

Can the **world's** **largest carmaker** handle the ESG pressure?



Valuation Master Class

CASE  STUDY
VALUATION MASTER CLASS
by
A. Stoltz INVESTMENT
RESEARCH



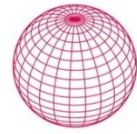
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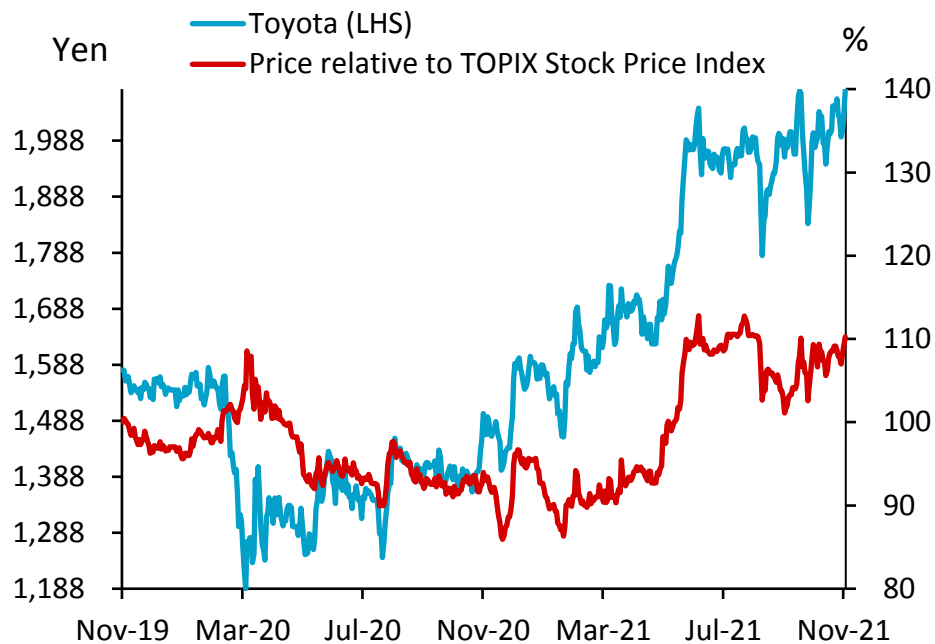


Ask
Ajarn
Andrew

Focus on hybrids; the world is not ready for full EV yet



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3 things to know about this company

- ★ EV skepticism could become costly in woke environment
- ★ Demand rebound makes up for lost production
- ★ Ongoing share repurchase program keeps returns alive

Key statistics

Analyst consensus (26)

JPY2,292

(Upside 7.1%)

HOLD

PE ratio

13.1x

Dividend yield

2.3%



Sales

Story

FVMR

Value

WCB

Risks

Automotive 88%

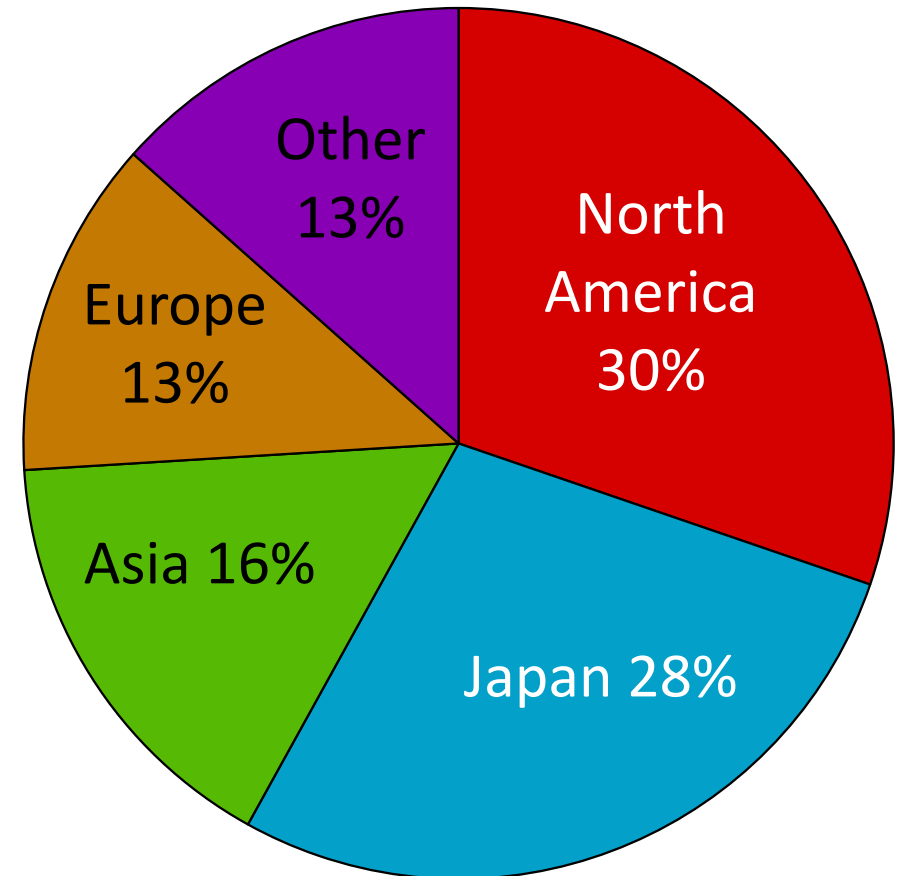


Financial services 8%

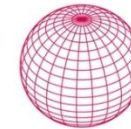


Other 4%

Breakdown by region



1 EV skepticism could become costly in woke environment



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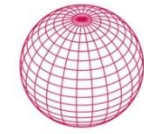
- ★ Toyota's president is well known for his critical attitude towards electrification of cars
 - Toyota has been the long-term leader in hybrids, but is way behind in full EVs
- ★ In 2020, the Japanese gov't announced the intention to ban gasoline-powered cars by 2030
- ★ Akio Toyoda responded that large parts of the world are not ready for EV yet
 - “When politicians are out there saying, ‘Let’s get rid of all cars using gasoline,’ do they understand this?”



Akio Toyoda

President since 2009

Falling behind competitors in battery development



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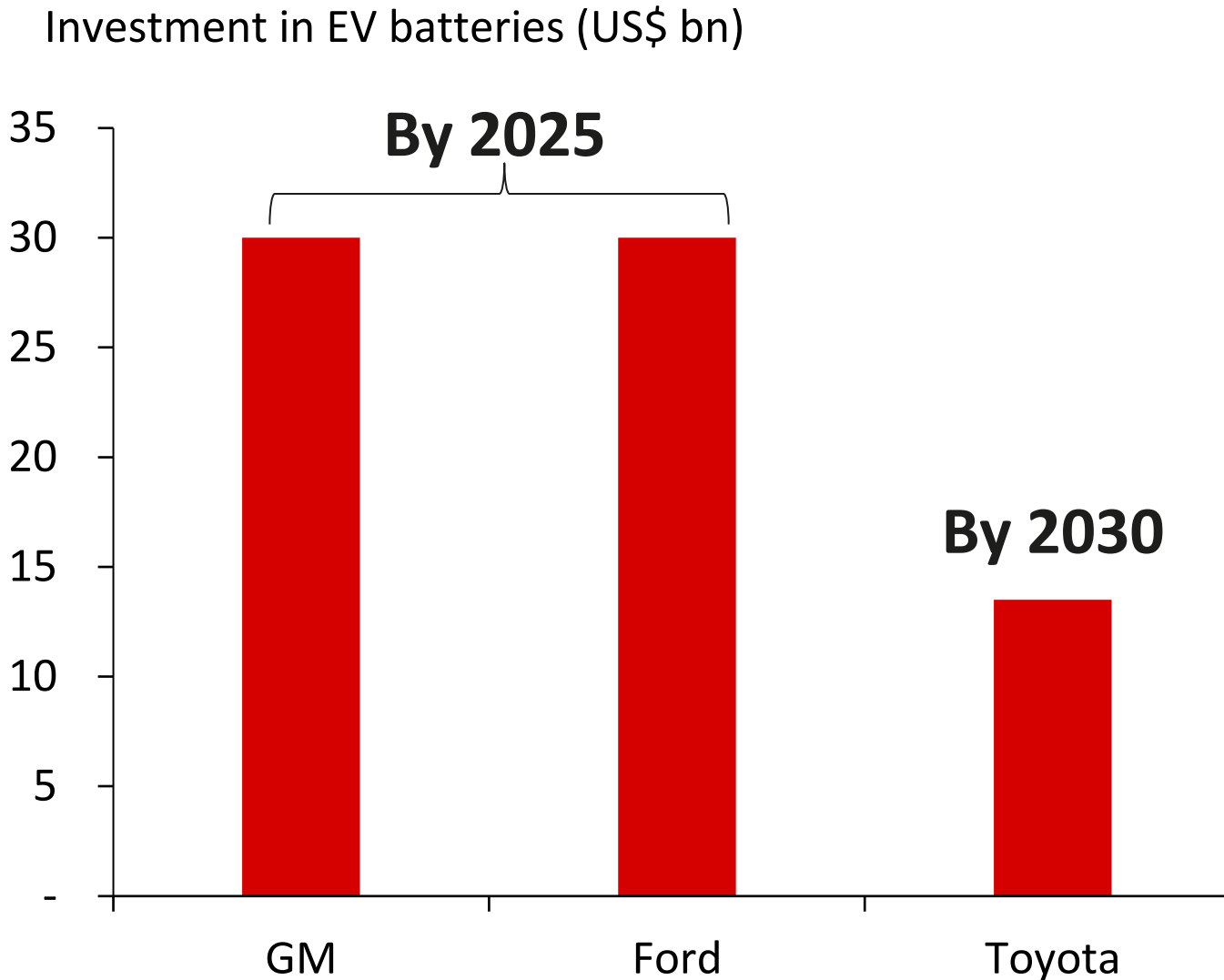
Story

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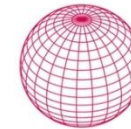
Value

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Risks



- ★ Toyota has announced to allocate US\$13.5bn by 2030 to the development of EV batteries
- ★ This amount is much lower than its competitors who are investing more than double in half the time



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Toyota bet wrong on EVs, so now it's lobbying to slow the transition

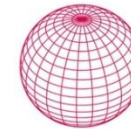
How Toyota sneakily spreads anti-EV propaganda in Japan

The Anti-Tesla: Why Toyota Remains Hung Up On Hydrogen

Toyota Forms 'Team Japan' To Help Keep Combustion Engine Alive

- ★ The company continues to bet on hybrid models rather than full electric cars
- ★ It argues that there is no difference in environmental benefits
 - The manufacturing of batteries still causes too much pollution
 - Most of energy cannot be supplied by renewable sources

2 Demand rebound makes up for lost production



Sales

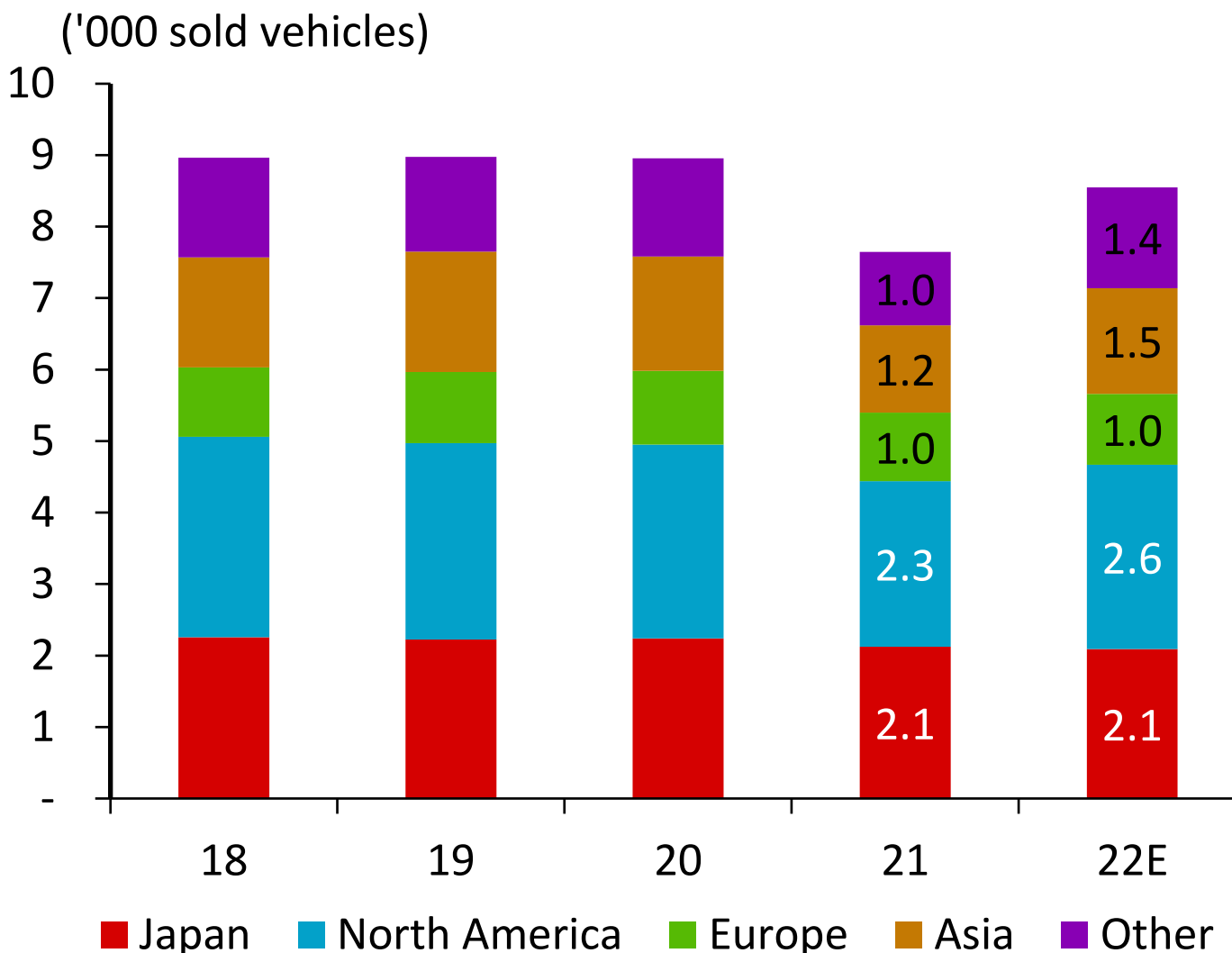
Story

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Risks

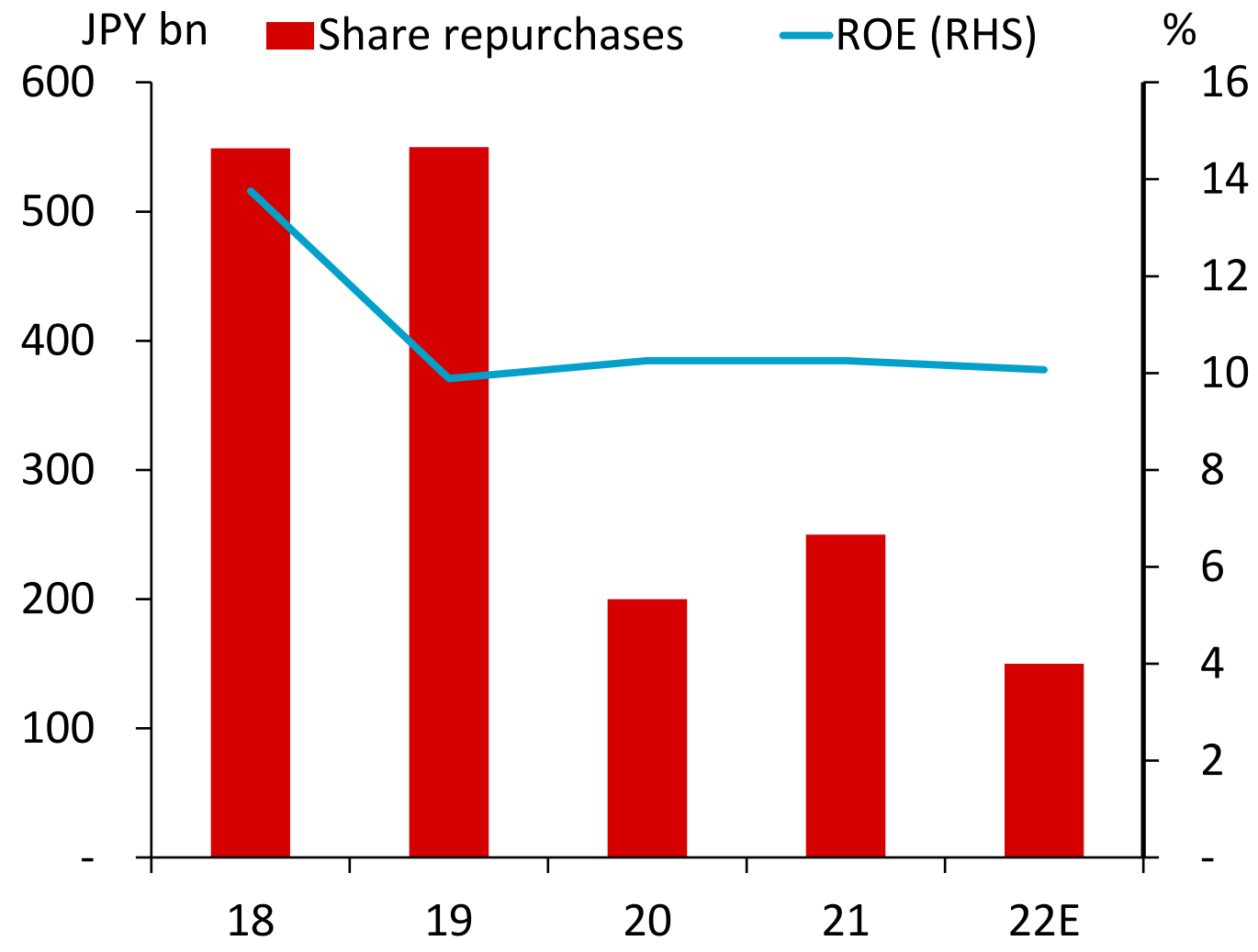


- ★ Strong demand from the US and Asia brings car sales almost back to normal by March 2022
 - All production plants have returned to full capacity
- ★ Management forecast the company should return to 10m vehicles by the end of 2023
 - The target might be a bit ambitious

3 Ongoing share repurchase program keeps return alive



- Sales
- Story
- FVMR
- Value
- WCB
- Risks



- ★ In 1997, Toyota implemented its flexible share repurchase program
- ★ Despite the pandemic, it stuck to its strategy
 - The company announced that by March 2022, it will buy back shares worth JPY150bn (\$1.3bn)
- ★ The repurchase has helped to keep return on equity above its target of 10%

Does it matter whether the company pays dividends or uses share repurchases?

- In theory, the effect on total shareholder's wealth is the same
- In practice, they are a few advantages:
 - Repurchases are more flexible and not a long-term commitment
 - Capital gains tax is generally lower than taxes on dividends
 - With repurchases, companies can signal that they perceive the stock price to be too cheap
 - With dividends everyone must receive the cash, but with buybacks, only those who want to sell will receive cash



Ask
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Andrew



<https://valuationmasterclass.com/everything-about-share-buybacks/>



What Is Going to Happen with Inflation?



What Is Going to Happen with Inflation?

By Valuation Master Class Student

Many forces at work impact inflation. There are current trends that cause both inflationary and deflationary measures. Whether we'll see inflation or deflation in the future depends on which of these forces dominate.

[Read More](#)

HOW TO VALUE A STARTUP

ANDREW STOTZ



How to Value a Startup

By Andrew Stotz

This story started when Dan, a podcast listener, replied to my recent weekly email with this question, "How do you value a startup, especially if there is no revenue?"

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How to Fight Back When Your Dreams Are Crushed

By Andrew Stotz

The trouble you face is not your fault, and I'm gonna show you how you can fight back. I challenge you to recommit to your dreams today!

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What Does It Mean to Be Financially World Class?



What Does It Mean to Be Financially World Class?

Liabilities To Assets Ratio



What Is Liabilities To Assets Ratio?

Growth Year Over Year



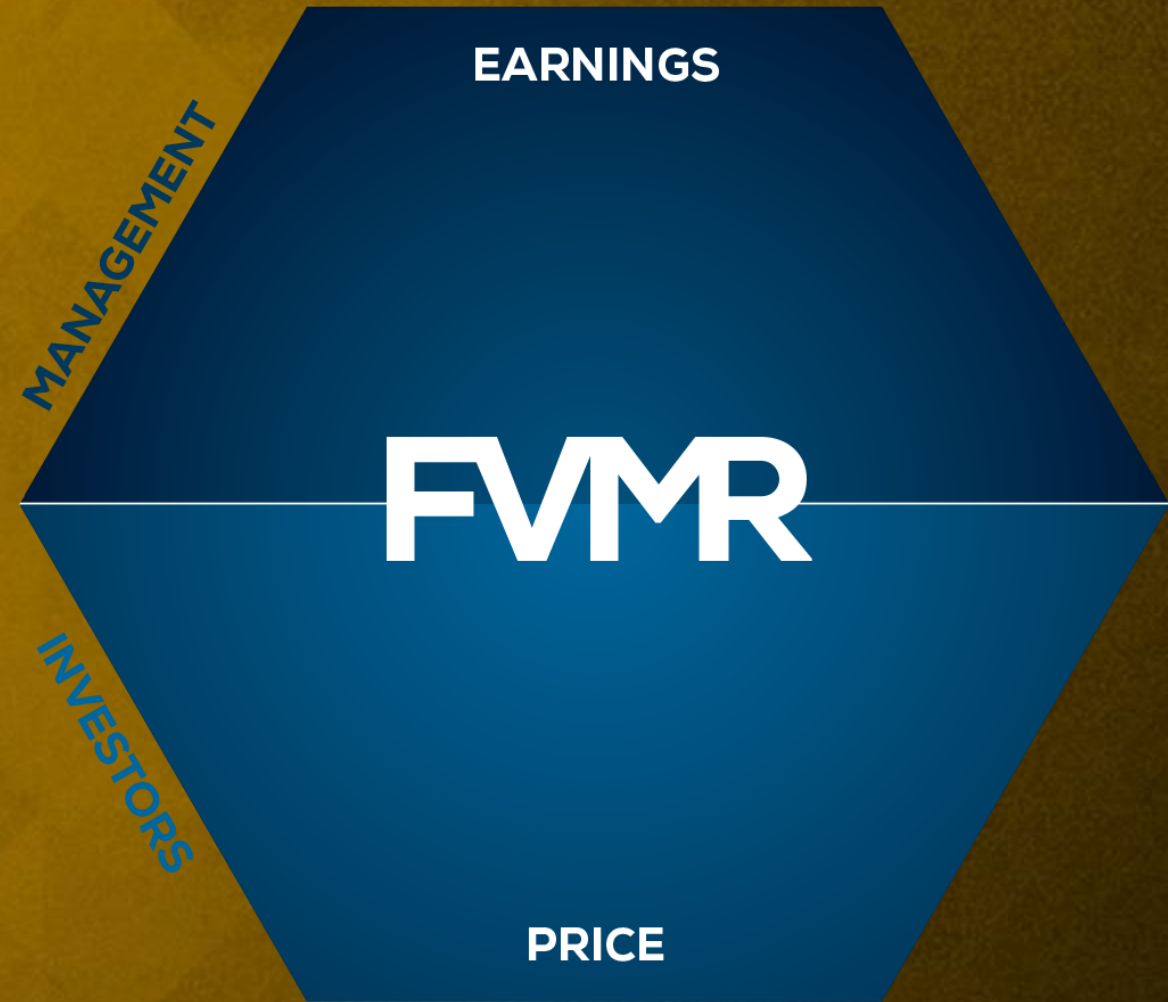
What Is Growth Year Over Year?

To download today's slide deck, find it in the Blog section!



FVMR Scorecard

- ★ Measures a stock's attractiveness relative to all other companies
- ★ Attractiveness is based on four elements
 - Fundamentals, Valuation, Momentum, and Risk
- ★ Scale from 1 (Best) to 10 (Worst)



Positive momentum could drive stock price further



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Risks

Worst Neutral Best

Rank relative to all other companies*



Fundamentals



Valuation



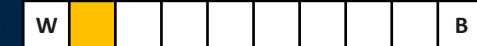
(%)	Mar-16	Mar-17	Mar-18	Mar-19	PTM**
Operating profit margin	9.8	6.9	7.5	7.4	9.0
Recurring net margin	8.4	6.8	8.4	6.9	9.7
Asset turnover	59.7	57.4	59.3	59.1	52.0
Return on assets	5.0	3.9	5.0	4.1	5.0
Recurring return on equity	14.0	10.6	13.3	10.7	13.2

(x)	Mar-16	Mar-17	Mar-18	Mar-19	PTM**
Price-to-sales	0.7	0.7	0.7	0.6	0.9
Price-to-earnings	7.9	9.9	8.3	9.0	9.4
Price-to-book	1.0	1.0	1.0	0.9	1.2
PE-to-EPS growth (PEG)	0.6	nm	0.2	nm	0.1
EV/EBIT	10.3	14.4	13.0	13.1	13.6

Momentum



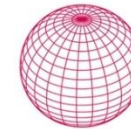
Risk



(%)	Mar-16	Mar-17	Mar-18	Mar-19	PTM**
Revenue growth	4.3	(2.8)	6.5	2.9	14.2
Recurring EPS growth	13.2	(19.0)	35.2	(13.0)	76.0
Operating profit margin chg. (bps)	63	(296)	62	(10)	353
	6mth	3mth	1mth	3wk	1wk
Price change	21.8	0.7	1.4	0.1	5.5

(x)	Mar-16	Mar-17	Mar-18	Mar-19	PTM**
Current ratio	1.1	1.0	1.0	1.0	1.1
Net debt-to-equity (%)	82.1	80.1	77.0	78.3	68.8
Times-interest-earned	78.8	64.5	79.7	79.4	nm
	5yr	3yr	1yr	6mth	3mth
Beta	1.0	0.9	1.1	1.1	1.1

Note: Benchmarking against 2,370 non-financial companies in Japan.



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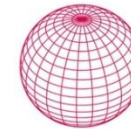
Momentum

W

B

(%)	Mar-16	Mar-17	Mar-18	Mar-19	PTM**
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Consensus remains optimistic regarding carmaker recovery



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Analyst consensus valuation

Recommendation	Aug-21	Sep-21	Oct-21	Current
Strong buy	4	4	4	5
Buy	12	12	13	14
Hold	7	7	7	7
Sell	-	-	-	-
Strong sell	-	-	-	-
Average score	2.1	2.1	2.1	2.1

Price target	Aug-21	Sep-21	Oct-21	Current
Median	2,140	2,170	2,140	2,225
Mean	2,209	2,213	2,223	2,292

#26
analysts



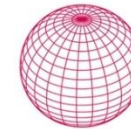
Upside: 7.1%

Analyst consensus 3-year forecast

(%)	18	19	20	21E	22E	23E
Revenue growth	2	(1.2)	(8.9)	13.8	9.2	4.4
Gross margin	18.0	18.0	17.8	18.4	18.4	19.0
EBIT margin	7.5	8.6	9.4	na	na	na
Net margin	6.2	6.8	8.3	8.8	9.0	9.2

- ★ Analyst consensus does not see much further upside
 - The stock price has shown strong momentum recently
- ★ They expect a strong recovery in global car sales

Profit & loss statement



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Risks

(YE Mar, Yen bn)	2020A	2021A	2022E	2023E
Revenue	29,867	27,215	30,752	32,598
Cost of goods & services	(24,485)	(22,382)	(24,910)	(26,404)
Gross profit	5,381	4,832	5,843	6,194
SG&A	(2,982)	(2,635)	(3,075)	(3,260)
Other operating (exp)/inc	0	(0)	-	-
EBIT	2,399	2,198	2,768	2,934
Interest expense (net)	78	63	135	106
Other non-operating inc/(exp)	100	305	-	-
Earnings before taxes (EBT)	2,577	2,566	2,902	3,040
Income tax	(682)	(650)	(784)	(821)
Earnings after taxes (EAT)	1,895	1,916	2,119	2,219
Equity income/Minority interest	235	314	325	329
Earnings from cont. operations	2,131	2,230	2,443	2,549
Forex/Exceptionals before tax	(95)	15	-	-
Net profit	2,036	2,245	2,443	2,549

- ★ Toyota has shown a strong 1H22, with revenue aiming to hit JPY30trn by the end of the reporting period
- ★ We expect that the company benefits further from post-pandemic recovery

Balance sheet - assets



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Risks

(YE Mar. Yen bn)	2020A	2021A	2022E	2023E
Cash & short-term investments	6,242	9,316	7,688	8,149
Accounts receivable	9,270	9,715	9,397	9,960
Inventories	2,534	2,888	2,975	3,154
Other current assets	917	858	923	978
Total current assets	18,963	22,777	20,983	22,242
Long-term investments	4,298	4,161	4,535	4,943
Net fixed assets	10,871	11,801	12,854	13,194
Intangible assets	1,000	1,109	1,144	1,183
Goodwill	-	-	-	-
Other long-term assets	18,840	22,420	22,644	22,870
Total assets	53,972	62,267	62,160	64,432

- ★ The company has a solid cash position, holding around 12.5% of its assets in cash
- ★ Net fixed assets grow in line with revenue
 - Expansion of its existing production plants
 - Investment in battery development

Balance sheet - liabilities



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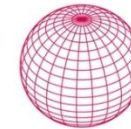
Risks

Balance sheet - Liabilities and equity

(YE Mar, Yen bn)	2020A	2021A	2022E	2023E
Overdrafts & short-term loans	9,907	12,212	9,519	9,176
Accounts payable	4,755	5,443	5,189	5,501
Other current liabilities	3,481	3,805	4,305	4,564
Total current liabilities	18,142	21,460	19,013	19,241
Long-term debt	11,434	13,448	14,135	14,418
Other long-term liabilities	3,057	3,071	3,101	3,132
Total liabilities	32,633	37,979	36,250	36,791
Minority interest	720	884	934	1,012
Paid-up capital - Common shares	886	894	894	894
Paid-up capital - Preferred	-	-	-	-
Retained earnings	22,234	24,104	25,830	27,630
Revaluation/Forex/Others	(2,502)	(1,594)	(1,748)	(1,896)
Total equity	20,619	23,405	24,976	26,629
Total liab & shareholders' equity	53,972	62,267	62,160	64,432

- ★ The item “Other” contains the treasury stock
 - It is deducted from equity when the company buys back its own shares
- ★ For 22E, the company set the buyback program to JPY 150bn
- ★ We forecast buybacks to continue in the future as well

Cash flow statement



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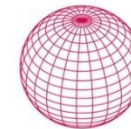
Value

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Risks

(YE Mar, Yen bn)	2020A	2021A	2022E	2023E
Net income	2,036	2,245	2,443	2,548
Depreciation & amortization	1,595	1,644	1,955	2,140
Calculated chg in net working	(62)	274	412	(228)
Other non-cash items	(1,170)	(1,436)	(325)	(329)
Operating cash flow	2,398	2,727	4,486	4,131
Capital expenditures	(2,307)	(2,356)	(3,043)	(2,518)
(Inc)/dec in other investments	183	(2,328)	(224)	(226)
Investing cash flow	(2,125)	(4,684)	(3,267)	(2,745)
Increase/(dec) in debt	1,513	3,201	(2,006)	(60)
Dividend paid	(619)	(626)	(717)	(748)
Change in equity	(476)	200	(154)	(148)
Others	(55)	(37)	31	31
Financing cash flow	363	2,739	(2,847)	(925)
Net inc/(dec) in cash	637	782	(1,628)	461
Beginning cash	5,828	6,242	9,316	7,688
Adjustment for historic data	(223)	2,292	-	-
Ending cash	6,242	9,316	7,688	8,149

- ★ Operating cash flows were not able to cover investing activities in 2020 and 2021
- ★ That should improve in 2022
- ★ The company pays out dividends on a consistent basis
 - Slowly growing over time
 - Dividend payout ratio is almost constant around 30%



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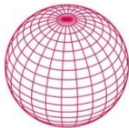
Value

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Risks

(YE Mar)	2020A	2021A	2022E	2023E
General growth (YoY, %)				
Revenue	(1.2)	(8.9)	13.0	6.0
Assets	3.9	15.4	(0.2)	3.7
Gross profit	(1.2)	(10.2)	20.9	6.0
Operating profit	(2.8)	(8.4)	25.9	6.0
Attributable profit	8.1	10.3	8.8	4.3
EPS	10.9	11.0	8.7	5.3
Recurring EPS	16.7	6.2	8.7	5.3
Du Pont analysis (%)				
Net profit margin	6.8	8.3	7.9	7.8
Revenue per Yen100 of assets	56.4	46.8	49.4	51.5
Assets/equity (x)	2.6	2.6	2.6	2.5
Return on equity	10.2	10.2	10.1	9.9
Others (%)				
Effective tax rate	27.5	25.2	27.0	27.0
Dividend payout ratio	29.5	29.7	30.0	30.0

- ★ Revenue was hit during the pandemic
- ★ The global car industry rebounded; however, semiconductor shortages constrained growth in the short run
 - This comprises a short-term drag on margins
- ★ The company targets to keep its ROE around 10% (with the help of its buyback program)



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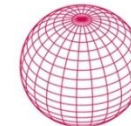
WCB

Risks

(YE Mar)	2020A	2021A	2022E	2023E
Internal liquidity (x)				
Current ratio	1.0	1.1	1.1	1.2
Quick, or acid test ratio	0.9	0.9	0.9	1.0
Working cap. mgmt (Days)				
Inventory conversion period	38	44	42	42
Receivables collection period	114	126	112	107
Days from raw mat to coll	152	169	154	149
Payables deferral period	78	82	77	73
Cash conversion cycle	74	87	77	76
Profitability ratios (%)				
Gross profit margin	18.0	17.8	19.0	19.0
EBIT margin	8.0	8.1	9.0	9.0
EBIT return on avg assets	4.5	3.8	4.4	4.6
Return on average assets	3.8	3.9	3.9	4.0
Financial risk (x)				
Liabilities-to-assets (%)	60.5	61.0	58.3	57.1
Debt-to-equity	1.0	1.1	0.9	0.9
Net debt-to-equity	0.7	0.7	0.6	0.6
Times-interest-earned	90.6	90.6	91.3	106.3
Effective interest rate (%)	0.2	0.2	0.2	0.2

- ★ Toyota is among the most consistent and most profitable car makers in the world
 - Competitors like VW and GM only achieve EBIT margin between 5 and 7%
- ★ The company has moderately high leverage

Free cash flow



Sales

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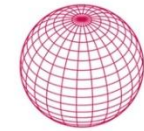
Value

WCB

Risks

(YE Mar, Yen bn)	2020A	2021A	2022E	2023E
EBIT	2,399.2	2,197.7	2,768	2,934
Tax rate (%)	27.5	25.2	27.0	27.0
NOPAT	1,740.3	1,644.4	2,020	2,142
Add: Depre & amort	1,595.3	1,644.3	1,955	2,140
Cash NOPAT	3,335.7	3,288.6	3,975	4,282
Chg in accts receivable	318.7	(445.0)	318	(564)
Chg in inventory	122.5	(354.1)	(87.3)	(179)
Chg in other curr assets	(111.4)	59.9	(65.0)	(55.4)
Chg in accounts payable	(1,113.6)	688.3	(254)	311
Chg in other current liabs	721.4	324.7	500	258
Less: Calculated chg in net	(62.5)	273.7	412	(228)
Less: CAPEX	(2,002.4)	(2,077.3)	(2,860)	(2,317)
Less: Chg in invested capital	-	-	-	-
Free cash flow to the firm	1,271	1,485	1,528	1,737

- ★ FCFF remained positive throughout the pandemic
- ★ High investment expenditures require a consistent generation of strong operating cash flows
- ★ It also needs recurring cash to continue its share buyback program which is an important element in the company's strategy



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Risks

Forecast assumptions			
	3-year average	Consensus	My assumptions
Revenue growth (CAGR)		9.1	7.8
Gross margin		18.6	19.0
EBIT margin		na	9.0
Net margin		9.0	8.0
My valuation method			
Market risk-free rate		0.5	
Market equity risk premium		8.0	
Market return		8.5	
Company beta (x)		1.0	
Cost of equity		8.5	
WACC		5.7	
Terminal growth rate		3.0	

Valuation Method:
FCFF

- ★ Global car sales likely to see strong rebound over the next 3 years
- ★ Profitability is suppressed in the short run by higher raw material prices and semiconductor shortages



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Ratios

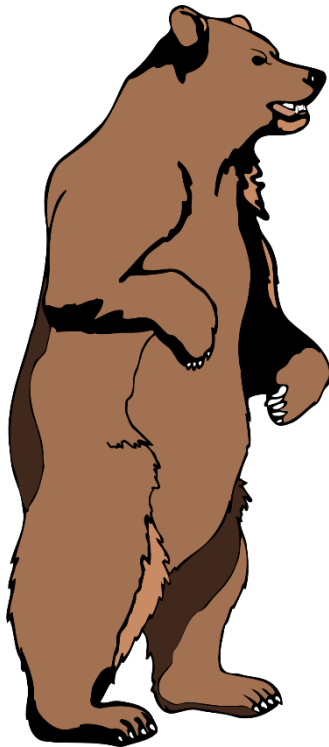
Value

Risks

Bear

JPY2,147

(Upside 0.9%)



Base

JPY2,226

(Upside 3.9%)



Bull

JPY2,309

(Upside 7.8%)



World Class Benchmarking Scorecard

- ★ Identifies a company's competitive position relative to global peers
- ★ Combined, composite rank of profitability and growth, called "Profitable Growth"
- ★ Scale from 1 (Best) to 10 (Worst)





Sales

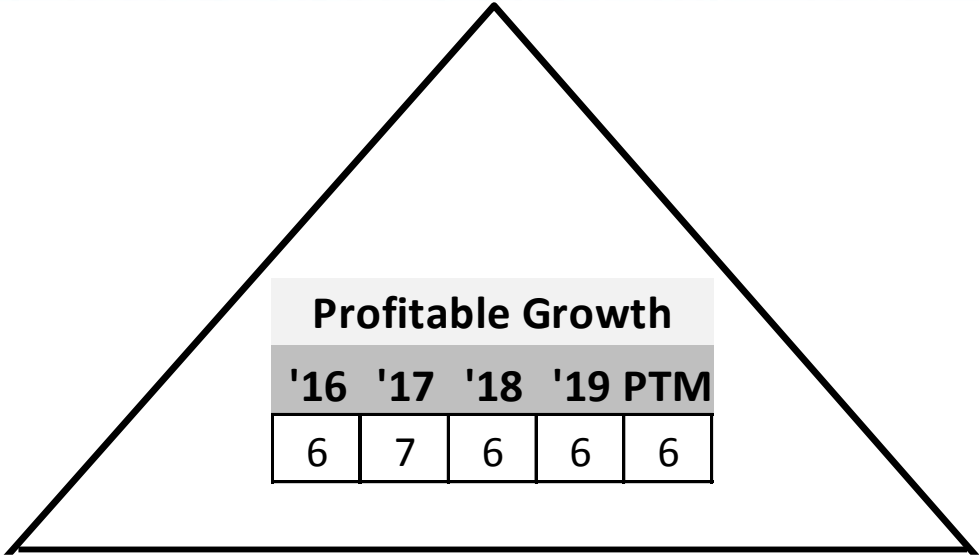
Story

FVMR

Value

WCB

Risks



Benchmarked against 1,000 large Cons. Disc. companies worldwide.



Sales

Story

FVMR

Value

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Risks

Slow improvement in margin

Profitable Growth

'16	'17	'18	'19	PTM
6	7	6	6	6

Profitability

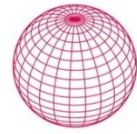
'16	'17	'18	'19	PTM
6	7	6	6	5

Growth

'16	'17	'18	'19	PTM
5	9	3	8	5

Average growth

Benchmarked against 1,000 large Cons. Disc. companies worldwide.



Sales

Story

FVMR

Value

WCB

Risks

- ★ Ongoing supply chain disruptions create shortages (e.g., semiconductor chips) and increase production costs
- ★ Failure to keep up with technological changes could result in loss of market share
- ★ Adverse regulatory changes that push for electric vehicles only policy

CONCLUSION

- Production is on track and could lead to record profits
- Solid dividend and share buyback offer attractive return even without upside
- In the long run, Toyota must sooner or later shift to EV

