within the Short-Term rating category.

4:Percentage of companies within the Short-Term rating category for which investment banking (IB) services were provided within the past 12 months.

Source: UBS. Rating allocations are as of 31 December 2010.

UBS Investment Research: Global Equity Rating Definitions

UBS 12-Month Rating	Definition
Buy	FSR is > 6% above the MRA.
Neutral	FSR is between -6% and 6% of the MRA.
Sell	FSR is > 6% below the MRA.
UBS Short-Term Rating	Definition
Buy	Buy: Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.
Sell	Sell: Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event.

KEY DEFINITIONS

Forecast Stock Return (FSR) is defined as expected percentage price appreciation plus gross dividend yield over the next 12 months.

Market Return Assumption (MRA) is defined as the one-year local market interest rate plus 5% (a proxy for, and not a forecast of, the equity risk premium).

Under Review (UR) Stocks may be flagged as UR by the analyst, indicating that the stock's price target and/or rating are subject to possible change in the near term, usually in response to an event that may affect the investment case or valuation.

Short-Term Ratings reflect the expected near-term (up to three months) performance of the stock and do not reflect any change in the fundamental view or investment case.

Equity Price Targets have an investment horizon of 12 months.

EXCEPTIONS AND SPECIAL CASES

UK and European Investment Fund ratings and definitions are: Buy: Positive on factors such as structure, management, performance record, discount; Neutral: Neutral on factors such as structure, management, performance record, discount; Sell: Negative on factors such as structure, management, performance record, discount.

Core Banding Exceptions (CBE): Exceptions to the standard +/-6% bands may be granted by the Investment Review Committee (IRC). Factors considered by the IRC include the stock's volatility and the credit spread of the respective company's debt. As a result, stocks deemed to be very high or low risk may be subject to higher or lower bands as they relate to the rating. When such exceptions apply, they will be identified in the Company Disclosures table in the relevant research piece.

Research analysts contributing to this report who are employed by any non-US affiliate of UBS Securities LLC are not registered/qualified as research analysts with the NASD and NYSE and therefore are not subject to the restrictions contained in the NASD and NYSE rules on communications with a subject company, public appearances, and trading securities held by a research analyst account. The name of each affiliate and analyst employed by that affiliate contributing to this report, if any, follows.

UBS Securities India Private Ltd: Ajay Nandanwar; Gautam Chhaochharia.

Company Disclosures

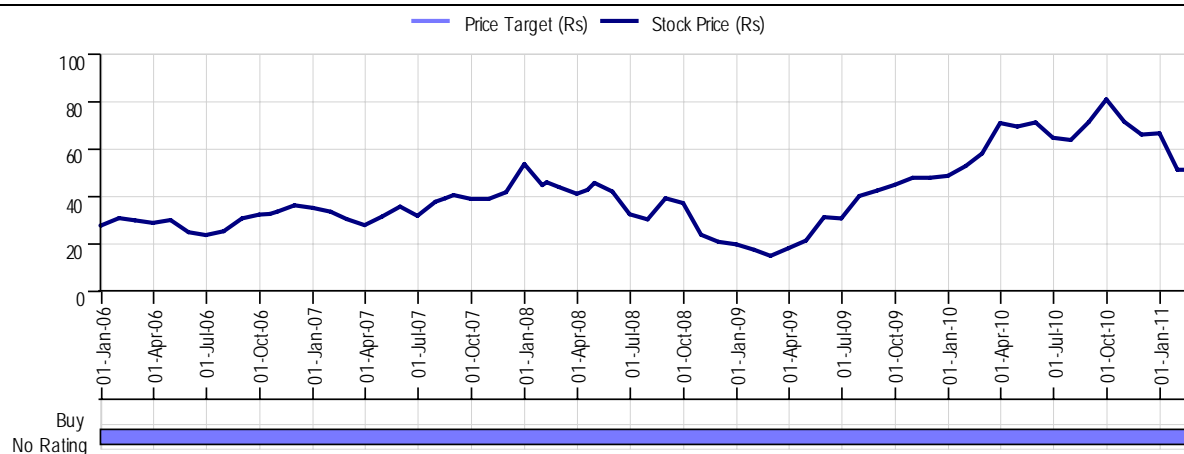
Company Name	Reuters	12-mo rating	Short-term rating	Price	Price date
Apollo Tyres	APLO.BO	Buy	N/A	Rs57.85	03 Mar 2011

Source: UBS. All prices as of local market close.

Ratings in this table are the most current published ratings prior to this report. They may be more recent than the stock pricing date

Unless otherwise indicated, please refer to the Valuation and Risk sections within the body of this report.

Apollo Tyres (Rs)



Source: UBS; as of 03 Mar 2011

Global Disclaimer

This report has been prepared by UBS Securities India Private Ltd, an affiliate of UBS AG. UBS AG, its subsidiaries, branches and affiliates are referred to herein as UBS. In certain countries, UBS AG is referred to as UBS SA.

This report is for distribution only under such circumstances as may be permitted by applicable law. Nothing in this report constitutes a representation that any investment strategy or recommendation contained herein is suitable or appropriate to a recipient's individual circumstances or otherwise constitutes a personal recommendation. It is published solely for information purposes, it does not constitute an advertisement and is not to be construed as a solicitation or an offer to buy or sell any securities or related financial instruments in any jurisdiction. No representation or warranty, either express or implied, is provided in relation to the accuracy, completeness or reliability of the information contained herein, except with respect to information concerning UBS AG, its subsidiaries and affiliates, nor is it intended to be a complete statement or summary of the securities, markets or developments referred to in the report. UBS does not undertake that investors will obtain profits, nor will it share with investors any investment profits nor accept any liability for any investment losses. Investments involve risks and investors should exercise prudence in making their investment decisions. The report should not be regarded by recipients as a substitute for the exercise of their own judgement. Past performance is not necessarily a guide to future performance. The value of any investment or income may go down as well as up and you may not get back the full amount invested. Any opinions expressed in this report are subject to change without notice and may differ or be contrary to opinions expressed by other business areas or groups of UBS as a result of using different assumptions and criteria. Research will initiate, update and cease coverage solely at the discretion of UBS Investment Bank Research Management. The analysis contained herein is based on numerous assumptions. Different assumptions could result in materially different results. The analyst(s) responsible for the preparation of this report may interact with trading desk personnel, sales personnel and other constituencies for the purpose of gathering, synthesizing and interpreting market information. UBS is under no obligation to update or keep current the information contained herein. UBS relies on information barriers to control the flow of information contained in one or more areas within UBS, into other areas, units, groups or affiliates of UBS. The compensation of the analyst who prepared this report is determined exclusively by research management and senior management (not including investment banking). Analyst compensation is not based on investment banking revenues, however, compensation may relate to the revenues of UBS Investment Bank as a whole, of which investment banking, sales and trading are a part.

The securities described herein may not be eligible for sale in all jurisdictions or to certain categories of investors. Options, derivative products and futures are not suitable for all investors, and trading in these instruments is considered risky. Mortgage and asset-backed securities may involve a high degree of risk and may be highly volatile in response to fluctuations in interest rates and other market conditions. Past performance is not necessarily indicative of future results. Foreign currency rates of exchange may adversely affect the value, price or income of any security or related instrument mentioned in this report. For investment advice, trade execution or other enquiries, clients should contact their local sales representative. Neither UBS nor any of its affiliates, nor any of UBS' or any of its affiliates, directors, employees or agents accepts any liability for any loss or damage arising out of the use of all or any part of this report. For financial instruments admitted to trading on an EU regulated market: UBS AG, its affiliates or subsidiaries (excluding UBS Securities LLC and/or UBS Capital Markets LP) acts as a market maker or liquidity provider (in accordance with the interpretation of these terms in the UK) in the financial instruments of the issuer save that where the activity of liquidity provider is carried out in accordance with the definition given to it by the laws and regulations of any other EU jurisdictions, such information is separately disclosed in this research report. UBS and its affiliates and employees may have long or short positions, trade as principal and buy and sell in instruments or derivatives identified herein.

Any prices stated in this report are for information purposes only and do not represent valuations for individual securities or other instruments. There is no representation that any transaction can or could have been effected at those prices and any prices do not necessarily reflect UBS's internal books and records or theoretical model-based valuations and may be based on certain assumptions. Different assumptions, by UBS or any other source, may yield substantially different results.

United Kingdom and the rest of Europe: Except as otherwise specified herein, this material is communicated by UBS Limited, a subsidiary of UBS AG, to persons who are eligible counterparties or professional clients and is only available to such persons. The information contained herein does not apply to, and should not be relied upon by, retail clients. UBS Limited is authorised and regulated by the Financial Services Authority (FSA). UBS research complies with all the FSA requirements and laws concerning disclosures and these are indicated on the research where applicable. **France:** Prepared by UBS Limited and distributed by UBS Limited and UBS Securities France SA. UBS Securities France S.A. is regulated by the Autorité des Marchés Financiers (AMF). Where an analyst of UBS Securities France S.A. has contributed to this report, the report is also deemed to have been prepared by UBS Securities France S.A. **Germany:** Prepared by UBS Limited and distributed by UBS Limited and UBS Deutschland AG. UBS Deutschland AG is regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin). **Spain:** Prepared by UBS Limited and distributed by UBS Limited and UBS Securities España SV, SA. UBS Securities España SV, SA is regulated by the Comisión Nacional del Mercado de Valores (CNMV). **Turkey:** Prepared by UBS Menkul Degerler AS on behalf of and distributed by UBS Limited. **Russia:** Prepared and distributed by UBS Securities CJSC. **Switzerland:** Distributed by UBS AG to persons who are institutional investors only. **Italy:** Prepared by UBS Limited and distributed by UBS Limited and UBS Italia Sim S.p.A.. UBS Italia Sim S.p.A. is regulated by the Bank of Italy and by the Commissione Nazionale per le Società e la Borsa (CONSOB). Where an analyst of UBS Italia Sim S.p.A. has contributed to this report, the report is also deemed to have been prepared by UBS Italia Sim S.p.A.. **South Africa:** UBS South Africa (Pty) Limited (Registration No. 1995/011140/07) is a member of the JSE Limited, the South African Futures Exchange and the Bond Exchange of South Africa. UBS South Africa (Pty) Limited is an authorised Financial Services Provider. Details of its postal and physical address and a list of its directors are available on request or may be accessed at <http://www.ubs.co.za>. **United States:** Distributed to US persons by either UBS Securities LLC or by UBS Financial Services Inc., subsidiaries of UBS AG; or by a group, subsidiary or affiliate of UBS AG that is not registered as a US broker-dealer (a 'non-US affiliate'), to major US institutional investors only. UBS Securities LLC or UBS Financial Services Inc. accepts responsibility for the content of a report prepared by another non-US affiliate when distributed to US persons by UBS Securities LLC or UBS Financial Services Inc. All transactions by a US person in the securities mentioned in this report must be effected through UBS Securities LLC or UBS Financial Services Inc., and not through a non-US affiliate. **Canada:** Distributed by UBS Securities Canada Inc., a subsidiary of UBS AG and a member of the principal Canadian stock exchanges & CIPF. A statement of its financial condition and a list of its directors and senior officers will be provided upon request. **Hong Kong:** Distributed by UBS Securities Asia Limited. **Singapore:** Distributed by UBS Securities Pte. Ltd [mica (p) 039/11/2009 and Co. Reg. No.: 198500648C] or UBS AG, Singapore Branch. Please contact UBS Securities Pte Ltd, an exempt financial advisor under the Singapore Financial Advisers Act (Cap. 110); or UBS AG Singapore branch, an exempt financial adviser under the Singapore Financial Advisers Act (Cap. 110) and a wholesale bank licensed under the Singapore Banking Act (Cap. 19) regulated by the Monetary Authority of Singapore, in respect of any matters arising from, or in connection with, the analysis or report. The recipient of this report represent and warrant that they are accredited and institutional investors as defined in the Securities and Futures Act (Cap. 289). **Japan:** Distributed by UBS Securities Japan Ltd to institutional investors only. Where this report has been prepared by UBS Securities Japan Ltd, UBS Securities Japan Ltd is the author, publisher and distributor of the report. **Australia:** Distributed by UBS AG (Holder of Australian Financial Services License No. 231087) and UBS Securities Australia Ltd (Holder of Australian Financial Services License No. 231098) only to 'Wholesale' clients as defined by s761G of the Corporations Act 2001. **New Zealand:** Distributed by UBS New Zealand Ltd. An investment adviser and investment broker disclosure statement is available on request and free of charge by writing to PO Box 45, Auckland, NZ. **Dubai:** The research prepared and distributed by UBS AG Dubai Branch, is intended for Professional Clients only and is not for further distribution within the United Arab Emirates. **Korea:** Distributed in Korea by UBS Securities Pte. Ltd., Seoul Branch. This report may have been edited or contributed to from time to time by affiliates of UBS Securities Pte. Ltd., Seoul Branch. **Malaysia:** This material is authorized to be distributed in Malaysia by UBS Securities Malaysia Sdn. Bhd (253825-x). **India :** Prepared by UBS Securities India Private Ltd. 2/F,2 North Avenue, Maker Maxity, Bandra Kurla Complex, Bandra (East), Mumbai (India) 400051. Phone: +912261556000 SEBI Registration Numbers: NSE (Capital Market Segment): INB230951431 , NSE (F&O Segment) INF230951431, BSE (Capital Market Segment) INB010951437.

The disclosures contained in research reports produced by UBS Limited shall be governed by and construed in accordance with English law.

UBS specifically prohibits the redistribution of this material in whole or in part without the written permission of UBS and UBS accepts no liability whatsoever for the actions of third parties in this respect. Images may depict objects or elements which are protected by third party copyright, trademarks and other intellectual property rights. © UBS 2011. The key symbol and UBS are among the registered and unregistered trademarks of UBS. All rights reserved.

