UPDATE

October 19, 2023 08:34 AM GMT

Autos & Shared Mobility (Europe) | Europe

September Tyres Tracker: A green shoot from NAFTA RT demand

Global RT demand is +1% YoY, with European RT demand (-6% YoY) still a weak spot. NAFTA RT demand offers some hope at +13% YoY. Unusually, OE demand has worsened. Global truck RT demand remains weak. Raw material costs are clearly not collapsing, so tyre pricing is likely protected to a degree.

This data is compiled by Michelin but is not reflecting Michelin sales outcomes. Instead it uses "sell-in data published by local tiremaker associations, plus Michelin's own estimates of sales by tire manufacturers that do not belong to any association."

Global RT demand was +1% in September, with NAFTA hot and Europe the weak spot: Michelin monthly tyre volume growth data for September 2023 is mixed, with RT demand in Europe deteriorating to -6% YoY (vs -4% last month), having declined in YoY terms for 13 consecutive months now. Michelin comments that sell-in demand in Europe has been penalised by weak winter tyre sales, with inventory levels for other products returning to normal. September RT demand in NAFTA further improved and is now tracking at +13% YoY, which reflects easier comps and a resilient economic environment. China RT demand is +6% YoY, with demand back to 2021 levels now, according to Michelin.

OE demand has flipped negative: September data suggests that European OE demand is coming in at -4% YoY, with North America OE demand -10% YoY and China OE demand down 18% YoY. Michelin sees weaker OE trends as reflecting the "effects of the strike at North American automakers, which led to a significant slowdown in local demand". In addition, OE demand in Europe and China faces very high levels of comparison and European OEMs in particular are now seen holding high levels of inventory. It is worth noting that LV production estimates continue to rise, as we recently discussed here: Autos & Shared Mobility: Auto production — another China driven upgrade (16 Oct).

RT demand for trucks stays weak: According to Michelin, Global truck OE demand was flat YoY in September, with Europe +1%, North America flat -4% and South America -19%. Truck data remains weak on the replacement side, with Europe at -7% YoY, North America -15% and global RT demand -8% YoY. Weakness in truck RT demand is fairly well understood and reflects some payback after several years of strength on the back of strong e-commerce trends. Michelin comments that replacement truck demand is being dragged lower by a reduction in freight activity in Europe and continued de-stocking in North America.

Will tyre pricing stay stable in the coming quarters? As we discussed here, natural rubber prices have been running hot in recent weeks and have now risen to the top

MORGAN STANLEY & CO. INTERNATIONAL PLC+

Ross A MacDonald, CFA

Equity Analys

Ross.MacDonald@morganstanley.com +44 20 7425-0240

Shaqeal A Kirunda

Equity Analyst

Shaqeal.Kirunda@morganstanley.com +44 20 7425-0736

MORGAN STANLEY & CO. LLC

Adam Jonas, CFA

Equity Analyst

Adam.Jonas@morganstanley.com +1 212 761-1726

MORGAN STANLEY MUFG SECURITIES CO., LTD.+

Shinji Kakiuchi

Equity Analyst

Shinji.Kakiuchi@morganstanleymufg.com +81 3 6836-5416

MORGAN STANLEY ASIA LIMITED+

Tim Hsiao

Equity Analys

Tim.Hsiao@morganstanley.com +852 2848-1982



AUTOS & AUTO PARTS

Europe

Industry View In-Line

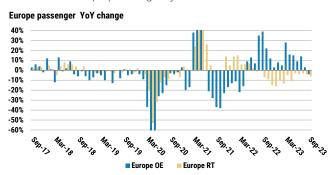
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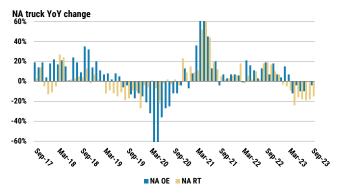
of the 12M range. The European Rubber Journal attributes this increase to a combination of heavy rainfall in rubber producing countries and some speculative buying from traders, who it sees as starting to position for a Chinese economy that "might be on the brink of recovery", citing comments from the Japan Stock Exchange (JPX). On top of this, we note that crude oil prices have risen in recent weeks, as have European butadiene prices. Although we do not expect Michelin to cut tyre prices in the coming quarters, we do not anticipate passenger car price hikes either. To this extent, a modestly rising raw material cost backdrop is manageable for the overall Michelin fundamentals. We think most investor anxiety within the tyre sector has been focused on budget tyres returning to shelves, volumes staying weak on sluggish consumer data and price cuts in response to sharply lower input costs. We see this lower input cost narrative as starting to diminish here. Although we accept this is only a small positive to the Michelin buy case, we do think it will start to dilute a big argument for the bears. Net net, Michelin is getting easier to own at a time when most auto stocks are getting harder to own. Clearly, a global volume recovery is taking some time – we look for more colour at the company's 3Q results on October 24th.

Exhibit1: Europe passenger tyres YoY volume



Source: Michelin. Note: Not day adjusted

Exhibit2: NAFTA Truck OE/RT demand:



Source: Michelin. Note: Not day adjusted.

September tyre market volume data

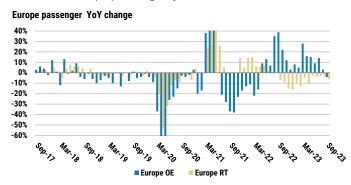
Exhibit3: Michelin tyre market data, volume growth YoY

| Michelin global tire marke | t volume cl | nange (not se | elling day a | djusted) | | | | | Michelin global tire m | arket volun | ne change | | | |
|-----------------------------|-------------------|---------------|--------------|----------|--------|--------|--------|--------|------------------------|-------------|------------|---------|---------|---------|
| yoy volume growth | YTD volume growth | | | | | | | | | | | | | |
| Passenger cars | | | | | | | | | Passenger cars | | | | | |
| Original equipment tires | Sep-23 | Aug-23 | Jul-23 | Jun-23 | May-23 | Apr-23 | Mar-23 | Feb-23 | Original equipment ti | YTD -23 | YTD -22 | YTD -21 | YTD -20 | YTD -19 |
| Europe | -4% | 3% | 14% | 9% | 15% | 16% | 28% | 5% | Europe | 11% | 1% | 5% | -30% | -5% |
| NAFTA | -10% | -8% | 14% | 5% | 16% | 5% | 2% | 8% | NAFTA | 9% | 11% | 7% | -27% | -3% |
| China | -18% | -8% | -5% | -5% | 4% | 76% | -8% | 4% | China | 2% | 9% | 5% | -10% | -13% |
| Worldwide | -10% | -5% | 4% | 1% | 12% | 23% | 4% | 3% | Worldwide | 6% | 7% | 8% | | |
| Replacement tires | Sep-23 | Aug-23 | Jul-23 | Jun-23 | May-23 | Apr-23 | Mar-23 | Feb-23 | Replacement tires | YTD -23 | YTD -22 | YTD -21 | YTD -20 | YTD -19 |
| Europe | -6% | -4% | -3% | -4% | -3% | -11% | -5% | -13% | Europe | -6% | 5% | 13% | -15% | -2% |
| NAFTA | 13% | 4% | 2% | 2% | -7% | -14% | -8% | -2% | NAFTA | -4% | -2% | 22% | -11% | 3% |
| China | 6% | 11% | 10% | 10% | 41% | 50% | 5% | 38% | China | 13% | -12% | 6% | -8% | 4% |
| Worldwide | 1% | -1% | 1% | 2% | 1% | -3% | -3% | -1% | Worldwide | -1% | 0% | 16% | | |
| Trucks | | | | | | | | | Trucks | | | | | |
| Original equipment tires | Sep-23 | Aug-23 | Jul-23 | Jun-23 | May-23 | Apr-23 | Mar-23 | Feb-23 | Original equipment ti | YTD -23 | YTD -22 | YTD -21 | YTD -20 | YTD -19 |
| Europe | 1% | 7% | 12% | 9% | 4% | 14% | 16% | 7% | Europe | 8% | 5% | 34% | -25% | -7% |
| NAFTA | -4% | 0% | -10% | -10% | -4% | -12% | 7% | 15% | NAFTA | -2% | 10% | 32% | -34% | 5% |
| Brazil | -19% | -28% | -28% | -30% | -18% | -27% | -5% | -21% | Brazil | -23% | 13% | 47% | -28% | 29% |
| Worldwide | 0% | 3% | -1% | -2% | 3% | 1% | 7% | 10% | Worldwide | 2% | -21% | 8% | | |
| Replacement tires | Sep-23 | Aug-23 | Jul-23 | Jun-23 | May-23 | Apr-23 | Mar-23 | Feb-23 | Replacement tires | YTD -23 | YTD -22 | YTD -21 | YTD -20 | YTD -19 |
| Europe | -7% | -1% | 3% | -12% | -10% | -13% | -15% | -13% | Europe | -9% | 9% | 17% | -5% | 2% |
| NAFTA | -15% | -18% | -19% | -18% | -16% | -24% | -9% | -5% | NAFTA | -17% | 12% | 26% | -3% | -12% |
| Brazil | -2% | -8% | 0% | 7% | 12% | 5% | 0% | 0% | Brazil | 4% | 4% | 27% | -14% | -2% |
| Worldwide | -8% | -11% | -4% | -5% | -5% | -8% | -6% | 18% | Worldwide | -7% | 0% | 13% | | |
| Passenger cars - total (as | OF/7F | OF/DT list | | | | | | | Passenger cars - total | / | E/ZE OE/DI | an list | | |
| Passenger cars - total (ass | Sep-23 | Aug-23 | Jul-23 | Jun-23 | Mav-23 | Apr-23 | Mar-23 | Feb-23 | Passenger cars - total | YTD -23 | YTD -22 | YTD -21 | YTD -20 | YTD -19 |
| Europe | -6% | -2% | 1% | -1% | 2% | -4% | 3% | -9% | Europe | -2% | 4% | 11% | -19% | -3% |
| NAFTA | 7% | 1% | 5% | 3% | -1% | -9% | -6% | 1% | NAFTA | -1% | 1% | 18% | -15% | 2% |
| China | 0% | 6% | 6% | 6% | 32% | 57% | 2% | 30% | China | 10% | -7% | 6% | -9% | 0% |
| Trucks - total (assume 25/ | | | 070 | 070 | 02.70 | 01 70 | 270 | 0070 | Trucks - total (assume | | . , . | 070 | 0 70 | 070 |
| (4304110 _0) | Sep-23 | Aug-23 | Jul-23 | Jun-23 | May-23 | Apr-23 | Mar-23 | Feb-23 | Total (accum | YTD -23 | YTD -22 | YTD -21 | YTD -20 | YTD -19 |
| Europe | -5% | 1% | 5% | -7% | -7% | -6% | -7% | -8% | Europe | -5% | 8% | 21% | -10% | 0% |
| NAFTA | -12% | -14% | -17% | -16% | -13% | -21% | -5% | 0% | NAFTA | -13% | 12% | 28% | -11% | -8% |
| Brazil | -6% | -13% | -7% | -2% | 5% | -3% | -1% | -5% | Brazil | -3% | 6% | 32% | -18% | 6% |

Source: Michelin, Morgan Stanley Research. Note: We assume 25%/75% splits for OE/RT to estimate total growth rates for both passenger tyres and truck tyres. YoY = Year on year

Passenger car volumes

Exhibit4: Europe passenger tyres YoY volume



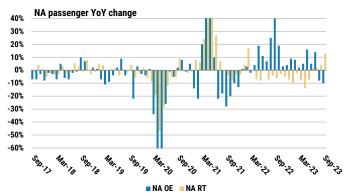
Source: Michelin, Morgan Stanley Research

Exhibit6: China passenger tyres YoY volume



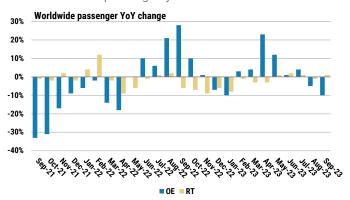
Source: Michelin, Morgan Stanley Research

Exhibit5: NA passenger tyres YoY volume



Source: Michelin, Morgan Stanley Research

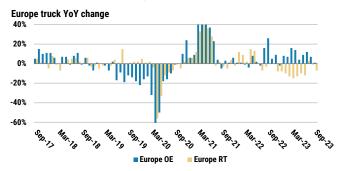
Exhibit 7: Global passenger tyres YoY volume



Source: Michelin, Morgan Stanley Research

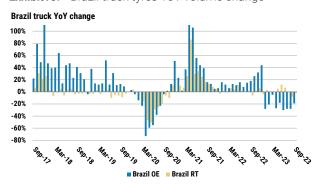
Truck tyre volumes

Exhibit8: Europe truck tyres YoY volume change



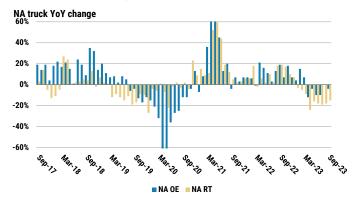
Source: Michelin, Morgan Stanley Research

Exhibit10: Brazil truck tyres YoY volume change



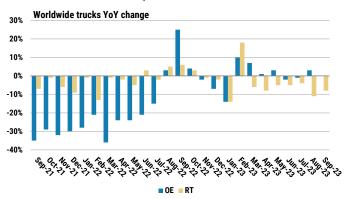
Source: Michelin, Morgan Stanley Research

Exhibit9: NA truck tyres YoY volume change



Source: Michelin, Morgan Stanley Research

Exhibit 11: Global trucks tyre YoY volume



Source: Michelin, Morgan Stanley Research

Tyre raw materials – a welcome rebound?

Key raw materials are natural and synthetic rubber, as well as oil-based fillers. Broadly, raw materials in tyres comprise natural rubber (~25%), synthetic rubber (~25%) which is derived from oil, fillers such as carbon black or silica (~30% also oil-based) and binding materials such as steel and fabric (the remainder). Passenger car tyres generally contain more synthetic rubber, which is generally more durable and has lower rolling resistance; truck tyres (as well as aviation tyres and large construction equipment tyres) contain more natural rubber for its shear resistance, load-bearing capabilities and resistance to cuts.

Exhibit 12: Passenger car tyres generally contain more synthetic rubber...

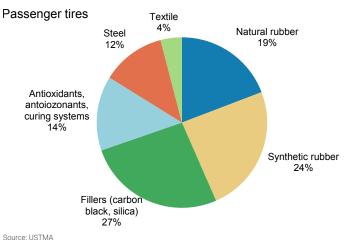
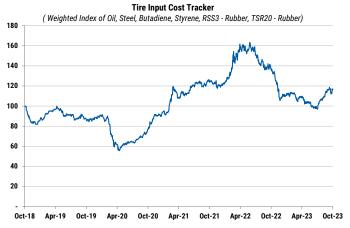
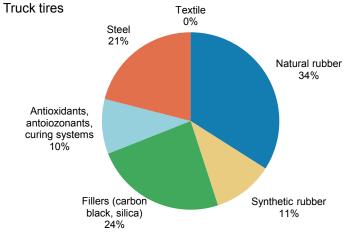


Exhibit 14: Tyre input price index (last 5 years, €)



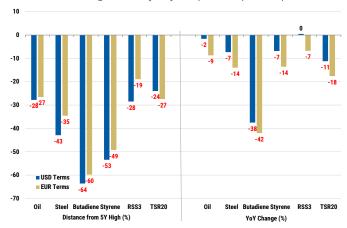
Source: Refinitiv, Morgan Stanley Research

Exhibit 13: ...while truck tyres have more natural rubber and steel



Source: USTMA

Exhibit 15: Changes to major tyre input component prices



Source: Refinitiv, Morgan Stanley Research

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Morgan Stanley global tyres comps

Exhibit 16: Global tyres valuation sheet

| | | Price at | MS | MS | Market | Сар | MS E | PS | Consens | us EPS | Divi Yield | MS P | / E | Consensu | us P / E | EV / EE | BITDA | EV / E | BIT | EV / | Sales | P/I | В |
|-------------------------|----------|------------|--------------|--------------|----------|-------|------------|------------|---------|---------|------------|-------|-------|----------|----------|---------|--------|--------|--------|-------|-------|-------|-------|
| Company | Currency | 17/10/2023 | Price Target | Rating | LC | US\$ | 2023e | 2024e | 2023e | 2024e | 2023e | 2023e | 2024e | 2023e | 2024e | 2023e | 2024e | 2023e | 2024e | 2023e | 2024e | 2023e | 2024e |
| _ | | | | | | | | | | | | | | | | | | | | | | | |
| Europe | | | | | | | | | | | | | | | | | | | | | | | |
| Michelin | EUR | 29.18 | 35.00 | Overweight | 20.93 | 21.99 | 3.15 e | 3.26 e | 3.17 | 3.28 | 4.3% | 9.3x | 8.9x | | 8.9x | 4.2 e | 3.9 e | 6.6 e | 6.1 e | 0.8 e | | 1.1 e | 1.1 e |
| Pirelli & C. SpA | EUR | 4.49 | 5.50 | Overweight | 4.49 | 4.72 | 0.55 e | 0.61 e | 0.53 | 0.58 | 4.9% | 8.2x | 7.4x | | 7.7x | 4.8 e | 4.9 e | 7.4 e | 7.0 e | 1.1 e | | 0.8 e | 0.8 e |
| Europe Weighted Average | | | | | | | | | | | 4.4% | 9.1x | 8.7x | 9.1x | 8.7x | 4.3x | 4.0x | 6.7x | 6.2x | 0.9x | 0.8x | 1.1x | 1.0x |
| | | | | | | | | | | | | | | | | | | | | | | | |
| Japan | | | | | | | | | | | | | | | | | | | | | | | |
| Bridgestone | JPY | 5,824.00 | 5,400.00 | Equal-Weight | 3,985.65 | 26.65 | 521.76 e | 538.83 e | 532.99 | 567.06 | 3.0% | 11.2x | 10.8x | 10.9x | 10.3x | 4.7 e | 4.2 e | 7.3 e | 6.6 e | 0.9 e | | | 1.2 e |
| Sumitomo Rubber | JPY | 1,539.50 | 1,300.00 | Underweight | 404.90 | 2.71 | 104.94 e | 166.34 e | 104.86 | 132.38 | 2.3% | 14.7x | 9.3x | | 11.6x | 6.4 e | 5.4 e | 14.2 e | 10.6 e | 0.6 e | | 0.7 e | 0.7 e |
| Yokohama Rubber | JPY | 2,884.50 | 3,400.00 | Overweight | 463.53 | 3.10 | 402.62 e | 423.15 e | 394.03 | 425.54 | 2.3% | 7.2x | 6.8x | 7.3x | 6.8x | 6.5 e | 5.4 e | 10.2 e | 8.0 e | 0.9 e | 0.8 e | 0.7 e | 0.6 e |
| Toyo Tire & Rubber | JPY | 2,253.50 | 2,200.00 | Equal-Weight | 346.93 | 2.32 | 261.77 e | 283.59 e | 375.61 | 320.30 | 3.6% | 8.6x | 7.9x | 6.0x | 7.0x | 4.6 e | 4.3 e | 6.7 e | 6.1 e | 0.8 e | 0.7 e | 1.0 e | 0.9 e |
| Japan Weighted Average | | | | | | | | | | | 2.9% | 10.9x | 10.1x | 10.6x | 9.8x | 4.9x | 4.4x | 8.1x | 7.0x | 0.9x | 0.8x | 1.2x | 1.1x |
| | | | | | | | | | | | | | | | | | | | | | | | |
| China | | | | | | | | | | | | | | | | | | | | | | | |
| Cheng Shin Rubber | TWD | 43.20 | 50.00 | Overweight | 140.03 | 4.35 | 2.24 e | 2.66 e | 2.33 | 2.59 | 3.2% | 19.3x | 16.3x | | 16.7x | 7.3 e | 6.5 e | 14.9 e | 11.4 e | 1.5 e | | 1.6 e | 1.6 e |
| China Weighted Average | | | | | | | | | | | 3.2% | 19.3x | 16.3x | 18.6x | 16.7x | 7.3x | 6.5x | 14.9x | 11.4x | 1.5x | 1.3x | 1.6x | 1.6x |
| Korea | | | | | | | | | | | | | | | | | | | | | | | |
| Hankook Tire | KRW | 36,250,00 | 33.000.00 | Underweight | 4.490.47 | 3.32 | 4.071.20 e | 4,136.37 e | 5372.65 | 6294.08 | 1.9% | 8.9x | 8.8x | 6.7x | 5.8x | 2.9 e | 2.5 e | 5.1 e | 4.7 e | 0.5 e | 0.4 e | 0.5 e | 0.5 e |
| Korea Weighted Average | | | | | , | | | | | | 1.9% | 8.9x | 8.8x | 6.7x | 5.8x | 2.9x | 2.5x | 5.1x | 4.7x | 0.5x | 0.4x | 0.5x | 0.5x |
| | | | | | | | | | | | | | | | | | | | | | | | |
| India | | | | | | | | | | | | | | | | | | | | | | | |
| Apollo Tyres | INR | 389.90 | 398.00 | Equal-Weight | 247.63 | 2.97 | 17.04 | 24.38 e | 15.43 | 26.68 | 0.0% | 22.9x | 16.0x | 25.3x | 14.6x | 7.7 | 7.0 e | 13.5 | 11.0 e | 1.0 | 1.1 e | 1.6 | 1.8 e |
| Balkrishna Industries | INR | 2,616.50 | 1,928.00 | Underweight | 505.81 | 6.08 | 55.80 | 72.07 e | 59.16 | 75.20 | 1.1% | 46.9x | 36.3x | 44.2x | 34.8x | 20.3 | 22.3 e | 28.3 | 30.1 e | 4.0 | 5.4 e | 5.0 | 5.9 e |
| India Weighted Average | | • | • | | • | | | | | | 0.7% | 39.0x | 29.6x | 38.0x | 28.2x | 16.2x | 17.3x | 23.4x | 23.8x | 3.0x | 4.0x | 3.9x | 4.5x |
| Global Weighted Average | | | | | | | | | | | 3.1% | 13.9x | 12.2x | 13.5x | 11.8x | 6.1x | 5.8x | 9.6x | 8.8x | 1.1x | 1.2x | 1.4x | 1.5x |
| Global Weighted Average | | | | | | | | | | | 3.1% | 13.98 | 12.2X | 13.5X | 11.8X | 6.1X | 5.8X | 9.68 | 8.8X | 1.1X | 1.2X | 1.4X | 1.5X |

Source: Morgan Stanley Research estimates, Thomson Reuters for consensus.

Valuation Methodology and Risks

Michelin (MICP.PA)

We value Michelin at €35. This is based on an average of (i) ~10.5x 24E P/E based on a 10Y PE rel vs MSCI Europe, and (ii) A DCF valuation of €35, which is based on a WACC of 9% and includes a terminal growth assumption of 1.5%

Risks to Upside

Price / mix could remain very strong

Volumes may be more resilient than we forecast.

The recovery in FCF in 2023 opens the door for a greater than expected dividend hike

Risks to Downside

Further raw material/cost inflation could be more difficult to pass on to consumers.

Consumer demand could weaken further.

Sharply lower raw materials costs could reduce pricing.

Consumers may trade down if inflation lingers.



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Global Stock Ratings Distribution

(as of September 30, 2023)

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| | Coverag | e Universe | Inves | stment Banking Clients | Other Material Investment Services Clients (MISC) | | | |
|--------------------------|---------|------------|-------|------------------------|--|-------|--------------------------|--|
| Stock Rating Category | Count | % of Total | Count | % of Total IBC | % of Rating Category | Count | % of Total Other MISC | |
| Overweight/Buy | 1350 | 37% | 281 | 43% | 21% | 608 | 39% | |
| Equal-weight/Hold | 1673 | 46% | 303 | 46% | 18% | 709 | 46% | |
| Not-Rated/Hold | 3 | 0% | 0 | 0% | 0% | 1 | 0% | |
| Underweight/Sell | 608 | 17% | 68 | 10% | 11% | 225 | 15% | |
| Total | 3,634 | | 652 | | | 1543 | | |

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

Analyst Stock Ratings

Overweight (O). The stock's total return is expected to exceed the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Equal-weight (E). The stock's total return is expected to be in line with the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Not-Rated (NR). Currently the analyst does not have adequate conviction about the stock's total return relative to the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Underweight (U). The stock's total return is expected to be below the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

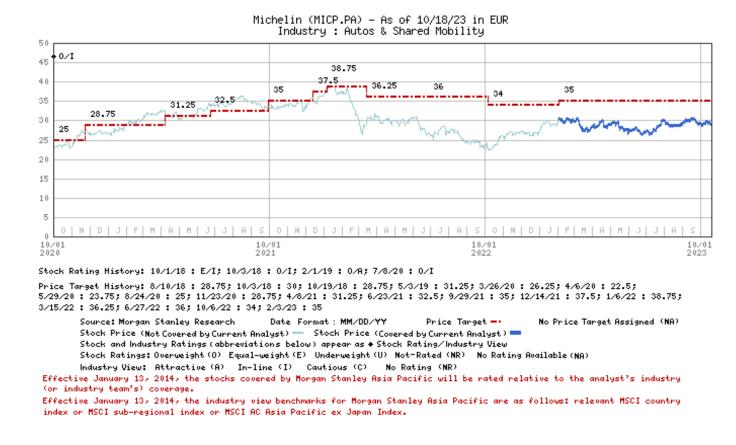
Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

Analyst Industry Views

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below. Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below. Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI Ac Asia Pacific ex Japan Index.

Stock Price, Price Target and Rating History (See Rating Definitions)



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INDUSTRY COVERAGE: Autos & Shared Mobility

| COMPANY (TICKER) | RATING (AS OF) | PRICE* (10/18/2023) |
|-------------------------------------|----------------|---------------------|
| Pete-Veikko Kujala | | |
| Aramis Autos (ARAMI.PA) | E (08/04/2023) | €3.69 |
| Ross A MacDonald, CFA | | |
| Autoliv (ALV.N) | E (09/24/2021) | US\$93.10 |
| BMW (BMWG.DE) | E (04/26/2023) | €97.91 |
| Mercedes-Benz Group AG (MBGn.DE) | E (12/14/2021) | €64.18 |
| Michelin (MICP.PA) | O (10/03/2018) | €28.77 |
| Pirelli & C SpA (PIRC.MI) | 0 (02/03/2023) | €4.46 |
| Porsche AG (P911_p.DE) | E (11/08/2022) | €91.56 |
| Renault (RENA.PA) | O (05/04/2023) | €36.07 |
| Stellantis (STLAM.MI) | O (02/04/2021) | €18.77 |
| Stellantis (STLA.N) | O (03/10/2021) | US\$19.71 |
| Volkswagen (VOWG_p.DE) | E (12/07/2022) | €107.62 |
| Shaqeal A Kirunda | | |
| Daimler Truck Holding AG (DTGGe.DE) | 0 (01/28/2022) | €31.02 |
| Iveco Group NV (IVG.MI) | E (01/05/2023) | €8.53 |
| Traton SE (8TRA.DE) | E (09/29/2022) | €19.24 |
| Volvo (VOLVb.ST) | E (04/25/2023) | SKr 229.45 |

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^{*} Historical prices are not split adjusted.