WeAdvise Capital – Volkswagen AG: Valuation and Strategic Review

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Team Introduction

Nima Jeyrani

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Nima is in his final year at the University of Ottawa with a specialization in Finance. Over the past summer, he worked as a Analyst at HEXO in the Corporate Development team. He is also the leader of the student ran investment fund at the Telfer School of Management. In his free time, Nima enjoys skiing, swimming and travel.

Education

- University of Ottawa (Bachelor, 4th Year Finance)

Key Experiences

- HEXO, Corporate Development
- EDC, Student Analyst
- Telfer Capital Fund (PML)

Jonathan Khov

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Ottawa, Canada

Jonathan is a fourth year finance student from the University of Ottawa. He previously completed a consulting internship at Deloitte in their Strategy & Operations practice and another internship at a search fund in Toronto. During, his free time, he enjoys playing soccer, longboarding, and going hiking.

Education

- University of Ottawa (Bachelor, 4th Year Finance)

Key Experiences

- Spruce Grove Capital Summer Analyst
- Deloitte S&O Consultant Intern
- Telfer Capital Fund (PML)

Jack Lau

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Ottawa, Canada

Jack is in his final year at the University of Ottawa. He has previously completed a quantitative research analyst internship with Quandl and looking for new opportunity. During his free time, he enjoys poker, trading options, machine learning, and volunteering.

Education

- University of Ottawa (Bachelor, 4th Year Finance)

Key Experiences

- Quandl, Quantitative Research Analyst
- Trading Central, Equity Analyst
- Telfer Capital Fund (PM)

Julia Magahey

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Ottawa, Canada

Julia is in her third year at the University of Ottawa. Over the summer joined the Telfer Capital Fund, as student run investment fund. She recently joined as an analyst Mountain Hut Succession. In her spare time Julia enjoys teaching ridding lessons as well as training for her first marathon.

Education

- University of Ottawa (Bachelor, 3rd Year Finance)

Key Experiences

- Mountain Hut Succession Search Fund, Analyst
- Telfer Capital Fund (Analyst)

Executive Summary (Volkswagen Group)

Volkswagen is well-positioned to pursue M&A, a merger of Ford may lead to significant operational and financial risks. An acquisition of Nissan will lead to a promising future for VW with expansions into the EV market

1

Merger with Ford

Propels VW into market leading position across North America

- Merger with Ford results in leading exposure at 17.8% of the American market share
- Entry into truck market with future potential for EV/AI adoption
- Acquisitions lends to significant development in AI capabilities
- Diversification of vehicle brands increases customer depth and reduces business risk

2

Acquisition of Nissan

Expand EV portfolio and position VW for the future

- Acquisition of Nissan will position VW in a position to lead the EV market in coming years while also expanding into growing geographies
- Attractive time to acquire with the significant depressed stock price of Nissan
- Realize cost synergies with the global supply chain and manufacturing facilities of Nissan

3

Transaction Risks

Financial and operational risks

- Profitability issues with Ford and significant debt load can damage the combined company in future years
- Cultural mismatch with Ford and VW may lead to a deterioration of both brands
- R-N-M alliance will lead to difficulties with acquiring Nissan

Proposed Transaction Summary

The proposed merger with Ford has the potential to improve Volkswagen's core strategic objectives and gain an advantage over industry players that are equally evaluating business alternatives

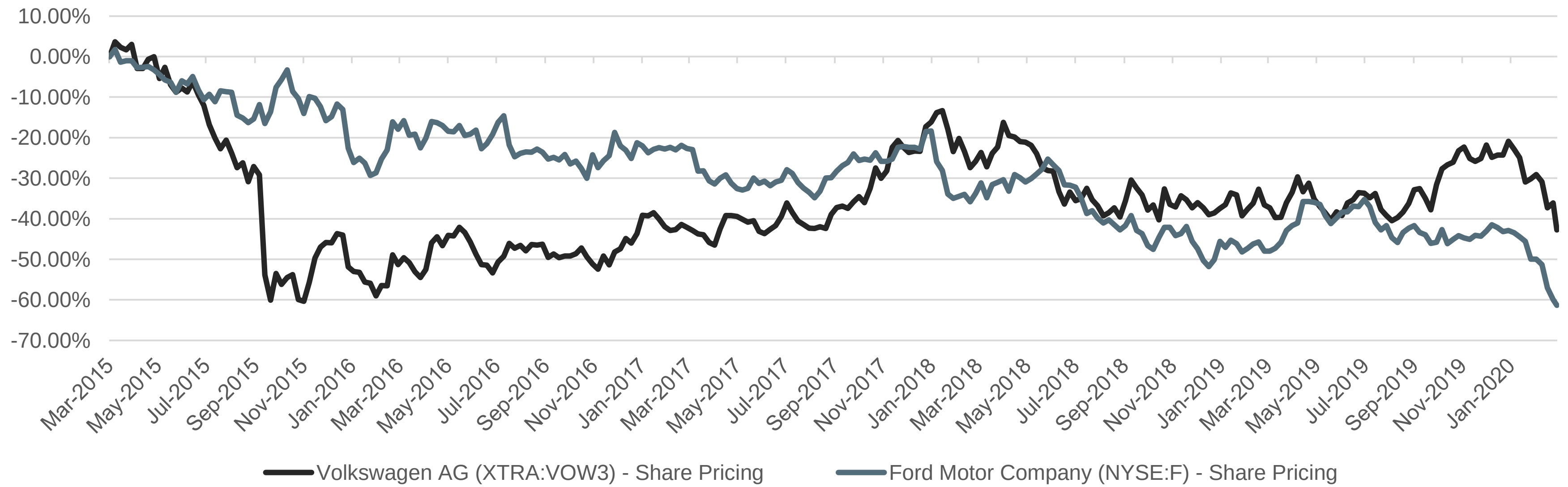
NA Expansion: Merger with Ford results in leading exposure at 17.8% of the American market

Product Diversification: Entry into truck market with future potential for EV/AI adoption

AI Capabilities: Significant AI improvement due to Ford ongoing investments

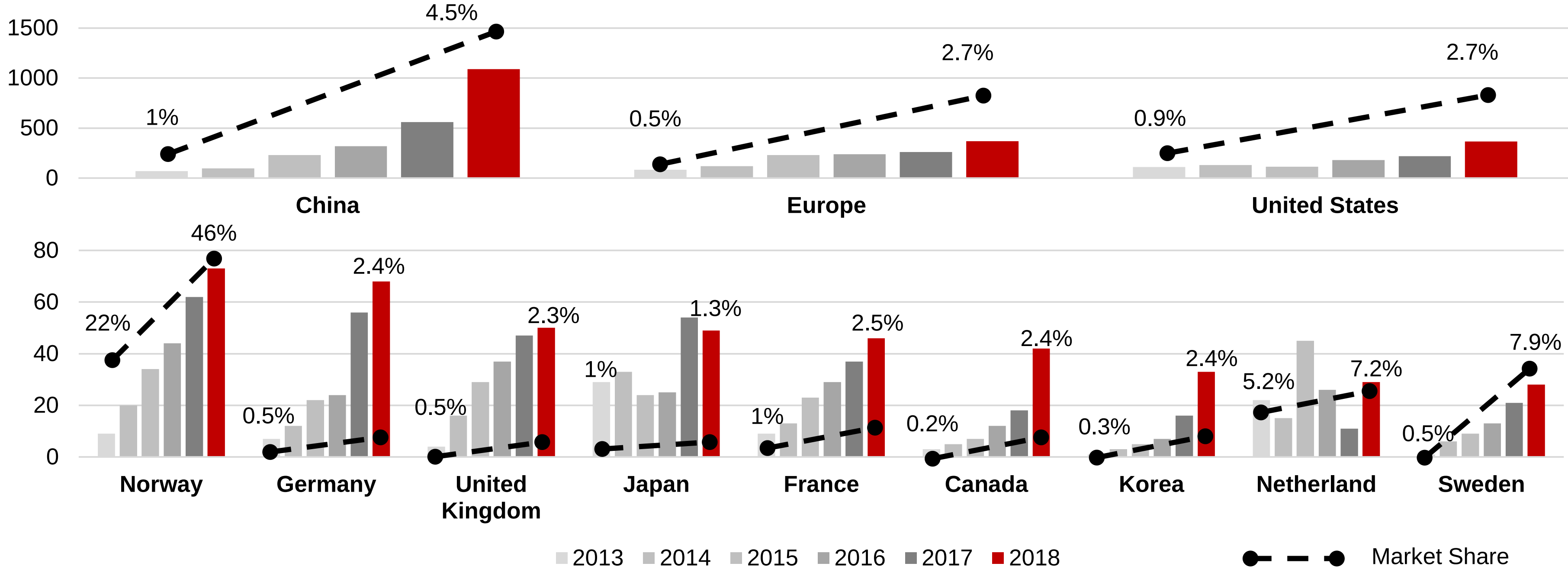
Synergy Potential: Drive production efficiencies and expertise in North American Market

Ford (FY2018)			
Sales	156bn	**EV**	159bn
EV/EBITDA	14.16x	**PE**	6x
EBITDA	11bn	**Debt / EBITDA**	14.05x
Cash	22.3bn	**Total Debt**	156bn



Electric Vehicles

Global Electric Car Sales and Market Share



The Race to Electrification

Electric mobility is expanding at a rapid pace, ~40% CAGR until 2030. The fast growth rate is influenced by the increasing new policies regarding CO2 emissions. This also incenses by benefit from zero- and low-emissions vehicles

China remains the world's largest electric car market follow by Europe and the United States. More important, European countries such as Norway, Sweden, Netherlands are already showing sign of switching point between Electric Cars and Gas Vehicles

In Europe and China several significant policy instruments were approved. This include minimum requirement for charging infrastructure in new and renovated buildings alongside with cash incentive supporting the roll-out of Electric Car

Major Competitors

Major automakers are adopting various strategies in a race to launch a new generation of vehicles with advanced technological and electrical capabilities to secure their long-term growth

Company	Revenues	Vehicles Sold 2019	Key Brands	Electric Capabilities	Geography
Toyota	$282bn	9.69million	Scion, Toyota, Lexus	**On Par** – All Toyota models expected to have EV versions by 2025	North America (35.3%) Japan (24.4%) Asia Pacific (17.7%) Other (22.5%)
Daimler	$189bn	2.62 million	Mercedes-Benz, smart, Maybach	**On Par –** Release of 10 EV models by 2022 while slowly electrifying the remaining portfolio	Europe (52%) North America (23%) Other (25%)
FCA	$119bn	4.36 million	Abarth, Fiat, Alfa Romeo, Lancia, Chrysler, Ram, Dodge, Jeep, SRT, Maserati	**Lagging -** Lack of emphasis on electric vehicles	North America (69%) International (31%)
Ford	$155.9bn	4.9 million	Ford, Lincoln	**On Par –** Ford Fusion in delivery with investments in EV trucks	Americas (70.4%) Europe (10.7%) Other (18.9%)
Nissan	$104.1bn	5.6 million	Nissan, Infiniti, Datsun	**On Par** – Leaf leading by volume, but growing competition in entry EVs	Japan (46.5%) North America (16.5%) Europe (14.3%) Asia (11.4%)
Volkswagen	$273.6bn	10.33 million	Volkswagen, Škoda, Audi, Seat, Bentley, Lamborghini, Bugatti	**On Par –** 70 EV models expected by 2030	Europe (61%) International (39%)

Overview of Strategic Alternatives

Strategic alternatives present opportunities for Volkswagen to execute on their strategy and pursue transformation towards electrification and digitization of their automotive vehicles

Alternatives	Overview	Approval Risk	AI Development	EV Capabilities	Risk
Make no Acquisition	• Allow Volkswagen to carry on with its existing strategy • Continue to grow organically in the EV market				
Merge with Ford	• Create the largest automaker in the world, leading in all major geographies				
Aggressively Pursue EV Development	• Increase Capex spending over next several years • Develop in-house strategic and technological advantages				
Acquire Nissan	• Create a leading EV automaker spread across all geographies • Use Nissan's existing EV infrastructure and expertise to propel expansion into the market				

AI Development

Automotive Software
Robot Cars
Self-Driving
Machine Learning

EV Capabilities

Battery Supply
Vehicle Types
Regulatory Environment
Brand Power

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AI Development

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EV Capabilities

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Regulatory Environment
Brand Power

Ford Merger Rationale

Merging with Ford provides an opportunity to achieve grow scale and accelerate Volkswagen's strategic objectives

Geographic Expansion	• Merging with Ford to capture 17.8% of the American market • Merger will create a European-American conglomerate, able to rival Fiat-Peugeot-Renault
Portfolio Diversification	• Diversify revenue streams by access to Ford's dominating presence in the trucking segment • Leverage Ford's AI technologies and further enhance the partnership in Argo.AI
AI Capabilities	• Significant opportunity for autonomous technology to complete in a highly competitive market • Execute on mandate to become an automotive software company
Revenue & Cost Synergies	• Adapting the MEB platform will allow for greater economies of scale across many vehicle bodies • Enhance production factories and distribution networks allowing "cheaper" reach to consumers • Access Ford's manufacturing AI systems to enhance inventory control and quality assurance for Volkswagen

Rationale #1: Geographic Expansion

Despite an increase in global reach, expansion into North America trends do not line up with Volkswagen's current strategy

Merger Rationale

- Merging with Ford will increase Volkswagen's exposure in the United States allowing access to new customer segments
- Increased number of manufacturing facilities, shifting from 4 current locations to 25 locations
- European-American conglomerate of Volkswagen and Ford will be a significant threat to the FCAU merger

Merger Downsides

Opportunity Costs

Rapidly Growing Markets: North America EV adoption has been slow and Ford has been losing market share from 19.9% to 14%

- Focus on China: EV tax incentives and highest proportion of fast charging stations

Limited Electrification: Ford has limited development into the electrification of their vehicles – merger does not futureproof VW

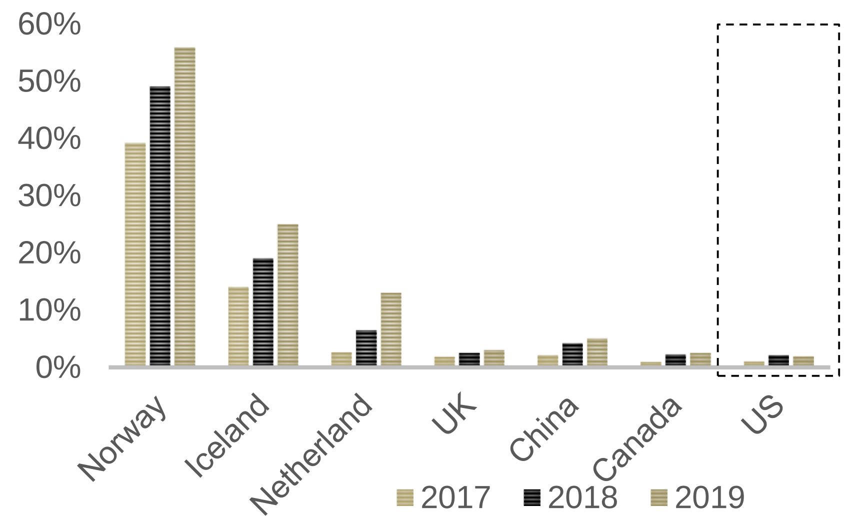
Investment Costs: $41.2bn investment can be prioritized on EV and AI investments

Electrification Infrastructure

Lack of infrastructure: Range anxiety in North America lags behind in charging infrastructure coupled with range anxiety

Electric Vehicle Partnership: Existing partnership with Ford for EV architecture is focused on European market over larger and less established US Market

Electric Vehicle Adoption Rate



Rationale #2: Lower Business Risk Through Product Diversification

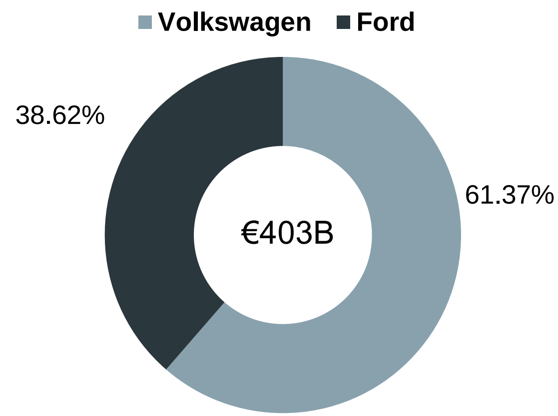
With the already well diversified product portfolio from Volkswagen focused on EV, the merger into Ford's truck portfolio will yield limited benefits for Volkswagen's focus on future proofing their vehicle line-up

Merger Rationale

- Expansion into Ford's industry leading truck portfolio and entry into market with future EV and AI potential
- Truck sales in the US maintain strength despite lower American sales volume
- Access into higher margin American luxury brands through Lincoln

Volkswagen Brand Portfolio

Ford Brand Portfolio



Merger Downsides

- Volkswagen and Ford have pre-existing joint venture relationship on commercial vans and pickups
- Volkswagen previously tried to spin off its luxury Lamborghini to maximizing shareholder's value, as premium models tend to trade at significantly higher multiples (3.4x revenue and 15x EBITDA vs. peers average of 1x revenue and 10x EBITDA.
- Volkswagen currently has well diversified product mix, the upside through expanding to trucks are limited

Rationale # 3: Pooled Artificial Intelligence Knowledge

Acquisition increases access to Ford's AI portfolio, yet VW is already heavily invested in the most promising technology with Argo AI

Merger Rationale

- Ford had committed to spending $4B over the next three years and plans to sell autonomous cars by 2021
- Enhances the existing stake in Argo. AI and opportunity to include strategic partnerships with Walmart and Amazon
- Achieve industry leading status against competitors including tech companies for autonomous capabilities

Merger Downsides

Current Stake

- Volkswagen is already involved in Ford's most promising A.I initiatives: **Argo. AI**
  - Contributing $2.6B → ~1.5x the amount of Ford
- Volkswagen will be purchasing $500mm shares from Ford over the next three years

The likelihood of Volkswagen accessing any significant new AI technologies is small

Current Partnerships

- Volkswagen has spun off its own subsidiary-VWAT with the goal of robot cargo and taxis
- Current partnership with Microsoft to develop: Volkswagen IOS

Volkswagen already has many strategic initiatives dedicated to AI and autonomous development

Take on Debt Burden

Current Balance: 14.25B → New Balance: 27.15B

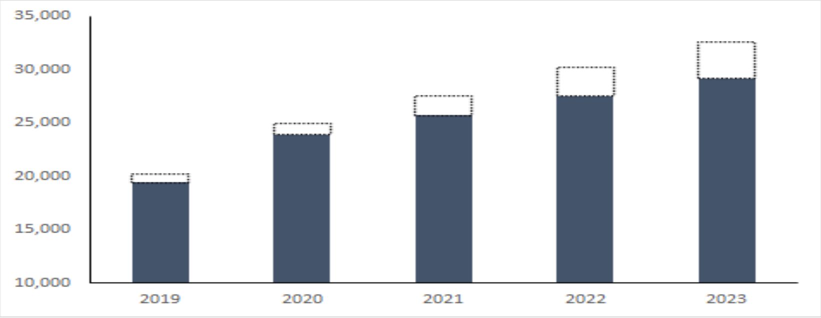
- Merging with Ford, requires Volkswagen to take on Ford's debt
  - Increase of ~12.9B

With potential litigation fees threatening, Volkswagen needs to remain in optimal financial position

Rationale #4: Potential Revenue and Cost Synergies

Significant synergies are unlikely to materialize due to the different brand culture and existing joint venture agreements with Ford

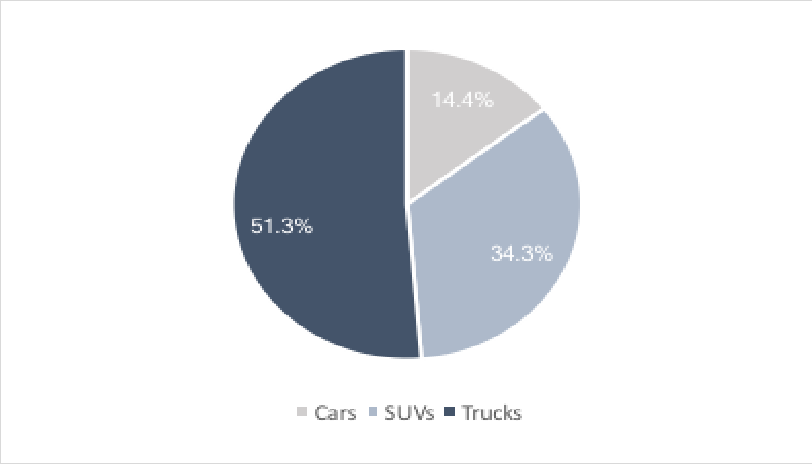
Merger Rationale



- Expecting 780M (3.8%) in EBITDA improvements during the first year, increasing to 3.4B (10.4%) by 2023 after complete integration
- Cost synergies will be realized through savings in:
  1. G&A
  2. Marketing
  3. Distribution

Merger Downsides

Ford Product Portfolio



Limited Remaining Synergies

- Ford and Volkswagen both appeal to significantly different demographics and car owners; limited brand synergy
- Incremental synergy potential is lower due to existing partnership agreements
- Integration risk is high due to different strategic objectives
- Margin on Ford vehicles falls short relative to VW luxury

Ford – VW Merger Model

Key Merger Assumptions

Price Consideration

- 25% equity premium provides a healthy consideration for the shareholders of Ford at a purchase price of $6.89 per share.
- Share price is in line with the intrinsic value of Ford while still being a reasonable for Volkswagen

Synergy Consideration

- 0.5% improvements to EBITDA on a pro-forma basis
- No revenue synergies will arise from the merger and assume a conservative ramp up on synergies with the full value being realized in 2023

Financing Consideration

- 80% of the acquisition will be funded through equity with the remaining 20% through cash
- External funding requirements for the acquisition will be $35 billion and 210 million shares of Volkswagen will be issued - No debt will be required for the acquisition

Accretion/Dilution

Key Outputs:	**2019**	**2020**	**2021**	**2022**	**2023**
% Change in EPS	(23%)	(12%)	(4%)	2%	7%
EBITDA Improvement	780	996	1,834	2,706	3,403

Transaction Sensitivity

		Premium Paid				
		10%	**20%**	**30%**	**40%**	**50%**
% Equity Paid	**90%**	(4.7)%	(6.7)%	(8.6)%	(10.5)%	(12.2)%
	80%	(1.5)%	(3.4)%	(5.2)%	(6.9)%	(8.6)%
	70%	2.0%	.2%	(1.5)%	(3.2)%	(4.9)%
	60%	5.7%	4.0%	2.3%	.6%	(1.1)%
	50%	9.6%	8.1%	6.6%	5.2%	3.8%

Recommendation: Acquire Nissan

Nissan's access to a larger Asian market in addition to advancing capabilities in EV and AI are complementary to VW's growth strategy

Market Timing

- Nissan stock price down ~70% over the past five years
- Situation with Ghosin has weakened R-N-M alliance resulting in attractive bid price

Potential Synergies

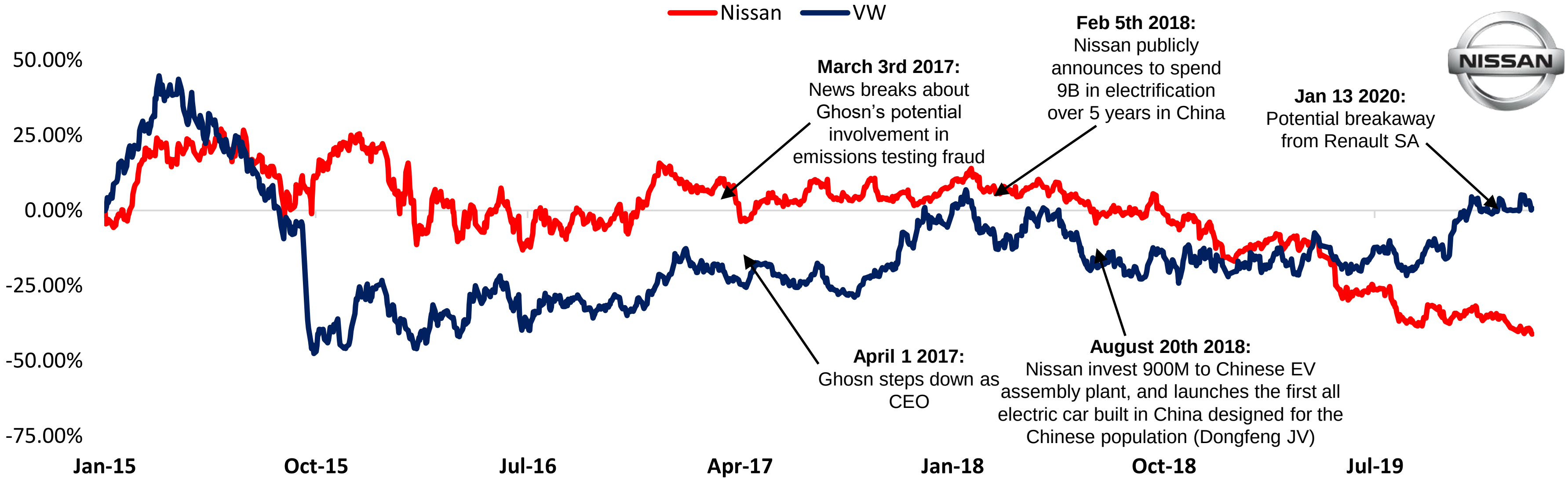
- ~1.25-2.5% cost synergies due to shared manufacturing and leveraging economies of scale
- Lower integration costs due to culture and strategic match with Volkswagen

Future Oriented Product Portfolio

- Nissan Leaf established EV brand in North America and growing presence across Asia
- Investments into AI technology complement Volkswagen's focus on automotive software

Rationale #1: Great Entry Time for Acquisition

Nissan's current depressed stock price means it is the optimal time for Volkswagen to acquire



Rationale

- Relative size and the slow down in auto industry's business cycle provides a perfect acquisition in both timing and target
- Deteriorating relationship between the RNM alliance and Fiats proposed merger gives an optimal opportunity for an acquisition of Nissan
- Both VW and Nissan have similar presence in NA, while Nissan has stronger a presence in Asia, while VW dominates Europe

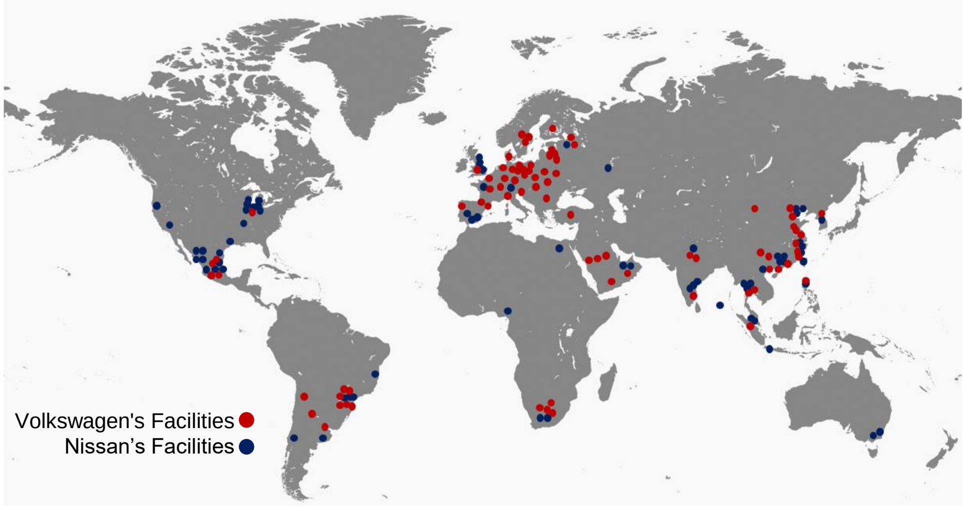
Risks

- Potential shareholder resistance may arise as Renault currently holds a 43.4% voting stake in Nissan, however this recommendation could help alleviate the cash strain Renault is currently facing
- The current alliance structure between the Nissan - Mitsubishi - Renault creates a trickier and more complex landscape for integration, however thanks to successful current JVs, Volkswagen understands how to navigate these risks and how to mitigate their impact

Rationale #2: Cost Synergies

Acquiring Nissan increases Volkswagen's access and utilization of manufacturing facilities

Plants Around The World



Key Facts & Statistics

Volkswagen:

- €111B in PP&E as of 2019 Q3
- Automotive EBITDA Margin of 15.4% as of 2018
- VW operates ~122 production plants in the globe, where 71 of them are located in Europe, 33 in Asian, 5 in North America, 9 in South America and 4 in Africa

Nissan:

- €43.8B in PP&E as of 2019 Q3
- Automotive EBITDA Margin of 12.3% as of 2018
- VW operates ~41 production plants in the globe, where 5 of them are located in Europe, 29 in Asian, 7 in North America, 4 in South America and 3 in Africa

- **Estimated Cost Synergy: ~1.25 – 2.50%**

Key Takeaway

- RNM reported a total of €5.7B in synergies through their strategic alliance relationship
- Volkswagen and Nissan both share a similar sub segment of the automotive industry, and Volkswagen's expertise can enhance Nissan's profitability and reach
- Volkswagen will be able to expands its brand portfolio to include Nissan, Infiniti and Datsun, alongside to further its presence in emerging market

Rationale #3: Expanded EV Portfolio

By acquiring Nissan, Volkswagen gains access to Nissan's EV Portfolio.

Global Plug-in Electric Vehicle Market Share in 2019

Pre-Acquisition

Tesla	16.64%
BYD	10.39%
BAIC	7.25%
SAIC	6.23%
BMW	5.83%
Volkswagen	**3.81%**
Nissan	**3.64%**
Geely	3.43%
Hyundai	3.30%
Toyota	2.50%

Post-Acquisition

Tesla	16.64%
BYD	10.39%
Volkswagen + Nissan	**7.45%**
BAIC	7.25%
SAIC	6.23%
BMW	5.83%
Geely	3.43%
Hyundai	3.30%
Toyota	2.50%

Rationale

- The trend in the auto-industry is to focus on increasing production in EV, until recently Volkswagen was lagging, and had limited effort into making a pivot towards their business model.
- Previously, Nissan had a great success in the EV market with its Leaf model; however, due to lack of innovation efforts the Nissan Leaf did not reach its full potential. With Volkswagen strong intention of investing around € 33B in electric mobility, both company will finally have a strong foothold to compete against other EV competitors.
- By combining the EV's portfolio for both Volkswagen and Nissan, Volkswagen's EV presence will doubled as well as Volkswagen will be able to leverage its recent afford in acquisition of many EV battery companies to improve both companies EV presence.
- Combined, they are aimed to take over BYD and catch up with the competition against Tesla.

Conclusion

Recommendation To Merge With Nissan And Engage Us, WeAdvise Capital, As An Advisor

Why Hire WeAdvise Capital	
Expertise in Auto	• Our experience in the auto industry allow us to help you best position yourself with the growth of electrification and autonomous driving.
Client Focus	• WeAdvise Capital will always try our best to ensure that you are on track to maximize your shareholders' values
Long Term Relationship Focus	• WeAdvise Capital tried our best to aim for a ever lasting long term relationship with all our clients. Therefore, it would make our negotiation with the target seamlessly.

We tried our best to put your on track to succeed

Appendix D: Model Output Templates

NIBC 2020 Global Competition | First Round

NIBC | NATIONAL INVESTMENT BANKING COMPETITION & CONFERENCE

Merger Model Outputs | (1/2)

Key Results	2019	2020	2021	2022	2023
Accretion / (dilution)	**(22.9)%**	**(12.0)%**	**(4.3)%**	**2.0%**	**6.6%**
Proforma Net Debt / EBITDA	**0.7 x**	**2.0 x**	**2.3 x**	**2.3 x**	**2.3 x**
Acquirer Net Debt / EBITDA	1.8 x	1.8 x	1.8 x	1.8 x	1.8 x
EBITDA Improvement	780	996	1,834	2,706	3,403
PF EBITDA before Synergies	19,422	23,939	25,733	27,513	29,162
Incremental Interest Expense	-	-	-	-	-

Enterprise Value	**VG**	**Ford**	**@ Offer**
Current Share Price	$133.34	$5.52	$5.52
Offer Price	N/A	N/A	$6.89
Equity Value	66,843	22,084	27,605
Debt (Automotive)	14,247	12,932	12,932
Cash & Equivalent (Automotive) [input as negative]	(22,274)	(6,219)	(6,219)
Enterprise Value (Automotive Method)	**58,816**	**28,797**	**34,318**
EBITDA 2019E	30,234	10,389	10,389
EV/EBITDA 2019E	1.8 x	2.4 x	2.9 x

Pro Forma Share Issuance	
Acquirer Stock Consideration	27,954
Acquirer Diluted Shares Outstanding (mm)	501
New Acquirer Shares Issued (mm)	210
PF Diluted Shares Outstanding (m)	**711**
PF Ownership (Acquirer / Target)	**70.5% / 29.5%**

Merger Model Outputs | (2/2)

($ millions)

Financing Assumptions	
% Stock Consideration	80.0%
Premium Paid	25.0%
Transaction Costs	1.5%
Acquirer Cash Balance Used	10,000

Synergy Assumptions (% of Target Sales)	
1) G&A Synergy	0.5%
2) Marketing Synergy	0.5%
3) Transportation Synergy	0.5%
4) Production Synergy	0.5%
5) Revenue Synergy	0.0%
6) Revenue Synergy	0.0%

Sources		
Stock Issued	27,954	80.0%
New Debt	-	0.0%
Cash from Acquirer	6,989	20.0%
External Sources	**34,943**	**100.0%**
Cash Available at Target	6,219	
Total Funding Sources	**41,161**	

Uses			
Equity Market Value		22,084	53.7%
Equity Premium Paid	25%	5,521	13.4%
Repayment of Debt		12,932	31.4%
Transaction Fees		624	1.5%
Funding Requirements		**41,161**	**100.0%**

Merger Model | Assumptions (1/1)

Key Assumptions		
Transaction Assumptions		**Comments**
% Purchased	100.0%	Assuming all of Ford will be Acquire
% Stock Consideration	80.0%	Minimize debt load
Premium Paid	25.0%	Healthy premium for Ford
Transaction Costs	1.5%	Standard Fee
Acquirer Cash Balance Used	10,000	Significant VW cash balance
Transaction close	01-Jun-19	
Synergy Assumptions		**Comments**
Run-rate Synergies	% AMC Sales*	
1) G&A Synergy	0.5%	Overhead reduction
2) Marketing Synergy	0.5%	Combined marketing efforts
3) Transportation Synergy	0.5%	increased facilities
4) Production Synergy	0.5%	increased facilities
5) Revenue Synergy	0.0%	Will not generate synergy
6) Revenue Synergy	0.0%	Will not generate synergy