FitchSolutions

Nigeria

Autos Report

Includes 10-year forecasts to 2028

Contents

Key View

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New Vehicle Sales
Nigeria (2016-2028)
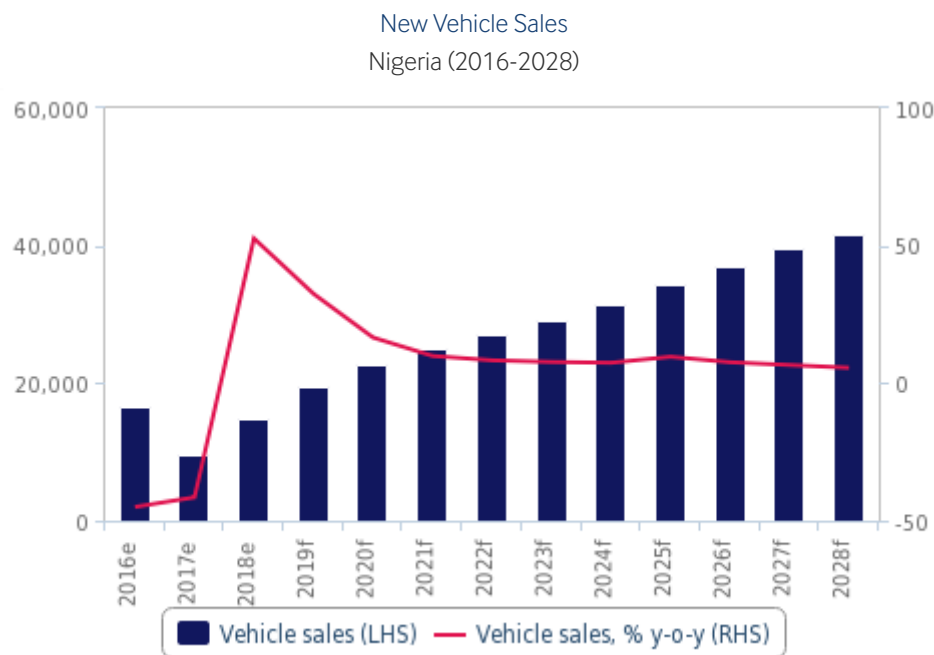
e/f = Fitch Solutions estimate/forecast. Source: National sources, Fitch Solutions

Key Views

Key Views:

- We believe that Nigeria's vehicle sales market will continue its recovery path in 2019, as the economy strengthens in tandem with the oil prices, which will lead consumers to return to the automotive market following a sustained period of demand building up. Therefore, we forecast domestic vehicle sales in Nigeria to grow by 32.5% in 2019, driven by a continuation of the rebound following the 2016-2017 slump in sales due to deteriorating economic conditions.
- Higher oil prices will boost infrastructure spending as the government has more flexibility for fiscal expansion, which will boost demand for commercial vehicles.
- We believe lower-cost and used vehicles will outperform in the Nigerian automotive market, as new and higher-end vehicles will remain out of reach of the vast majority of the population. Furthermore, high import tariffs for Fully Built-Up vehicles are to limit the growth potential for vehicle sales in our 2019-2028 forecast period.
- The implementation of the National Automotive Industrial Development Plan bill into law could be bullish for domestic vehicle production in Nigeria.
- The implementation of a market development plan, particularly the Vehicle Purchase Incentive Scheme (which aims to boost demand by providing longer term and more affordable borrowing rates for vehicle finance) will have the potential to significantly boost new vehicle sales as high borrowing costs remain a barrier to higher vehicle ownership in the country.
- We expect local currency stability and improving liquidity in the economy to improve the operating environment for automakers producing vehicles in the country. This will improve automakers' ability to pay for and clear shipments of imported kits and

vehicle components required in the manufacturing process. We therefore forecast total vehicle production in Nigeria to grow by 21% in 2019, reaching a total of around 4,270 units by year-end.

SWOT

SWOT Analysis

Strengths

- Rebounding global crude oil prices are more favourable for the Nigerian economy and will spur aggregate demand, which will bode well for vehicle demand in the country.
- Large population and lax labour laws are a positive for automotive manufacturers aiming to move production into the country.
- More automotive manufacturers are increasingly looking at resuming production in Nigeria as the economic situation eases and automakers vie to be well poised to capitalise on the rebounding economy.

Weaknesses

- The Nigerian economy is highly dependent on oil revenues, and shocks in global oil prices have an affect on the broader economy.
- Low income levels translate into limited demand for new vehicles, as consumers have very limited discretionary spending power.
- High borrowing costs make it difficult for consumers and businesses to utilise loans to purchase new vehicles.

Opportunities

- Nigeria boasts a large population, which improves the growth potential for automakers operating in the country.
- A lack of a sufficient transport infrastructure and the relatively low level of vehicle ownership in the country presents opportunities for ride-hailing and mobility services.
- Once finalised, the National Automotive Industry Development bill could provide manufacturers with incentives to produce cars locally in Nigeria.

Threats

- Completely built up (CBU) passenger vehicles imported into the country face a 35% tariff and CBU commercial vehicles face a tariff rate of 75%. This makes imported vehicles expensive, and in a country where the consumer base able to afford vehicles is already low, this will place further strain on the ability of consumers to own vehicles.
- Security concerns in the North and in the Niger Delta regions may have an adverse effect on new Foreign Direct Investments into the country, which is responsible for a significant portion of commercial vehicle demand in the country.

Industry Forecast

Industry Forecast Scenario

Key View: *We maintain our forecast of a 32.5% increase in domestic new vehicles sales, driven by an improved economic outlook as inflation eases and borrowing costs maintain their downward trajectory. We expect new vehicle sales to reach 19,570 units for 2019. We remain bullish on the commercial vehicle segment as capital investments are expected to boost infrastructure spending, and passenger vehicle sales will benefit from an overall improved economic outlook. The finalisation of the Automotive Industrial Development Plan (AIDP) could be bullish for domestic vehicle production in Nigeria.*

AUTOS TOTAL MARKET - HISTORICAL DATA AND FORECASTS (NIGERIA 2017-2028)												
Indicator	**2017e**	**2018e**	**2019f**	**2020f**	**2021f**	**2022f**	**2023f**	**2024f**	**2025f**	**2026f**	**2027f**	**2028f**
Vehicle production, mn	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Vehicle production, % y-o-y	-33.3	17.5	21.0	24.8	17.2	11.3	13.3	14.2	13.9	13.7	13.5	13.3
Vehicle sales, mn	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
Vehicle sales, % y-o-y	-41.5	52.6	32.5	16.6	9.9	8.3	7.7	7.4	9.6	7.6	6.6	5.6

e/f = Fitch Solutions estimate/forecast. Source: OICA, Nigeria Customs Service, Local carmakers, Fitch Solutions

Latest Developments

- **Volkswagen** has recently signed a memorandum of understanding (MoU) with the federal government of Nigeria about plans to re-enter the Nigerian automotive market. The plan is to initially set up a Semi Knocked Down (SKD) assembly operation with plans to move up to Completely Knocked Down (CKD) kits.
- The NAIDP bill has been accented to the president awaiting his approval.
- **CFAO Motors**, a vehicle distribution company, is re-introducing the King Long - the 15-seater passenger bus that has been tested in the Nigerian market returns as the market for high volume passenger vehicles remains strong on the back of improved economic conditions.
- The NADDC has announced a partnership with three Nigerian banks to introduce the Vehicle finance scheme which aims to reduce borrowing costs of new vehicles assembled in Nigeria. The launch of the scheme is expected to be unveiled in May 2019.

Structural Trends

Sales

We believe that Nigeria's vehicle sales market will continue its recovery path in 2019, as the economy strengthens in tandem with the oil prices, which will lead consumers to return to the automotive market following a sustained period of demand building up. Therefore, we forecast domestic vehicle sales in Nigeria to grow by 32.5% in 2019, driven by a continuation of the rebound following the 2016-2017 slump in sales due to deteriorating economic conditions.

We expect the recovery in the broader economy to continue to be driven by more favourable oil prices, which in turn will translate in to a more positive consumer sentiment. This will ultimately boost new vehicle sales over our 2019-2028 forecast period. We see new vehicle sales growth for 2020 and 2021 at 16.6% and 9.9% respectively, as the market cools after the rebound has lost steam. Thereafter we expect vehicle sales to grow at an average annual rate of 11.2% over the remainder of our 2019-2028 forecast period.

Further aiding the consumers ability and willingness to purchase new vehicles, is our expectation that easing consumer headwinds

in the form of weakened inflationary pressures and lower borrowing costs to help support growth of sales in the passenger vehicle segment. For the commercial vehicle (CV) segment, we expect an uptick in construction sector activity to help drive demand for light commercial vehicles (LCVs) and heavy trucks.

Vehicle Sales To Continue On Recovery Path
Nigeria - Vehicle Sales, Units
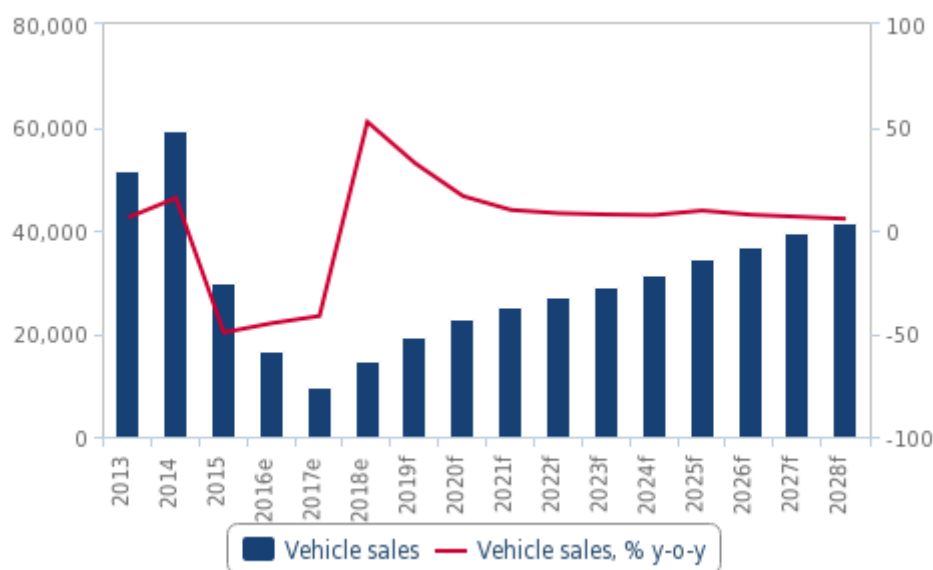
e/f = Fitch Solutions estimate/forecast. Source: Nigeria Customs Service, Local carmakers, Fitch Solutions

Confidence In the Nigerian Economy Rising

Vehicle sales in Nigeria have dropped drastically over the last few years as an economic downturn caused by, the collapse in global oil prices, a scarcity of foreign exchange, elevated inflationary pressures and high interest rates eroded consumer purchasing power. We believe that as economic growth picks up, and the mentioned macroeconomic headwinds subside, consumption in Nigeria will increase, which in turn will aid the recovery in the country's automotive sector. Our Country Risk team expects Nigeria's economic recovery to gain momentum in 2019, with forecast real GDP growth of 2.5%, as the recovery in the oil sector drives continued improvements in the Nigeria economy. That said, we expect this improving economic outlook to help drive up consumer and business spending as confidence starts to recover.

We believe that 2018 looks set to be a more positive year for Nigerian consumers than the previous 2015-2017 period, as economic growth picks up and inflation eases. More businesses and consumers will be able to afford to take on more loans due to the reduced interest payment caused by falling borrowing costs. We see this as a strong reason for further upside in vehicle sales over our 2019-2028 forecast period. Our country risk team estimates that central bank policy rate will be maintained at 14% in 2019 and 2020, falling to 11% in 2021. The central bank policy rate is expected to average 10.9% in our 2019-2028 forecast period.

GDP Grows As Inflation And Borrowing Costs Fall

Nigeria - Inflation, GDP Growth & Interest Rate
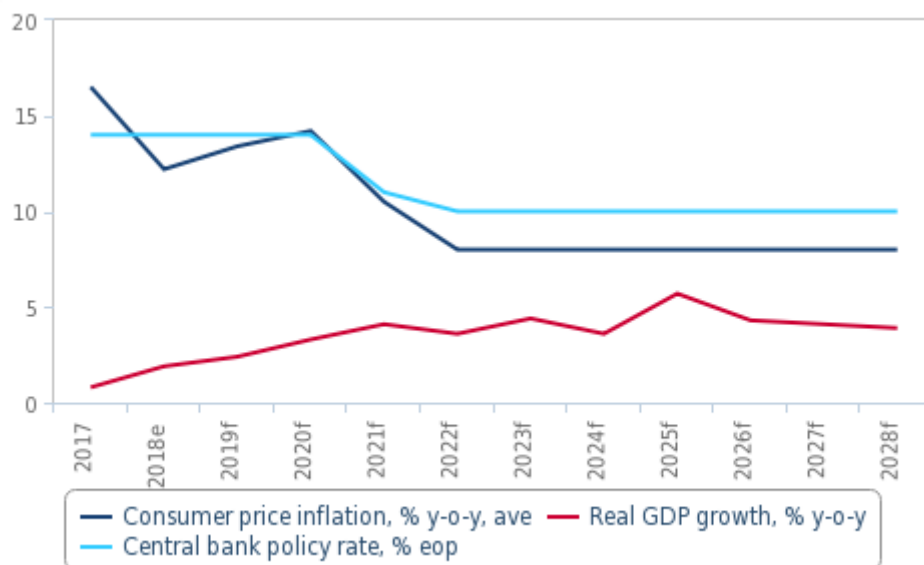
e/f = Fitch Solutions estimate/forecast. Sources: National Sources, Fitch Solutions

Furthermore, our Country Risk team believes that Inflation will accelerate modestly in H119, owing largely to increased food price pressures and higher government spending around the presidential and legislative elections. Average annual inflation rose to 11.4% y-o-y in December 2018 from 11.3% in the previous month its third consecutive increase on the back of higher food prices. Further increases are likely in the coming months, given continued disruptions to the supply chain as a result of ongoing instability in key production areas. With depreciation of the naira boosting import prices, we are forecasting annual average inflation of 13.4% in 2019 up from 12.2% in 2018, which will erode some of the willingness of consumers to make larger purchases such as vehicles.

Used And Low Cost Vehicles To Dominate

We believe lower-cost and used vehicles will outperform in the Nigerian automotive market, as new and higher-end vehicles will remain out of reach of the vast majority of the population. Furthermore, high import tariffs for Fully Built-Up vehicles (FBUs) are to limit the growth potential for vehicle sales in our 2019-2028 forecast period. Nigeria's population is largely characterised by low income levels limiting the size of the population that can afford a vehicle, especially a new vehicle. Our 2018 estimate for average household income is NGN1mn (USD2770.62) we expect that figure to rise to NGN1,7mn (USD4710.05) by 2023. The percentage of households that fall under the USD1000-5000 per annum bracket is the highest at an estimated 78.5% for 2018, we forecast a reduction to 71.6% as economic growth will enable more households achieve a higher income status. As incomes rise, we expect the affordability of the Nigerian consumer to improve, further aiding new vehicle sales.

New Vehicle Sales To Improve Amid Higher Incomes
Nigeria - Gross Income & Vehicle Sales
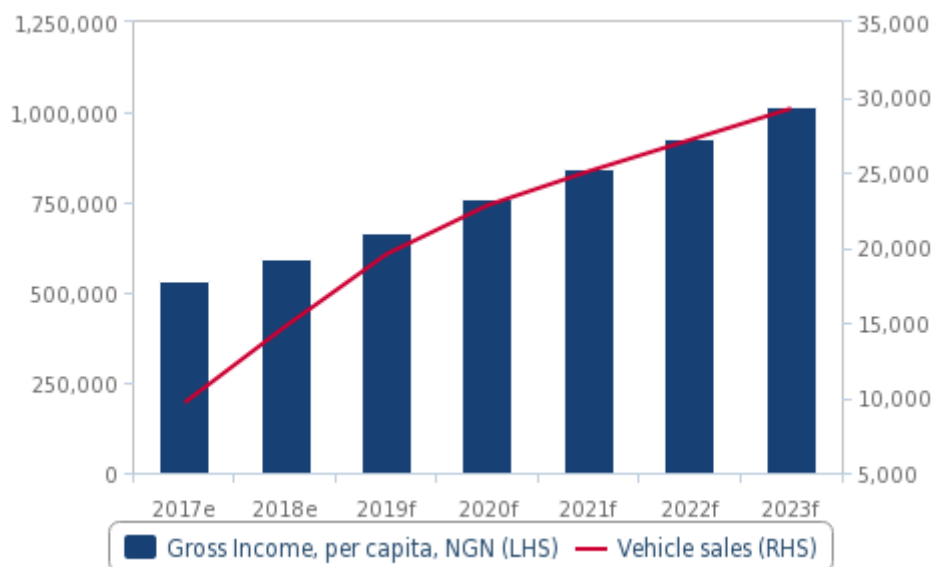
e/f = Fitch Solutions estimate/forecast. Source: National sources, Fitch Solutions

Higher Infrastructure Spending to Boost Demand For Commercial Vehicles

We believe that commercial vehicle sales will benefit from higher oil prices as the government will have more room for fiscal expansion in the form of higher infrastructure spending. Our Oil & Gas team's forecast for the OPEC reference rate for 2019 is at USD70bbl for 2019 and increasing to USD77bbl by 2020 and settling at USD81bbl by 2021, which means that the government will have the capacity to ramp up their spending on developing the country's infrastructure. Our country risk team forecast's government expenditure to increase by 22% in 2019 to NGN9,5trn from an estimated NGN7,7trn in 2018 and our Infrastructure team also expects that the construction industry value will increase by 6.8% over the same period. We do however note that that growth will be somewhat subdued as the existing CV fleet from the previous boom will limit the need for new purchases.

Higher Oil Prices To Boost Fiscal Spending
Nigeria
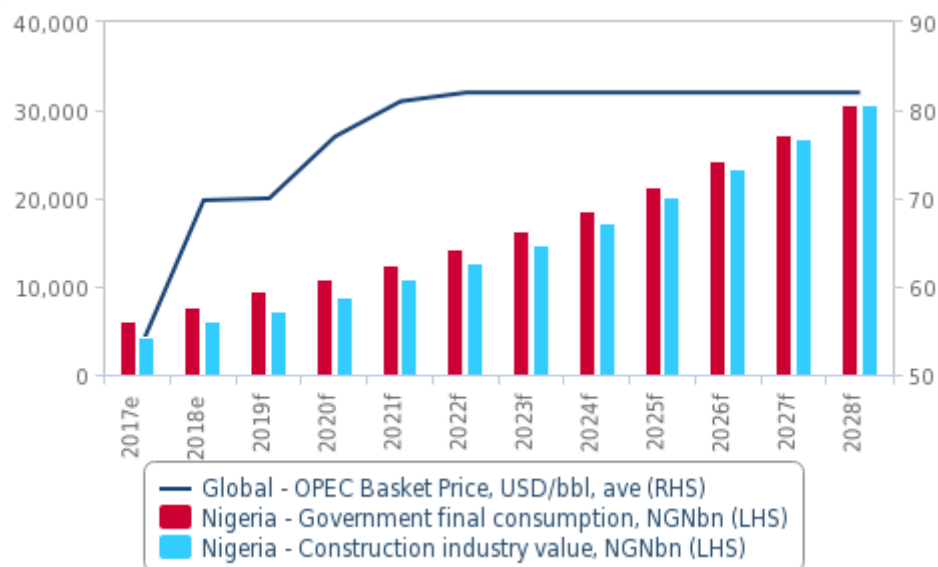
e/f = Fitch Solutions estimate/forecast. Source: National sources, Fitch Solutions

Vehicle Purchase Scheme To Boost Sales

The implementation of a market development plan, particularly the Vehicle Purchase Incentive Scheme (which aims to boost demand by providing longer term and more affordable borrowing rates for vehicle finance) will have the potential to significantly boost new vehicle sales as high borrowing costs remain a barrier to higher vehicle ownership in the country. The vehicle finance scheme forms an integral part of the NAIDP. The implementation of the plan is expected to commence in May 2019, and plans to allow Nigerians to put down a deposit of 10% or less of the value of a vehicle and the remainder will be paid back over a number of years. Plans to introduce a vehicle finance scheme with the participation of three deposit money banks has been announced by NADDC.

Production

We expect local currency stability and improving liquidity in the economy to improve the operating environment for automakers producing vehicles in the country. This will improve automakers' ability to pay for and clear shipments of imported kits and vehicle components required in the manufacturing process. We therefore forecast total vehicle production in Nigeria to grow by 21% in 2019, reaching a total of around 4,270 units by year-end. Furthermore, we believe that the recovery in the domestic vehicle sales market will serve to further increase the motivation behind automakers re-establishing and ramping up vehicle production in the county. Over our 2019-2028 forecast period, we expect total vehicle production in Nigeria to grow at an annual average of 15.6%, reaching a total of around 14,961 units by the end of 2028. However, we note that there is strong upside potential for vehicle production in the country, as it provides quite a substantial long term reward profile.

Resurgence In Production As Economy Improves
Nigeria - Vehicle Production
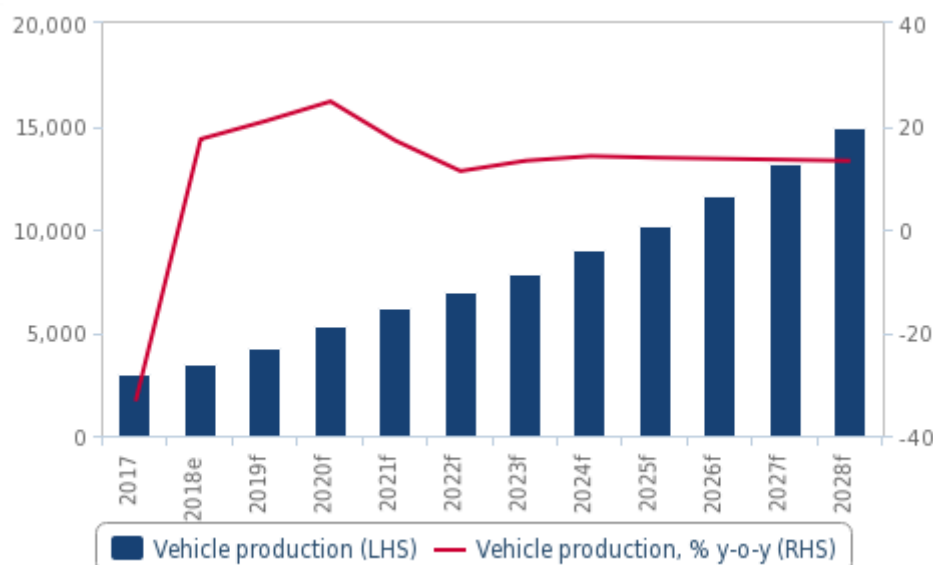
e/f = Fitch Solutions estimate/forecast. Source: OICA, Fitch Solutions

The Adoption Of The Automotive Industrial Development Plan To Boost Production

We believe that the finalisation of the NAIDP could potentially boost domestic production of vehicles in Nigeria. The policy will seek to attract international Original Equipment Manufacturers (OEMs) through incentives such as the removal of tariffs for Completely Knocked Down (CKD) kits at 0% and Semi Knocked Down (SKD) kits at 10%, the creation of Industrial Parks and increased tariffs of imported fully built vehicles to boost demand for locally assembled vehicles. That said, the effectiveness of this policy will depend on the availability of foreign exchange and the stability of the country's currency, as automakers will require a very liquid trade environment in order to build its required supply chains to re-establish their respective vehicle production operations in Nigeria.

Return Of Manufacturers To Utilize Already Existing Capacity

Nigeria possesses a large underutilized capacity of vehicle production which could be rekindled at much lower costs as compared to establishing vehicle production facilities from scratch. We highlight that News of the NAIDP bill has resulted in a renewed optimism in the prospects of the Nigerian automotive industry and has resulted in Volkswagen announcing that it would return to Nigeria. Volkswagen has signed a MoU with the Federal government of Nigeria with plans of returning into the Nigerian market, and we estimate that it will start to utilise an installed production capacity of around 100,000 units (2013 estimates). Furthermore, we believe that this will have a supportive effect on the momentum behind the returning automotive manufacturing.

NIGERIA'S HISTORICAL VEHICLE PRODUCTION CAPACITY (2013)

No	Plant	Area	Products	Annual Capacity
1	ANAMMCO	Enugu	Trucks, buses	5,000
2	GM Nig	Lagos	Trucks, buses	500
3	Innoson Vehicle Mfg. Co	Nnewi	Pickups, buses, trucks	1,000
4	Iron Products Industry (IPI)	Lagos	Trucks, tankers, bodies, buses	400
5	Leventis Motor Ltd.	Ibadan	Trucks, buses	5,000
6	Leyland-Busan Ltd	Ibadan	Trucks, buses	5,000
7	NTM Nig. Ltd	Kano	Trucks, buses	5,000
8	PAN Nig. Ltd.	Kaduna	Cars, buses	25,000
9	Proforce Ltd		Armoured vans, jeeps	420
10	Steyr Nig. Ltd	Bauchi	Trucks, buses	5,000
11	VON Nigeria Ltd.	Lagos	Cars, Light commercial vehicles, SUVs, buses	39,000
12	Zahan Auto Co	Lagos	pickups	5,000
			Total:	96,000

Source: National sources, Fitch Solutions

Our 2018 estimate for vehicle production in Nigeria is 3,524 units. The table above illustrates a severely underutilized capacity by existing manufacturers where production in Nigeria could be ramped up to full capacity without significant amounts of investments in comparison to low capacity countries in the rest of Sub-Saharan Africa.

Industry Risk/Reward Index

Sub-Saharan Africa Autos Production Risk/Reward Index

Key View: The SSA region has some good fundamentals, such as low labour cost and supportive automotive policies, which present the possibility of the region becoming a strong automotive manufacturing region. However, the region continues to disappoint, failing to deliver sufficient rewards to compensate for the extensive risks present in the region and coming in last among all the regions that we cover. The top performing country, South Africa, also faces an uphill battle due to its elevated economic and political risks. That said, it boasts one of the highest scores globally for the industry policy category, which indicates that the government is attempting to incentivise automakers to attract more investment.

South Africa Dwarfs Other Vehicle Producing Countries In The Region

Sub-Saharan Africa - Autos Production Risk/Reward Heat Map
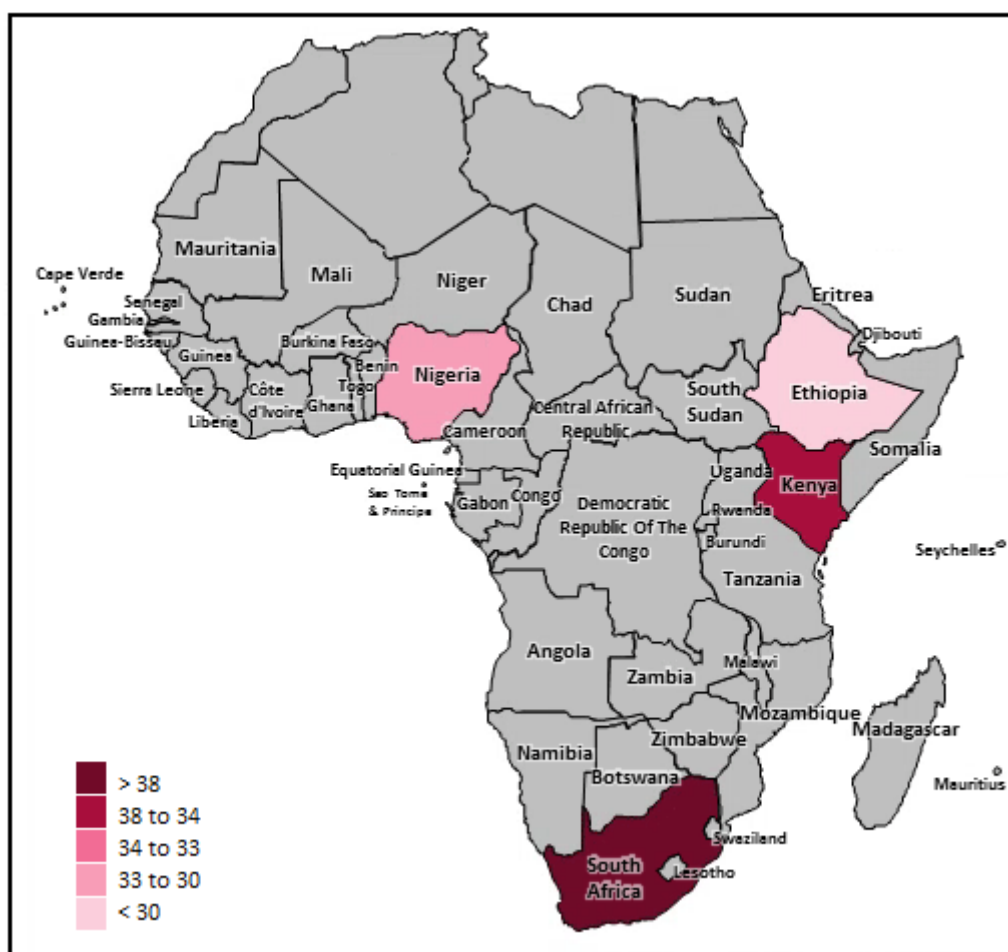
Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Production Risk/Reward Index

Main Regional Features And Latest Updates

- Sub-Saharan Africa (SSA) continues to be the worst performing region globally in our Autos Production Risk/Reward Index (RRI), below the Middle East and North Africa region, with a score of just 33.9 out of a possible 100, up slightly from its previous score of 32.9. Despite the region's slight improvement, it continues to significantly underperform the global average of 50.0.
- The SSA region struggles to achieve any meaningful scores under both the Risks and Rewards pillars of our RRI. Which indicates that the region has very few rewards to compensate automakers for taking on the extensive risks present in the region.

- That said, there are a couple categories under the Rewards pillar where the SSA region outperforms the global average, namely the vehicle production growth, competitive landscape and average wages/labour costs (scoring 65.2, 52.0 and 54.0 respectively out of a possible 100), which indicates that the region has potential to become a stronger vehicle production region.
- Under the Risks pillar of our RRI, the region only outperforms the global average in the strength of industry policy category with a score of 61.6 out of a possible 100, largely due to South Africa and Kenya (both scoring 81.3 out of a possible 100) having supportive industry policies for automotive production. Other than this, the region struggles to break through the 20 out of a possible 100 mark in all other categories under the Risks pillar.
- Specifically, the SSA region scores poorly under the logistics risk and long-term political risk index categories, for which it only manages to score 16.5 and 15.6 respectively. This indicates the significant challenges that automakers will face sourcing and transporting material and finished products.

South Africa Is The Only SSA Country In The High Rewards, Low Risks Region
Sub-Saharan Africa - Autos Production Risk/Reward Index

Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Production Risk/Reward Index
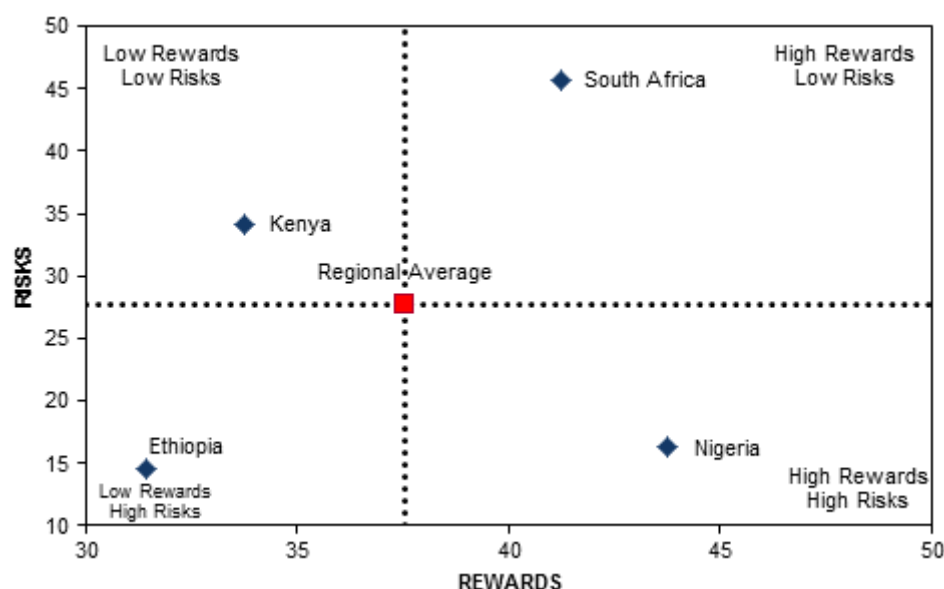
SSA: Failure To Launch

The SSA region has some good fundamentals, such as low labour cost and supportive automotive policies, which present the possibility of the region becoming a strong automotive manufacturing region. However, the current rewards are insufficient to adequately compensate automakers for the extensive risks present in the region. South Africa is the only automotive manufacturing country that we cover that manages to fall in the high rewards/low risks section, relative to the SSA region (*see chart above*). That said, it also faces high economic risks which makes automakers wary of investing in the country, despite increased incentives offered by the South African government.

SSA Fails To Deliver

SSA & Global - Risks & Rewards Categories

Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Production Risk/Reward Index

South Africa Remains The Dominant Autos Manufacturing Country

South Africa remains the most attractive vehicle production location in the SSA region due largely to the country's well developed local production industry and lower Industry Risks when compared to its regional peers. South Africa's biggest attraction lies in the strength of its automotive industry policy, scoring 81.3 on our RRI, which has attracted investment by major original equipment manufacturers (*see 'Autos Investment Round-Up: South Africa Remains Investment Haven In SSA', July 4 2018*).

In addition, South Africa performs strongly in terms of Industry Rewards (56.0) when compared to the regional average (46.9), showing the strength of its well-developed and less concentrated autos manufacturing industry as well as competitive labour costs. Furthermore, following a period of worsening Country Risks scores, its Country Risks pillar has stabilised at 29.9 out of a possible 100. Our Country Risk team believes that the growth outlook for the South African economy will brighten modestly in 2019, as headwinds from the agricultural sector ease, but will nevertheless remain well below South Africa's long-term average.
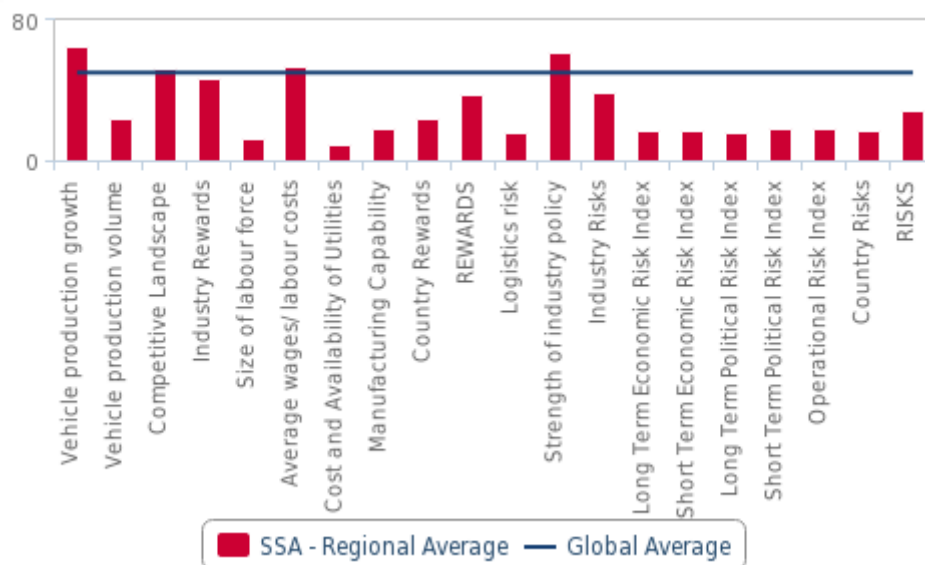
South Africa Leads The Region

South Africa & SSA - Risks & Rewards

Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Production Risk/Reward Index

Ethiopia's Risks Are Overwhelming

Ethiopia comes last in our Autos Production RRI with an overall score of 25.4 out of a possible 100. This weakness is largely attributed to the overwhelming risks present in the Ethiopian market which significantly reduces the attractiveness of its automotive production sector. Although Ethiopia only manages to score 15.3 for its Risks pillar, it performs somewhat better under the Rewards pillar, scoring 32.1. However, it continues to score below the regional average due to the nascent nature of its automotive production industry and the limited number of automakers currently in the country. On a more positive note, due to the nascent nature of its automotive production sector it manages to score 80.4 under the vehicle production growth category in our RRI, which is significantly higher than both the global average of 50.0 and the regional average of 65.2.

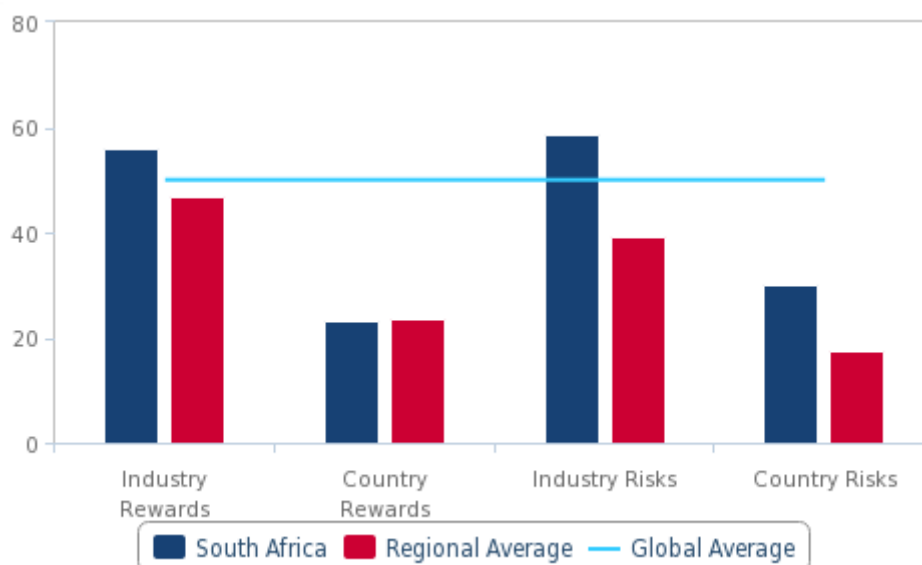| SSA AUTOS PRODUCTION RISK/REWARD INDEX									
	Industry Rewards	Country Rewards	REWARDS	Industry Risks	Country Risks	RISKS	RRI	Regional Rank	Global Rank
South Africa	56.0	23.2	42.9	58.5	29.9	44.2	43.4	1	39
Kenya	38.4	23.2	32.3	52.2	18.5	35.3	33.5	2	48
Nigeria	58.3	20.1	43.0	21.0	15.8	18.4	33.2	3	49
Ethiopia	35.1	27.7	32.1	24.6	6.0	15.3	25.4	4	54
Global Average	50.0	50.0	50.0	50.0	50.0	50.0	50.0	~	~
Regional Average	46.9	23.5	37.6	39.1	17.5	28.3	33.9	~	~

Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Production Risk/Reward Index

SSA AUTOS PRODUCTION REWARDS

	Vehicle Production Growth	Vehicle Production Volume	Competitive Landscape	Industry Rewards	REWARDS
South Africa	23.2	58.9	85.7	56.0	42.9
Kenya	66.1	10.7	38.4	38.4	32.3
Nigeria	91.1	8.9	75.0	58.3	43.0
Ethiopia	80.4	16.1	8.9	35.1	32.1
Global Average	50.0	50.0	50.0	50.0	50.0
Regional Average	65.2	23.7	52.0	46.9	37.6

Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Production Risk/Reward Index

SSA AUTOS PRODUCTION REWARDS

	Size Of Labour Force	Average Wages/ Labour Costs	Cost And Availability Of Utilities	Manufacturing Capability	Country Rewards	REWARDS
South Africa	5.4	28.6	14.3	44.6	23.2	42.9
Kenya	16.1	58.9	7.1	10.7	23.2	32.3
Nigeria	0.0	60.7	3.6	16.1	20.1	43.0
Ethiopia	28.6	67.9	10.7	3.6	27.7	32.1
Global Average	50.0	50.0	50.0	50.0	50.0	50.0
Regional Average	12.5	54.0	8.9	18.8	23.5	37.6

Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Production Risk/Reward Index

SSA AUTOS PRODUCTION RISKS

	Logistics Risk	Strength Of Industry Policy	Industry Risks	RISKS
South Africa	35.7	81.3	58.5	44.2
Kenya	23.21	81.3	52.2	35.3
Nigeria	0.0	42.0	21.0	18.4
Ethiopia	7.1	42.0	24.6	15.3
Global Average	50.0	50.0	50.0	50.0
Regional Average	16.5	61.6	39.1	28.3

Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Production Risk/Reward Index

| SSA AUTOS PRODUCTION RISKS							
	Long-Term Economic Risk Index	Short-Term Economic Risk Index	Long-Term Political Risk Index	Short-Term Political Risk Index	Operational Risk Index	Country Risks	RISKS
South Africa	28.6	15.2	33.9	41.4	33.9	29.9	44.2
Kenya	10.7	17.9	23.2	13.4	19.6	18.5	35.3
Nigeria	25.0	32.1	5.4	7.1	10.7	15.8	18.4
Ethiopia	5.4	3.6	0.0	3.6	8.9	6.0	15.3
Global Average	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Regional Average	17.4	17.2	15.6	18.3	18.3	17.5	28.3

Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Production Risk/Reward Index

Please Note: *Our Risk/Reward Indices are updated frequently; as a result, scores in this section may not match scores in the rest of the report.*

SSA Autos Sales Risk/Reward Index

Key View: *Countries in the SSA region struggle to make it into the top 50 markets globally, with the closest being South Africa in 69th place. The region's highest scoring countries are South Africa, Mauritius and Botswana, holding global rankings of 69th, 71st and 79th position respectively out of the 125 countries we cover. In the most recent update of our Autos Sales RRI, South Africa comes in at first place, up from second place previously, out of 19 SSA countries we cover in terms of its attractiveness as a vehicle retailing destination. Furthermore, climbing the ranks of our RRI, Ghana is proving to be an attractive automotive market in the region and managed to take fourth place in our most recent update.*

The SSA Region Has Potential, But Risks Prevail
Sub-Saharan Africa - Autos Sales Risk/Reward Heat Map
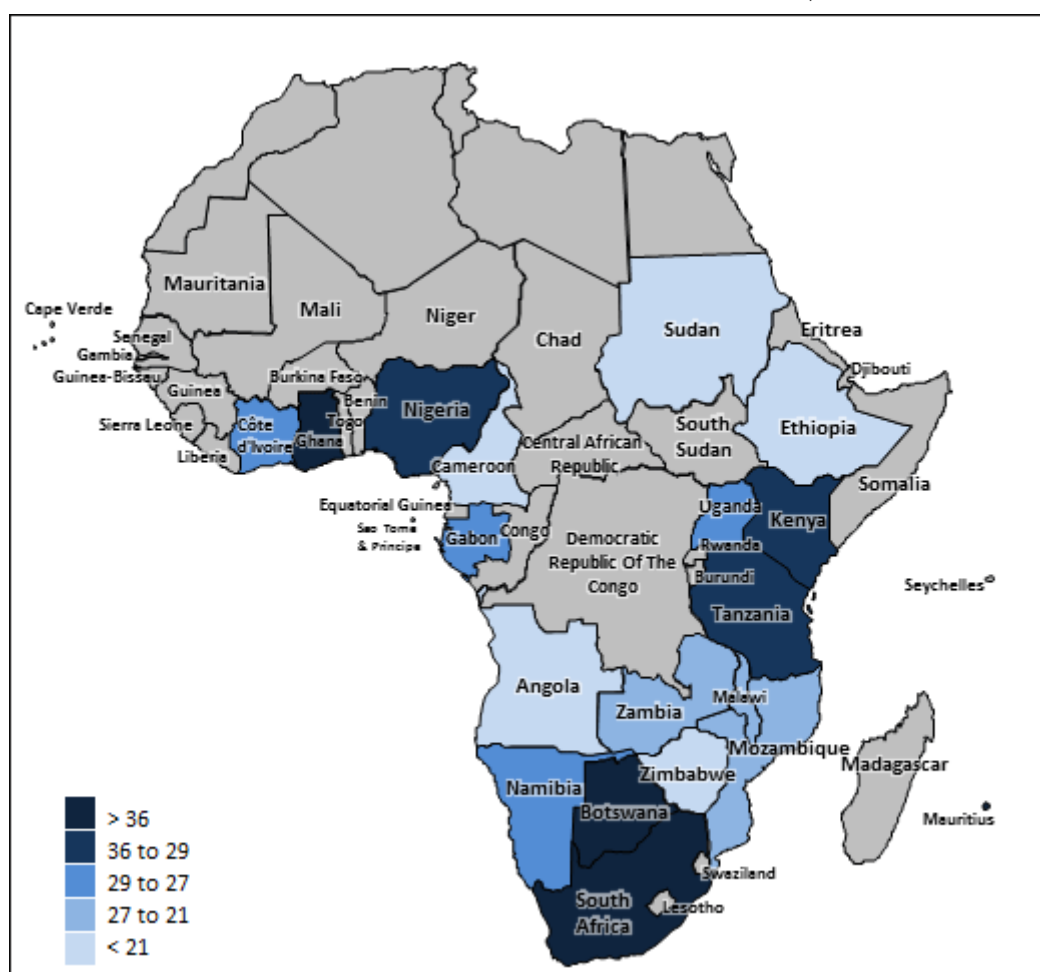
Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Sales Risk/Reward Index

Main Regional Features And Latest Updates

- This quarter, the Sub-Saharan Africa (SSA) region continues to underperform all other regions in our Autos Sales Risk/Reward Index (RRI) globally, with a regional average score of 28.9 out of a possible 100, which is a slight improvement on its previous score of 28.4. Although the SSA region remains an unattractive region, its slight improvement indicates that its slowly becoming more attractive.

- Although the SSA region has a good balance between Risks (30.2) and Rewards (28.1), its scores remain far below the global average of 50.0. In particular, under its Rewards pillar the region struggles with a very low vehicle ownership rate (scoring 17.7 out of a possible 100) as well as a severely limited spending population (scoring 11.3 out of a possible 100) which is also reflected

by its low GDP per capital score of 19.1.

- The SSA region performs marginally better under the Risk pillar of our Autos Sales RRI; however, the region continues to suffer from very high long- and short-term economic risks (scarring 23.7 and 24.6 respectively). This coupled with its unsupportive regulatory environment (24.5) makes the region a very risky operating environment (scarring 23.8) for automakers looking to invest in emerging and frontier markets.

- On a more positive note, the SSA region scores well under the driving age population and vehicle sales growth categories (scoring 54.2 and 56.7 respectively) which highlights the sizable growth opportunity in the region, albeit over a much longer term. Furthermore, the region scores well under the new sales as % of fleet category with a score of 45.4, which indicates that the market is relatively untapped and that the market for new vehicles is expanding.

- Countries in SSA struggle to make it into the top 50 markets globally, with the closest being South Africa in 69th place. The region's highest scoring countries are South Africa, Mauritius and Botswana, holding global rankings of 69th, 71st and 79th position respectively out of the 125 countries we cover.

- South Africa regained its position as the most attractive market in SSA on our Autos Sales RRI despite its extensive short-term economic risks, scoring 27.0 out of a possible 100. South Africa remains the most developed automotive market in SSA which is reflected in its Rewards score of 50.3; however, its overall performance is being hindered by its lacklustre performance under the Risks pillar of our RRI (scoring 44.6 out of a possible 100).

- The SSA region also contains the second lowest scoring country, namely Zimbabwe, which ranks 124th out of the 125 countries in our RRI. Zimbabwe only manages an overall score of 13.6 out of a possible 100, scoring 16.1 for its Rewards pillar and 9.9 for its Risks pillar.

The SSA Region Remains Tilted Towards High Risk Section
Sub-Saharan Africa - Autos Sales Risk/Reward Index
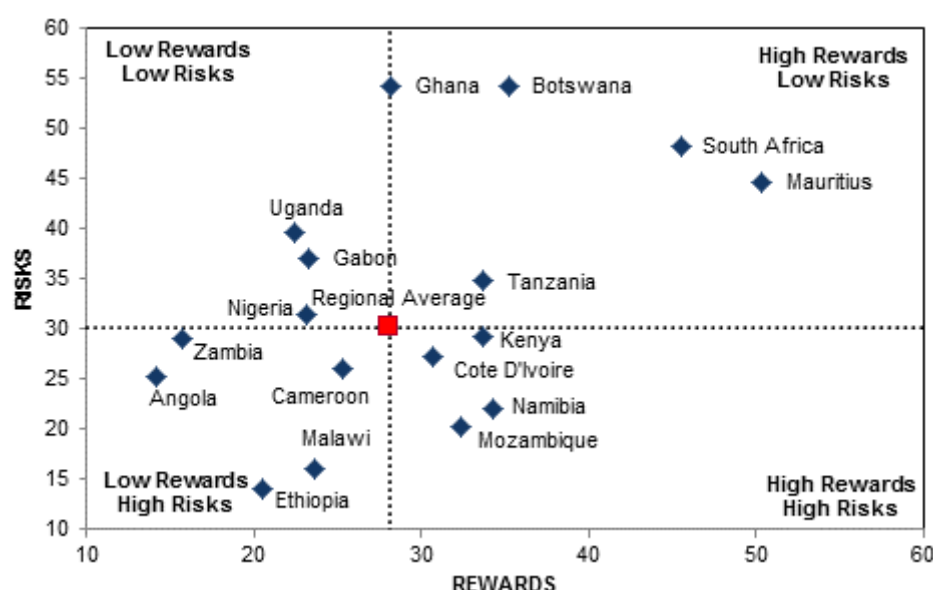
Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Sales Risk/Reward Index

Southern Africa Dominates

Southern African countries (South Africa -first, Mauritius - second and Botswana - third) take the top three positions in our Autos Sales RRI; however, they struggle to break through into the top 50 countries globally as South Africa (the top scoring country in the SSA region) only manages to achieve 69th position. The strengths of these countries lie in their low risk business environments, developed autos markets, relatively high consumer purchasing power and good quality of road infrastructure (*see 'Robust Consumer Spending To Support Car Sales Expansion', December 14 2016*). Mauritius and Botswana further benefit from stable long-term political risk profiles, whereas South Africa has a very risky political environment. Furthermore, all three of these countries

also benefit from relatively low long-term economic risk profiles.

South Africa Takes First Place

In the most recent update of our Autos Sales Risk/Reward Index (RRI), South Africa's overall score has remained largely unchanged, coming in at 48.0 out of a possible 100, compared to 48.1 previously. As a result, South Africa now comes in first place, up from second place previously, out of 19 Sub-Saharan African (SSA) countries we cover in terms of its attractiveness as a vehicle retailing destination. The country is still notable for being one of the region's largest vehicle sales market with a good quality transport network. That said, affordability constraints faced by the local population and uncertain short-term economic outlook act as a drag on the country's appeal.

Most notably, South Africa struggles under the vehicle sales growth category of our Autos Sales RRI with a score of only 16.1 out of a possible 100. This is due to consumer disposable incomes expected to remain under pressure on the back of rising inflation and an increase in borrowing costs in 2019, which will dampen growth in new car sales. Furthermore, high unemployment levels will create long-term weakness in the South African consumer market and coupled with high borrowing cost will hinder the ability of consumers to afford new vehicles, which will therefore not bode well for growth in the new autos market (*see 'Rising Living Costs And High Unemployment To Dampen South Africa Car Sales', December 19 2018*).

South African Vehicle Sales To Remain Under Pressure
South Africa - New Vehicle Sales, Units % chg y-o-y
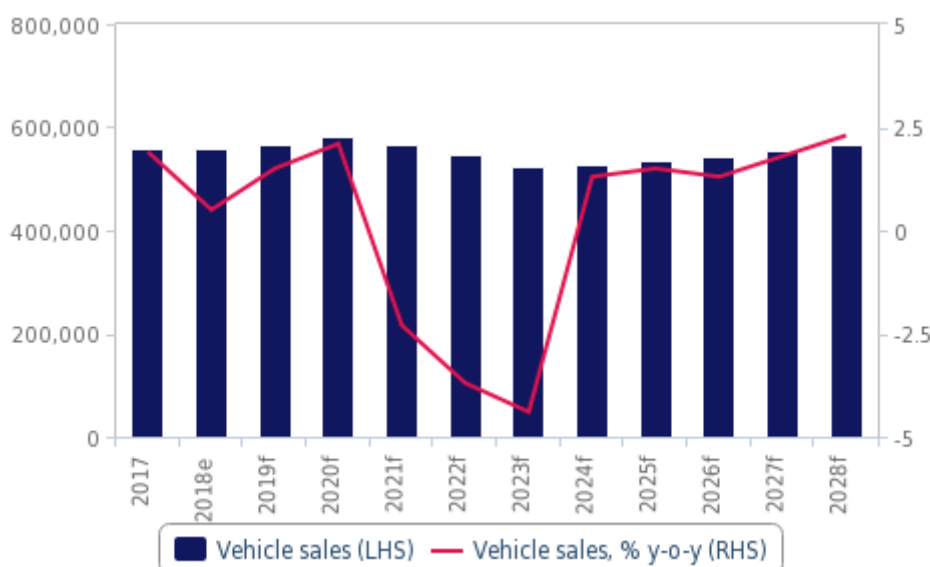
e/f = Fitch Solutions estimate/forecast. Source: NAAMSA, Fitch Solutions

Tanzania And Kenya Are The Bright Spots In The EAC

With total scores of 34.1 and 31.9 for Tanzania and Kenya respectively in our RRI, these two countries are the outperformers in the East African Community (EAC) sub-region. However, these countries' rankings are slipping due to weaker Country Rewards scores following our category change where quality of road network was replaced with quality and extent of transport network. Both countries benefit from stable long-term economic and political risk profiles and ample growth opportunities for automakers, as measured by our five-year average for vehicle sales volumes (*see 'Tanzania: New Dominant Automotive Market In East Africa', February 27 2018*). Lagging behind in the EAC are Uganda and Ethiopia, with poor scores explained by their undeveloped vehicle markets, high barriers to market entry, low consumer purchasing power and larger rural populations.

East Africa Remains An Attractive Region

Sub-Region Average Scores - Risk/Reward Index Scores
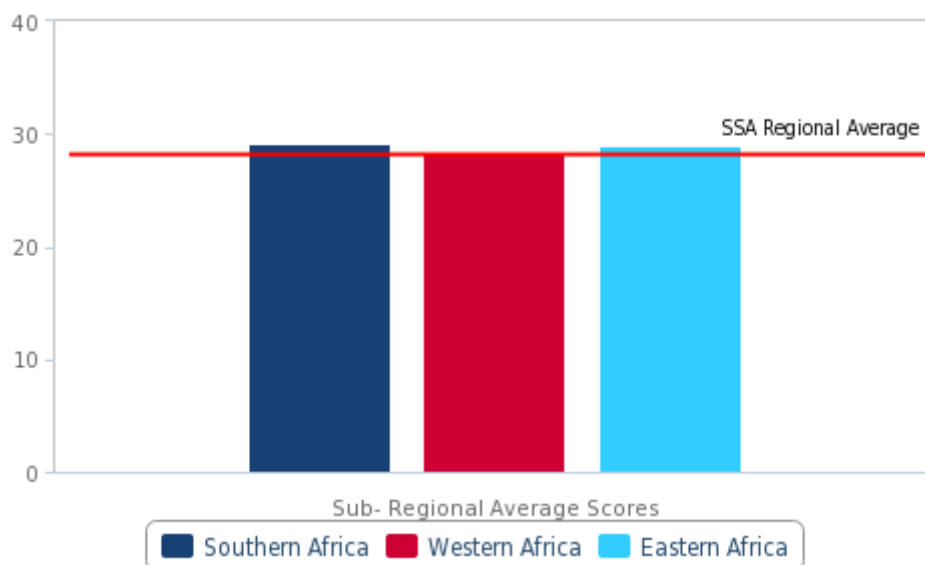
Note: Scores out of 100; higher score = lower risk. Source: Fitch Solutions Autos Sales Risk/Reward Index

Ghana Is On The Rise

With an RRI score of 38.6, Ghana ranks fourth in the SSA region and is the fourth lowest risk automotive market in the region and the lowest in the Economic Community of West African States sub-region. The country's strengths lie in its overall low risk environment, which outperforms the global average of 50.0, especially in terms of political risk. Furthermore, the country boasts a low import duty on vehicles of an estimated 31%, as well as a favourable regulatory environment, which will make it easier for automakers to operate in this market. Ghana also boasts a large driving-age population, scoring 62.9 out of a possible 100, which elevates the country's reward potential in the long term and highlights the growth potential for automakers entering its market.

We believe that Ghana's political stability is the linchpin for the future of its domestic automotive production industry. In our Autos Sales RRI, under the short-term political risk index and long-term political risk index categories, Ghana scores by far the best among the West African countries that we cover and comes in at second place in the wider SSA region, This highlights how stable the country's political outlook is for the next two years. Under the long-term political risk index category in our RRI, Ghana scores 70.2 out of a possible 100, compared to the West Africa regional average of 17.4 (excluding Ghana), which indicates the stability of the country's political environment over the next five-to-10 years, which gives Ghana a distinct advantage when it comes to its operating environment for automakers compared to its regional peers (*see 'Ghana's Political Stability Is Attracting Vehicle Production', October 18 2018*).

Ghana Far Outperforming Its Regional Peers

West Africa - Long-Term Political Risk Index Scores
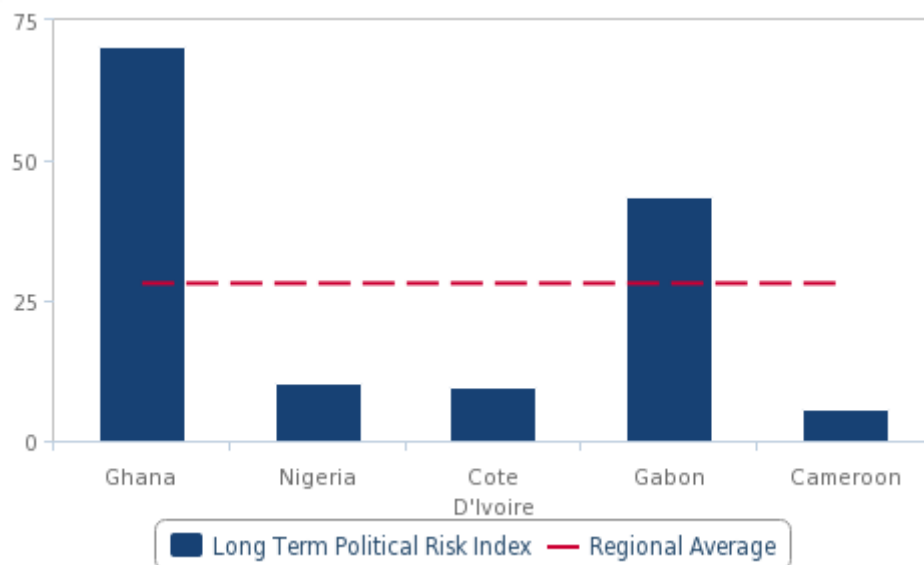
Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Sales Risk/Reward Index

SSA AUTOS SALES RISK/REWARD INDEX

	Industry Rewards	Country Rewards	REWARDS	Industry Risks	Country Risks	RISKS	RRI	Regional Rank	Global Rank
South Africa	48.8	52.6	50.3	47.3	41.9	44.6	48.0	1	69
Mauritius	50.0	38.7	45.5	34.9	61.6	48.3	46.6	2	71
Botswana	41.8	25.5	35.3	53.5	55.1	54.3	42.9	3	79
Ghana	27.0	30.0	28.2	61.3	47.1	54.2	38.6	4	89
Tanzania	41.0	22.7	33.7	38.3	31.2	34.8	34.1	5	98
Kenya	36.2	30.0	33.7	30.4	28.2	29.3	31.9	6	102
Nigeria	37.0	30.2	34.3	17.5	26.5	22.0	29.3	7	104
Cote D'Ivoire	29.6	32.3	30.7	26.1	28.5	27.3	29.3	8	105
Namibia	19.2	27.4	22.5	47.8	31.3	39.6	29.3	9	106
Uganda	28.8	14.8	23.2	48.5	25.7	37.1	28.8	10	108
Gabon	31.4	34.0	32.4	10.8	29.8	20.3	27.6	11	111
Zambia	28.0	16.0	23.2	45.7	17.2	31.4	26.5	12	113
Mozambique	30.6	17.4	25.4	40.1	11.9	26.0	25.6	13	116
Malawi	18.5	11.5	15.7	36.6	21.6	29.1	21.1	14	118
Cameroon	24.2	22.9	23.7	12.9	19.4	16.1	20.7	15	119
Ethiopia	25.8	23.4	24.8	6.5	12.4	9.4	18.7	16	120
Angola	7.9	23.7	14.2	29.8	20.6	25.2	18.6	17	121
Sudan	20.3	21.0	20.5	25.0	3.2	14.1	18.0	18	122
Zimbabwe	15.7	16.8	16.1	13.7	6.0	9.9	13.6	19	124
Global Average	50.0	50.0	50.0	50.0	50.0	50.0	50.0	~	~
Regional Average	29.6	25.8	28.1	33.0	27.3	30.2	28.9	~	~

Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Sales Risk/Reward Index

SSA AUTOS SALES INDUSTRY REWARDS

	Vehicle Sales Volume	Vehicle Ownership	Vehicle Sales Growth	Competitive Landscape	Industry Rewards	REWARDS
South Africa	80.6	38.7	16.1	59.7	48.8	50.3
Mauritius	10.5	53.2	70.2	66.1	50.0	45.5
Botswana	41.9	48.8	68.5	8.1	41.8	35.3
Ghana	38.7	10.5	39.5	19.4	27.0	28.2
Tanzania	55.6	8.5	87.1	12.9	41.0	33.7
Kenya	51.6	8.5	74.2	10.5	36.2	33.7
Nigeria	21.0	17.3	100.0	9.7	37.0	34.3
Cote D'Ivoire	12.9	10.5	83.1	12.1	29.6	30.7
Namibia	14.5	27.4	18.5	16.1	19.2	22.5
Uganda	25.0	0.8	78.2	11.3	28.8	23.2
Gabon	6.5	48.8	64.5	5.6	31.4	32.4
Zambia	34.7	3.2	49.2	25.0	28.0	23.2
Mozambique	28.2	6.5	55.6	32.3	30.6	25.4
Malawi	21.8	2.4	36.3	13.7	18.5	15.7
Cameroon	7.3	4.0	80.6	4.8	24.2	23.7
Ethiopia	3.2	0.0	92.7	7.3	25.8	24.8
Angola	2.4	10.5	0.8	17.7	7.9	14.2
Sudan	4.8	17.3	52.4	6.5	20.3	20.5
Zimbabwe	18.5	18.5	10.5	15.3	15.7	16.1
Global Average	50.0	50.0	50.0	50.0	50.0	50.0
Regional Average	25.3	17.7	56.7	18.6	29.6	28.1

Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Sales Risk/Reward Index

SSA AUTOS SALES COUNTRY REWARDS							
	Driving-Age Population	GDP Per Capita, USD	Urban/Rural Split	Spending Population, % Of Total	Quality And Extent Of Transport Network	Country Rewards	REWARDS
South Africa	80.6	41.1	46.8	25.0	69.4	52.6	50.3
Mauritius	7.3	57.3	13.7	59.7	55.6	38.7	45.5
Botswana	11.3	46.0	33.9	22.6	13.7	25.5	35.3
Ghana	62.9	16.9	29.8	12.1	28.2	30.0	28.2
Tanzania	75.0	4.0	9.7	3.2	21.8	22.7	33.7
Kenya	73.4	12.9	4.0	10.5	49.2	30.0	33.7
Nigeria	92.7	17.7	23.4	4.8	12.1	30.2	34.3
Cote D'Ivoire	57.3	16.1	31.5	6.5	50.0	32.3	30.7
Namibia	12.1	37.1	22.6	13.7	51.6	27.4	22.5
Uganda	66.9	2.4	0.8	0.0	4.0	14.8	23.2
Gabon	8.9	46.8	83.1	14.5	16.9	34.0	32.4
Zambia	46.8	8.1	17.7	1.6	5.6	16.0	23.2
Mozambique	60.5	0.8	7.3	2.4	16.1	17.4	25.4
Malawi	51.6	0.0	0.0	4.0	1.6	11.5	15.7
Cameroon	56.5	12.1	29.0	7.3	9.7	22.9	23.7
Ethiopia	86.3	3.2	2.4	9.7	15.3	23.4	24.8
Angola	59.7	25.8	21.0	0.8	11.3	23.7	14.2
Sudan	70.2	4.8	8.9	8.1	12.9	21.0	20.5
Zimbabwe	49.2	10.5	6.5	8.9	8.9	16.8	16.1
Global Average	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Regional Average	54.2	19.1	20.6	11.3	23.9	25.8	28.1

Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Sales Risk/Reward Index

SSA AUTOS SALES INDUSTRY RISKS

	Regulatory Environment	New Sales As % Of Fleet	Tax Rates	Industry Risks	RISKS
South Africa	55.6	51.6	34.7	47.3	44.6
Mauritius	57.3	20.2	27.4	34.9	48.3
Botswana	24.2	92.7	43.5	53.5	54.3
Ghana	66.1	43.5	74.2	61.3	54.2
Tanzania	25.8	59.7	29.4	38.3	38.4
Kenya	21.0	56.5	13.7	30.4	29.3
Nigeria	8.9	4.8	38.7	17.5	22.0
Cote D'Ivoire	26.6	18.5	33.1	26.1	27.3
Namibia	46.0	65.3	32.3	47.8	39.6
Uganda	22.6	93.5	29.4	48.5	37.1
Gabon	11.3	9.7	11.3	10.8	20.3
Zambia	25.0	96.0	16.1	45.7	31.4
Mozambique	46.8	32.3	41.1	40.1	26.0
Malawi	1.6	62.9	45.2	36.6	29.1
Cameroon	8.1	12.9	17.7	12.9	16.1
Ethiopia	3.2	7.3	8.9	6.5	9.4
Angola	10.5	64.5	14.5	29.8	25.2
Sudan	0.8	58.9	15.3	25.0	14.1
Zimbabwe	4.0	12.1	25.0	13.7	9.9
Global Average	50.0	50.0	50.0	50.0	50.0
Regional Average	24.5	45.4	29.0	33.0	30.2

Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Sales Risk/Reward Index

| SSA AUTOS SALES COUNTRY RISKS							
	Long-Term Economic Risk Index	Short-Term Economic Risk Index	Long-Term Political Risk Index	Short-Term Political Risk Index	Operational Risk Index	Country Risks	RISKS
South Africa	49.2	27.0	39.5	48.4	45.2	41.9	44.6
Mauritius	46.8	41.9	81.5	77.4	60.5	61.6	48.3
Botswana	31.5	56.0	68.5	75.0	44.4	55.1	54.3
Ghana	26.6	34.7	70.2	65.3	38.7	47.1	54.2
Tanzania	21.0	24.2	46.8	44.8	19.4	31.2	34.8
Kenya	29.0	28.6	33.9	19.0	30.6	28.2	29.3
Nigeria	41.9	48.4	10.5	12.9	18.5	26.5	22.0
Cote D'Ivoire	43.5	52.0	9.7	14.5	22.6	28.5	27.3
Namibia	8.9	8.1	47.6	51.6	40.3	31.3	39.6
Uganda	28.2	33.9	19.0	29.8	17.7	25.7	37.1
Gabon	33.9	20.6	43.5	37.9	12.9	29.8	20.3
Zambia	11.7	9.7	15.3	22.6	26.6	17.2	31.4
Mozambique	4.8	4.8	14.5	21.8	13.7	11.9	26.0
Malawi	10.5	11.3	33.1	36.3	16.9	21.6	29.1
Cameroon	34.7	30.6	5.6	15.3	10.5	19.4	16.1
Ethiopia	18.5	13.7	4.0	10.5	15.3	12.4	9.4
Angola	6.5	18.5	24.2	54.0	0.0	20.6	25.2
Sudan	3.2	0.8	2.4	4.0	5.6	3.2	14.1
Zimbabwe	0.8	3.2	7.3	6.9	12.1	6.0	9.9
Global Average	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Regional Average	23.7	24.6	30.4	34.1	23.8	27.3	30.2

Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Sales Risk/Reward Index

Please Note: *Our Risk/Reward Indices are updated frequently; as a result, scores in this section may not match scores in the rest of the report.*

Nigeria Autos Production Risk/Reward Index

Key View: *Nigeria's overall Autos Production Risk/Reward Index has slightly increased from 32.7 to the current 32.8 out of a possible 100, which places it below the Sub-Saharan Africa's (SSA) regional average of 33.6 out of a possible 100. Nigeria's overall attractiveness benefits from it having a favourable competitive landscape, a strong vehicle production growth outlook and from having low cost labour. However, the country struggles to perform under the Risk pillar of our RRI, as its boasts significant political, economic and operational risks.*

Vehicle Production Growth & Competitive Landscape Outperforms The SSA Region
Nigeria & SSA Region - Autos Production Risk/Reward Index By Component
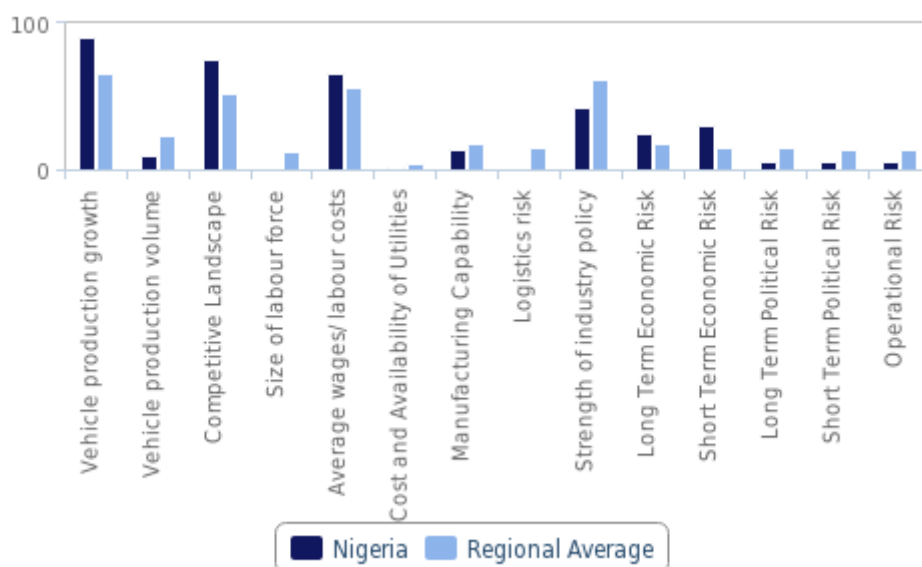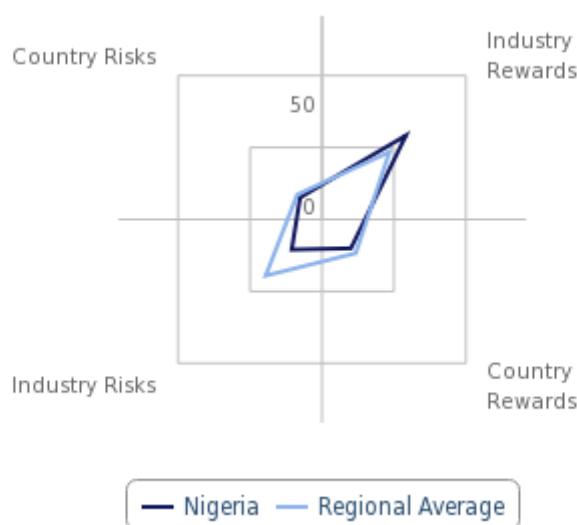

Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Production Risk/Reward Index

Nigeria Autos Production RRI - Global And Regional Rankings

- Regional rank (out of 4): 3rd
- Global rank (out of 57): 48th

Industry Risks Outperforms Regional Average

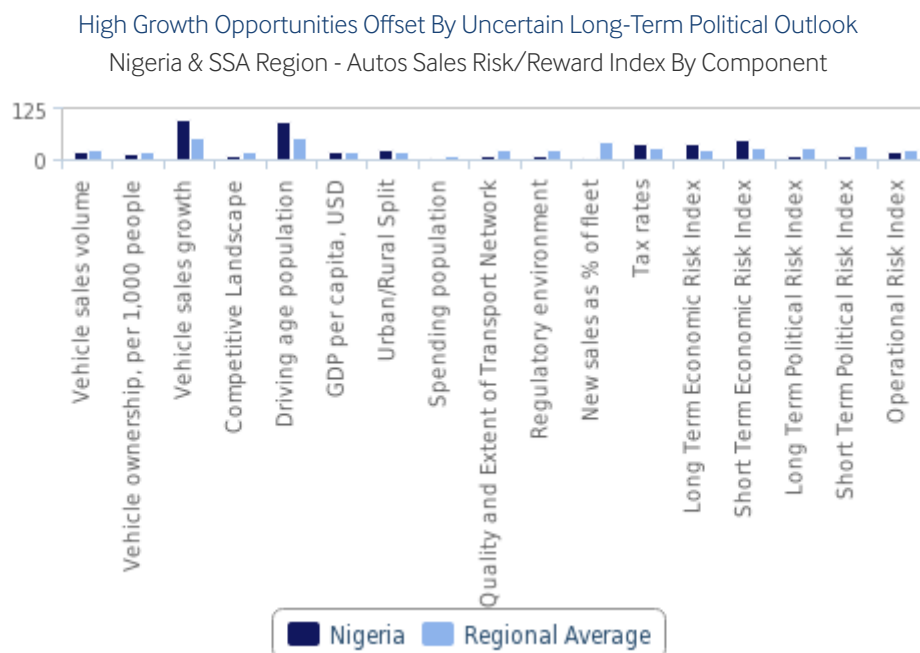Nigeria & SSA Region - Autos Production Risk/Reward Scores

Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Production Risk/Reward Index

Key Features And Latest Updates

- This quarter, Nigeria's overall score on our Autos Production Risk/Reward Index (RRI) slightly improved to 32.8 out of a possible 100, up from 32,7 previously. That's said, Nigeria continues to underperform the SSA region's score of 33.6 out of a possible 100. The country ranks below Kenya (33.9) and above Ethiopia (24.7).

- Nigeria ranks 3rd in the SSA region and 48th on a global scale, which highlights the uncompetitive nature of its automotive manufacturing industry.

- Nigeria performs best under the vehicle production growth category with a score of 92.9 compared to the regional average of 67.0. This is due to the strong growth in production that we forecast to grow by an average of 17.5% over the 2019-2028 forecast period.

- This quarter, Nigeria's score under the short term political risk category now sits at 3.6 out of a possible 100. This was a result of the relatively peaceful elections, which led to a relatively peaceful transition of power.

- Nigeria severely underperforms under the size of labour force category in our RRI, with 0.0 out of a possible 100. This is a reflection of the tough businesses conditions, and costs related to upskilling the labour force.

- Under the Risks pillar of our RRI, Nigeria underperforms on both a global and a regional scale with an overall Risks score of 16.3, compared to the regional average of 27.7 and the global average of 50.0. This underperformance is due to tough economic and political conditions that have persisted in recent years.

Nigeria Autos Sales Risk/Reward Index

Key View: *Our recent Autos Sales Risk/Reward Index overall score for Nigeria decreased slightly from 28.9 to 28.5 out of a possible 100, driven by improvements in both risks and rewards. Nigeria outperforms the regional average under the vehicle sales growth and driving age population categories, which helps it achieve a regional out performing Rewards score. That said, the country does boast significant political risks, which will continue to drag on the attractiveness of the country as an investment destination for automakers.*

High Growth Opportunities Offset By Uncertain Long-Term Political Outlook

Nigeria & SSA Region - Autos Sales Risk/Reward Index By Component

Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Sales Risk/Reward Index

Nigeria Autos Sales RRI - Global And Regional Ranks

- Regional rank (out of 19): 9th
- Global rank (out of 125): 108th

Nigeria Outperforms The Region In Industry Risk

Nigeria & SSA Region - Risk/Reward Scores
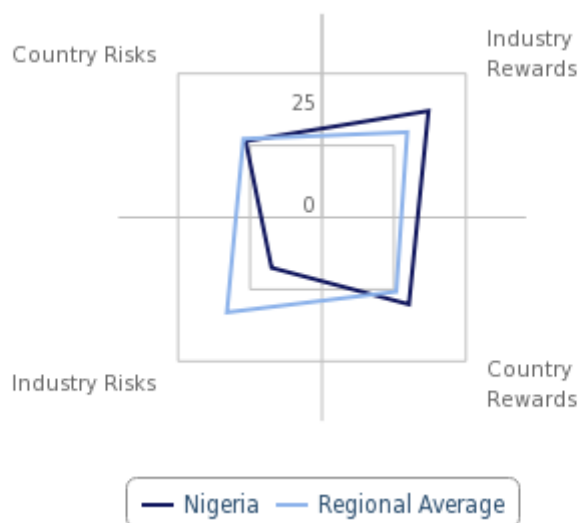
Note: Scores out of 100; higher score = more attractive market. Source: Fitch Solutions Autos Sales Risk/Reward Index

Key Features And Latest Updates

- Nigeria's overall score in our Autos Sales Risk/Reward Index (RRI) has remained relatively the same from 28,9 to the current 28.5 out of a possible 100, which places it below the Sub-Saharan Africa's (SSA) regional average of 29.3. Nigeria now ranks 9th in the SSA region and 108th on a global basis, and places below Namibia and above Cote D'Ivoire on a regional scale.
- Nigeria performs best under the Rewards pillar of our RRI with a score of 34.2 out of a possible 100, due to its large driving age population (92.7) and strong vehicles sales growth outlook (98.4). However, Nigeria struggles to maintain this performance under the Risk pillar of our RRI, scoring just 28.5 out of a possible 100.
- Under the Risk pillar of our RRI, Nigeria boasts quite significant political and operational risks, which will make automakers skittish when investing in the country. That said, the country does outperform in the SSA regional under its Economic risk categories, as the increasing oil price offers the country improved fiscal leverage.
- Nigeria's driving age population remains the highest in the SSA region as it has scored 92.7 out of a possible 100 reflected on our RRI's country rewards. Due to the highest population within the SSA region.
- Nigeria vehicle sale growth scored 98.4 out of a possible 100, highlighting the best vehicle sales growth rate in the region, driven by a rebound in sales after a collapse in 2015-2017 in the region.

Company Profile

Peugeot Automobile Nigeria (PAN)

Latest Developments

- In June 2018, it was announced that PSA Peugeot Citroën plans to start assembling cars in Nigeria by 2019, via a joint venture with Chairman of the Dangote Group, Aliko Dangote, and five state governments. The joint venture, Peugeot Automobile Nigeria (PAN) Ltd, is expected to assemble 3,500 units in its first year and ramp up to about 10,000 units annually over the coming years. Peugeot announced it would build its 301 sedan in small volumes at a plant operated by PAN. The vehicles will be produced from semi-assembled kits of parts shipped from Peugeot's plant in Spain. Nigerian production of additional models such as the 308 compact and 508 may follow later according to the French automaker.
- PAN has launched a new pick up destined for the Nigerian market as it expands its product offering. The new pickup, assembled at the Kaduna assembly plant is seen as positive sign for the Nigerian automotive industry. Plans to reintroduce the pick up come 14 years after PAN stopped assembling the previous pick up. The National Automotive Industry Development Plan has been instrumental in influencing the PAN's decision to return to the pickup market - as growth in that segment is expected to soar. PSA ultimately plans to roll out the new model to other African countries as production expands.

Strategy

In June 2018, it was announced that PSA Peugeot Citroën plans to start assembling cars in Nigeria by 2019, via a joint venture with Chairman of the Dangote Group, Aliko Dangote, and five state governments. The joint venture, Peugeot Automobile Nigeria (PAN) Ltd, is expected to assemble 3,500 units in its first year and ramp up to about 10,000 units annually over the coming years. Peugeot announced it would build its 301 sedan in small volumes at a plant operated by PAN. The vehicles will be produced from semi-assembled kits of parts shipped from Peugeot's plant in Spain. Nigerian production of additional models such as the 308 compact and 508 may follow later according to the French automaker.

Regional Overview

SSA Autos Overview

Key View

- Although the total number of projects in our Q418 autos production investment round-up for SSA is limited, Ghana and Tanzania's relative stability has proved to be an attractive proposition for automakers looking to invest in emerging and frontier markets in SSA.
- The IPP Automobile Company is attempting to ramp up Tanzania's domestic automotive manufacturing industry through an internal drive as the country has yet to attract the required level of interest from foreign investors.

In our regular round-up of production investments, we track the latest projects from the production side of the industry and analyse regional trends that we see developing. In doing so, we hope to build a picture of any potential hubs that may be developing, as well as company strategy in terms of production bases and export programmes.

SSA AUTOS PRODUCTION INVESTMENT						
Date Announced	**Country**	**City/ State/ Region**	**Company**	**Value**	**Brief Description**	**Date Onstream**
Oct-18	Ghana	TBC	Sinotruk International	na	The assembly plant will have an initial capacity of 1,500 units annually and will be able to assemble heavy trucks, special trucks and possibly buses.	TBC
Nov-18	Tanzania	Dar es Salaam	IPP Automobile Company/ Youngsan Glonet Corporation	USD10mn	A joint venture to set up an assembly plant in Tanzania to assemble Hyundai, Kia and Daewoo vehicles. The plant is expected to be operational by September 2019 and will have an initial capacity of 1,000 units, which will consist of commercial and construction trucks, buses and sports utility vehicles.	Q4 2019
Nov-18	Ghana	TBC	Nissan	na	Nissan signed a preliminary deal with Ghana to set up an assembly plant in the country.	TBC

na = not available. Source: Fitch Solutions

Stability Has Been The Decisive Factor This Quarter

Although the total number of projects in our Q418 autos production investment round-up for Sub-Saharan Africa (SSA) is limited, Ghana's stability has proved to be an attractive proposition for automakers looking to invest in emerging and frontier markets in SSA. Although we do not expect significant growth in the demand for new vehicles in Ghana, we believe that the growing demand for commercial vehicles (CVs) in the West African region will create a supportive environment for **Sinotruk** and **Nissan**'s proposed operations.

We believe that Ghana's political stability is the linchpin for the future of its domestic automotive production industry. In our Autos Sales Risk/Reward Index (RRI), which measures the attractiveness of a country's automotive sector to investors, under the short-term political risk index and long-term political risk index categories, Ghana scores by far the best among the West African countries that we cover and comes in at second place in the wider SSA region. This highlights how stable the country's political outlook is for

the next two years. Under the long-term political risk index category in our RRI, Ghana scores 71.0 out of a possible 100, compared to the West Africa regional average of 17.4 (excluding Ghana), which indicates the stability of the country's political environment over the next five to 10 years, which gives Ghana a distinct advantage when it comes to its operating environment for automakers compared to its regional peers.

Furthermore, our Operational Risk team believes that Ghana's trade and investment environment positions the country as a regional bright spot. Over the medium term, foreign investor interest will be strengthened by the Ghanaian government's relative policy consistency and support for trade and foreign direct investment through multiple trade agreements, bilateral investment treaties and the development of special economic zones. Businesses operating in the country enjoy many incentives for key areas such as infrastructure, agriculture and manufacturing (*see 'Ghana's Political Stability Is Attracting Vehicle Production', October 18 2018*).

Attempt At A Locally Driven Automotive Production Industry

In November 2018, it was reported that **IPP Automobile Company**, a new subsidiary of **IPP Group**, and **Youngsan Glonet Corporation** signed an agreement to enter into a joint venture to set up an assembly plant in Tanzania to assemble **Hyundai**, **Kia** and **Daewoo** vehicles. The plant will require an investment of USD10mn and will target not only the domestic market but the wider East African region. The plant is expected to be operational by September 2019 and will have an initial capacity of 1,000 units, which will consist of commercial and construction trucks, buses and sports utility vehicles. We believe that the East African market for commercial and passenger vehicles will create a supportive environment for IPP Automobile's planned assembly operations (*see 'Tanzania Attempts To Kick Start Its Domestic Automotive Manufacturing Industry', November 29 2018*).

Tanzania has been trying to start up a domestic automotive industry for years now, but with little success. This first move by the Tanzanian businessman Reginald Mengi, the architect behind the planned vehicle assembly, presents hope for the East African country's future automotive manufacturing industry. However, this is an internal drive as the country has yet to attract the required level of interest from foreign investors, which is key to the long-term viability of its domestic automotive sector.

That said, the robust domestic vehicle market, coupled with its relatively low political risk for which it scores 64.4 out of 100 in our proprietary long-term political risk index (higher score indicates lower risk), outperforming all other East African nations, highlights the country's potential as an automotive manufacturing country. This is especially important as automakers investing in SSA are placing increased importance on political stability, even over the reward potential in the domestic vehicle sales market. This is because automakers need a secure operating base, from which they can target the rest of SSA, which will also afford them the ability to shift their focus out of high risk markets as country-specific challenges arise.

Nigeria Demographic Outlook

Demographic analysis is a key pillar of our macroeconomic and industry forecasting model. Not only is the total population of a country a key variable in consumer demand, but an understanding of the demographic profile is essential to understanding issues ranging from future population trends to productivity growth and government spending requirements.

The accompanying charts detail the population pyramid for 2017, the change in the structure of the population between 2017 and 2050 and the total population between 1990 and 2050. The tables show indicators from all of these charts, in addition to key metrics such as population ratios, the urban/rural split and life expectancy.

Population
(1990-2050)
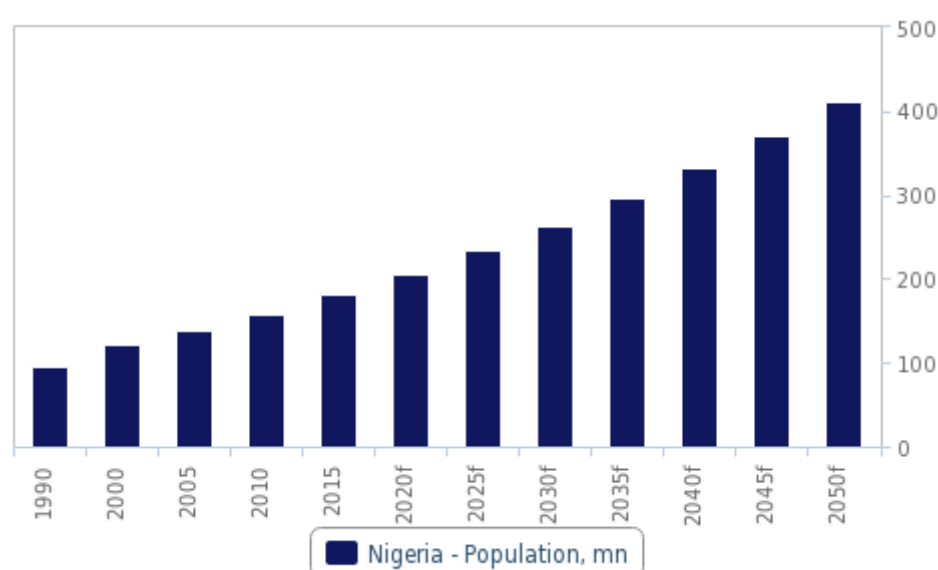
f = Fitch Solutions forecast. Source: World Bank, UN, Fitch Solutions

Nigeria Population Pyramid
2017 (LHS) & 2017 Versus 2050 (RHS)
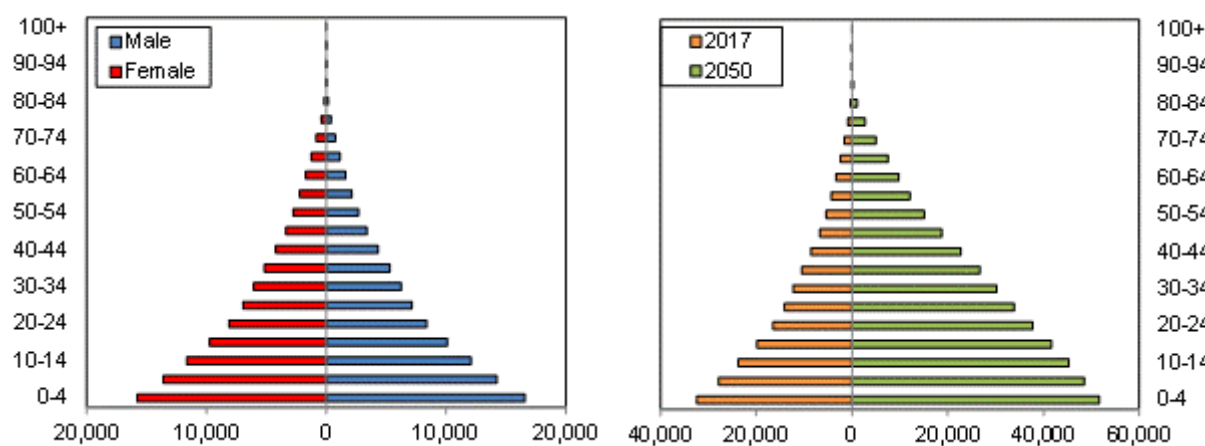
Source: World Bank, UN, Fitch Solutions

POPULATION HEADLINE INDICATORS (NIGERIA 1990-2025)

Indicator	1990	2000	2005	2010	2015	2020f	2025f
Population, total, '000	95,270.0	122,352.0	138,939.5	158,578.3	181,181.7	206,152.7	233,691.9
Population, % y-o-y		2.53	2.62	2.70	2.68	2.58	2.51
Population, total, male, '000	47,928.9	61,684.9	70,160.0	80,204.2	91,768.7	104,524.8	118,562.9
Population, total, female, '000	47,341.1	60,667.1	68,779.5	78,374.1	89,413.0	101,627.9	115,128.9
Population ratio, male/female	1.01	1.02	1.02	1.02	1.03	1.03	1.03

na = not available; f = Fitch Solutions forecast. Source: World Bank, UN, Fitch Solutions

KEY POPULATION RATIOS (NIGERIA 1990-2025)

Indicator	1990	2000	2005	2010	2015	2020f	2025f
Active population, total, '000	49,681.5	65,560.5	74,459.2	84,414.5	96,296.0	110,907.5	128,253.5
Active population, % of total population	52.1	53.6	53.6	53.2	53.1	53.8	54.9
Dependent population, total, '000	45,588.5	56,791.6	64,480.3	74,163.8	84,885.7	95,245.2	105,438.4
Dependent ratio, % of total working age	91.8	86.6	86.6	87.9	88.2	85.9	82.2
Youth population, total, '000	42,845.6	53,347.3	60,672.2	69,822.7	79,928.3	89,595.2	98,881.2
Youth population, % of total working age	86.2	81.4	81.5	82.7	83.0	80.8	77.1
Pensionable population, '000	2,742.9	3,444.2	3,808.1	4,341.0	4,957.5	5,650.0	6,557.2
Pensionable population, % of total working age	5.5	5.3	5.1	5.1	5.1	5.1	5.1

na = not available; f = Fitch Solutions forecast. Source: World Bank, UN, Fitch Solutions

URBAN/RURAL POPULATION & LIFE EXPECTANCY (NIGERIA 1990-2025)

Indicator	1990	2000	2005	2010	2015	2020f	2025f
Urban population, '000	28,276.1	42,627.4	54,289.2	68,949.8	86,561.4	106,638.7	129,131.1
Urban population, % of total	29.7	34.8	39.1	43.5	47.8	51.7	55.3
Rural population, '000	66,993.9	79,724.6	84,650.3	89,628.4	94,620.4	99,514.0	104,560.8
Rural population, % of total	70.3	65.2	60.9	56.5	52.2	48.3	44.7
Life expectancy at birth, male, years	44.7	45.4	47.5	50.1	52.2	54.4	56.4
Life expectancy at birth, female, years	47.2	47.2	49.0	51.6	53.8	56.1	58.4
Life expectancy at birth, average, years	45.9	46.3	48.2	50.8	53.0	55.2	57.4

na = not available; f = Fitch Solutions forecast. Source: World Bank, UN, Fitch Solutions

POPULATION BY AGE GROUP (NIGERIA 1990-2025)

Indicator	1990	2000	2005	2010	2015	2020f	2025f
Population, 0-4 yrs, total, '000	16,808.7	21,083.5	24,325.6	27,699.3	31,109.2	33,914.2	36,830.0
Population, 5-9 yrs, total, '000	14,066.1	17,217.6	19,698.2	23,021.7	26,417.7	29,887.1	32,768.2
Population, 10-14 yrs, total, '000	11,970.9	15,046.2	16,648.3	19,101.7	22,401.4	25,793.9	29,283.0
Population, 15-19 yrs, total, '000	9,873.7	13,315.5	14,628.9	16,213.2	18,648.9	21,923.3	25,319.8
Population, 20-24 yrs, total, '000	7,995.2	11,266.8	12,810.6	14,102.2	15,671.5	18,076.4	21,341.5
Population, 25-29 yrs, total, '000	6,722.1	9,154.2	10,783.6	12,292.0	13,565.3	15,115.8	17,517.4
Population, 30-34 yrs, total, '000	5,653.0	7,356.3	8,739.2	10,319.2	11,795.2	13,052.3	14,612.2
Population, 35-39 yrs, total, '000	4,723.9	6,158.7	7,006.5	8,345.9	9,884.0	11,331.0	12,595.7
Population, 40-44 yrs, total, '000	4,126.6	5,142.6	5,839.0	6,665.1	7,964.6	9,463.4	10,898.2
Population, 45-49 yrs, total, '000	3,535.2	4,246.9	4,840.7	5,516.4	6,319.8	7,580.9	9,049.1

Indicator	1990	2000	2005	2010	2015	2020f	2025f
Population, 50-54 yrs, total, '000	2,903.3	3,631.8	3,941.1	4,511.8	5,165.1	5,945.6	7,166.7
Population, 55-59 yrs, total, '000	2,329.1	2,993.9	3,285.5	3,587.2	4,131.1	4,759.0	5,508.1
Population, 60-64 yrs, total, '000	1,819.4	2,293.6	2,584.1	2,861.3	3,150.5	3,659.8	4,244.8
Population, 65-69 yrs, total, '000	1,318.1	1,628.7	1,826.3	2,085.7	2,336.5	2,605.0	3,053.3
Population, 70-74 yrs, total, '000	829.6	1,037.9	1,136.6	1,300.4	1,508.6	1,719.0	1,940.3
Population, 75-79 yrs, total, '000	411.1	534.9	580.4	654.6	764.6	907.6	1,052.3
Population, 80-84 yrs, total, '000	147.6	194.6	211.9	239.6	277.1	333.4	405.5
Population, 85-89 yrs, total, '000	32.3	42.7	47.0	54.0	62.7	75.3	93.6
Population, 90-94 yrs, total, '000	3.9	5.1	5.4	6.4	7.5	9.1	11.4
Population, 95-99 yrs, total, '000	0.2	0.3	0.4	0.4	0.5	0.6	0.8
Population, 100+ yrs, total, '000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

na = not available; f = Fitch Solutions forecast. Source: World Bank, UN, Fitch Solutions

POPULATION BY AGE GROUP % (NIGERIA 1990-2025)

Indicator	1990	2000	2005	2010	2015	2020f	2025f
Population, 0-4 yrs, % total	17.64	17.23	17.51	17.47	17.17	16.45	15.76
Population, 5-9 yrs, % total	14.76	14.07	14.18	14.52	14.58	14.50	14.02
Population, 10-14 yrs, % total	12.57	12.30	11.98	12.05	12.36	12.51	12.53
Population, 15-19 yrs, % total	10.36	10.88	10.53	10.22	10.29	10.63	10.83
Population, 20-24 yrs, % total	8.39	9.21	9.22	8.89	8.65	8.77	9.13
Population, 25-29 yrs, % total	7.06	7.48	7.76	7.75	7.49	7.33	7.50
Population, 30-34 yrs, % total	5.93	6.01	6.29	6.51	6.51	6.33	6.25
Population, 35-39 yrs, % total	4.96	5.03	5.04	5.26	5.46	5.50	5.39
Population, 40-44 yrs, % total	4.33	4.20	4.20	4.20	4.40	4.59	4.66
Population, 45-49 yrs, % total	3.71	3.47	3.48	3.48	3.49	3.68	3.87
Population, 50-54 yrs, % total	3.05	2.97	2.84	2.85	2.85	2.88	3.07
Population, 55-59 yrs, % total	2.44	2.45	2.36	2.26	2.28	2.31	2.36
Population, 60-64 yrs, % total	1.91	1.87	1.86	1.80	1.74	1.78	1.82
Population, 65-69 yrs, % total	1.38	1.33	1.31	1.32	1.29	1.26	1.31
Population, 70-74 yrs, % total	0.87	0.85	0.82	0.82	0.83	0.83	0.83
Population, 75-79 yrs, % total	0.43	0.44	0.42	0.41	0.42	0.44	0.45
Population, 80-84 yrs, % total	0.15	0.16	0.15	0.15	0.15	0.16	0.17
Population, 85-89 yrs, % total	0.03	0.03	0.03	0.03	0.03	0.04	0.04
Population, 90-94 yrs, % total	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Population, 95-99 yrs, % total	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Population, 100+ yrs, % total	0.00	0.00	0.00	0.00	0.00	0.00	0.00

na = not available; f = Fitch Solutions forecast. Source: World Bank, UN, Fitch Solutions

Autos Methodology

Industry Forecast Methodology

How We Generate Our Industry Forecasts

Our industry forecasts are generated using the best-practice techniques of time-series modelling and causal/econometric modelling. The precise form of model we use varies from industry to industry, in each case being determined, as per standard practice, by the prevailing features of the industry data being examined. We mainly use OLS estimators and in order to avoid relying on subjective views and encourage the use of objective views, uses a 'general-to-specific' method. We mainly use a linear model, but simple non-linear models, such as the log-linear model, are used when necessary. During periods of 'industry shock', for example a deep industry recession, dummy variables are used to determine the level of impact.

Effective forecasting depends on appropriately selected regression models. We select the best model according to various different criteria and tests, including, but not exclusive to:

- R2 tests explanatory power; Adjusted R2 takes degree of freedom into account
- Testing the directional movement and magnitude of co-efficients
- Hypothesis testing to ensure co-efficients are significant (normally t-test and/or P-value)
- All results are assessed to alleviate issues related to auto-correlation and multi-co-linearity.

We use the selected best model to perform forecasting.

It must be remembered that human intervention plays a necessary and desirable role in all of our industry forecasting. Experience, expertise and knowledge of industry data and trends ensures that analysts spot structural breaks, anomalous data, turning points and seasonal features where a purely mechanical forecasting process would not.

Within the autos industry, this intervention might include, but is not exclusive to, significant company expansion plans, new product development that might influence pricing levels, dramatic changes in local production levels, product taxation, the regulatory environment and specific areas of legislation, changes in lifestyles and general societal trends, the formation of bilateral and multilateral trading agreements and negotiations, political factors including trade and the development of the industry in neighbouring markets that are potential competitors for foreign direct investment.

Example of Vehicle Sales Model:

$$(\text{Vehicle Sales})_t = \beta_0 + \beta_1*(\text{GDP})_t + \beta_2*(\text{Population})_t + \beta_3*(\text{Inflation})_t + \beta_4*(\text{Lending Rate})_t + \beta_5*(\text{Foreign Exchange Rate})_t + \beta_6*(\text{Government Expenditure})_t + \beta_7*(\text{Vehicle Sales})_{t-1} + \varepsilon_t$$

Sources

Aside from government departments and official company reports, we rely on the International Organization of Motor Vehicle Manufacturers (OICA), other established think tanks, institutes and international and national news agencies.

Autos Production Risk/Reward Index

Our Autos Production Risk/Reward Index (RRI) quantifies and ranks a country's attractiveness within the context of the automotive industry, based on the balance between the **Risks** and **Rewards** of beginning or maintaining autos manufacturing operations in
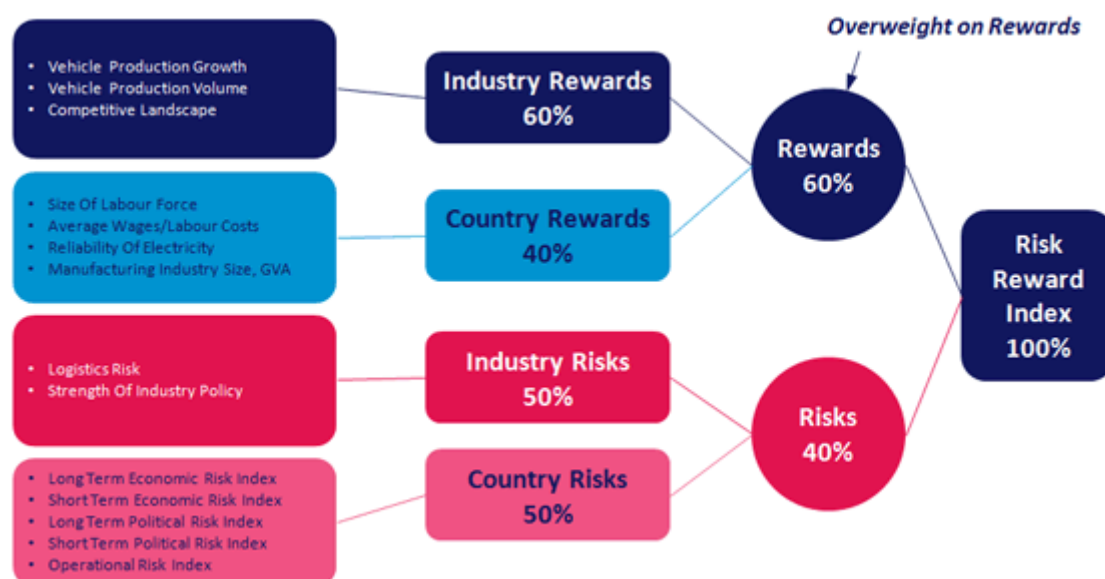
different countries.

We combine industry-specific characteristics with broader economic, political and operational market characteristics. We weight these inputs in terms of their importance to investor decision-making in a given industry. The result is a nuanced and accurate reflection of the realities facing investors in terms of firstly the balance between opportunities and risk and secondly between sector-specific and broader market traits. This enables users of the index to assess a market's attractiveness in a regional and global context.

The index uses a combination of our proprietary forecasts and analyst assessment of the regulatory climate. As regulations evolve and forecasts change, so the index scores change providing a highly dynamic and forward-looking result.

Benefits Of Using Fitch Solutions' Autos Production RRI

- Global Rankings: One global table, ranking all the countries in Fitch Solutions universe for autos production from least (closest to zero) to most attractive (closest to 100).
- Accessibility: Easily accessible, top down view of the global, regional or sub-regional Risk/Reward profiles.
- Comparability: Identical methodology across 56 countries allows users to build lists of countries they wish to compare, beyond the confines of a global or regional grouping.
- Scoring: Scores out of 100 with a wide distribution, provide nuanced investment comparisons. The higher the score, the more favourable the country profile.
- Quantifiable: Quantifies the Rewards and Risks of doing business in the autos sector in different countries around the world and helps identify specific flashpoints in the overall business environment.
- Comprehensive: Comprehensive set of indicators, assessing industry-specific risks and rewards alongside political, economic and operating risks.
- Entry Point: A starting point to assess the outlook for the autos sector, from which users can dive into more granular forecasts and analysis to gain a deeper understanding of the market.
- Balanced: Multi-indicator structure prevents outliers and extremes from distorting final scores and rankings.
- Methodology is a combination of proprietary Fitch Solutions forecasts, analyst insights and globally acceptable benchmark indicators (for example, World Bank's Doing Business Scores and Transparency International's Corruption Perceptions Index).

Weightings Of Categories And Indicators
Autos Production Risk/Reward Index

Source: Fitch Solutions

The RRI matrix divides into two distinct categories:

Rewards

Evaluation of an industry's size and growth potential (**Industry Rewards**), and also macro industry and/or country characteristics that directly impact the size of business opportunities in a specific sector (**Country Rewards**).

Risks

Evaluation of micro, industry-specific characteristics, crucial for an industry to develop to its potential (Industry Risks) and a quantifiable assessment of the country's political, economic and operational profile (Country Risks).

Assessing our Weightings

Our matrix is deliberately overweight on Rewards (60% of the final RRI score for a market) and within that, the Industry Rewards segment (60% of final Rewards score). This is to reflect the fact that when it comes to long-term investment potential, industry size and growth potential carry the most weight in indicating opportunities, with other structural factors (demographic, labour statistics and infrastructure quality) weighing in, but to a slightly lesser extent. In addition, our focus and expertise in emerging and frontier markets has dictated this bias towards industry size and growth to ensure we are able to identify opportunities in countries where regulatory frameworks are not as developed and industry sizes not as big as in developed markets, but where we know there is a strong desire to invest.

INDICATORS - EXPLANATION AND SOURCES

Indicator	Source	Rationale
Rewards		
Industry Rewards		
Vehicle Production Growth, % Chg y-o-y (five-year average)	Fitch Solutions	Forecasted growth in production indicates growth opportunities and future speed of industry development.
Vehicle Production Volume, Units (five-year average)	Fitch Solutions	Volume indicates size and development stage of local production industry
Competitive landscape	Fitch Solutions Subjective Indicator	Indicates competition for productive resources and industry concentration using the number of vehicle brands being produced/assembled domestically.
Country Rewards		
Size Of Labour Force	Fitch Solutions	The size of the working population indicates broad availability of labour.
Average Wages/ Labour Costs	Fitch Solutions Operational Risk Indicator	Indicator of the cost of labour, a major input in autos manufacturing.
Cost and Availability Of Utilities	Fitch Solutions Operational Risk Index	Proxy for energy availability, a key input in establishing modern, mechanised and large scale production activities.
Manufacturing Capability	Fitch Solutions Forecast	A measure of complex goods as a percentage of total manufacturing, important to a value-added industry such as autos manufacturing
Risks		
Industry Risks		
Logistics Risk	Fitch Solutions Operational Risk Index	Evaluates the ability of producers to maintain production supply chains by assessing the quality and extent of transport infrastructure, the availability and reliability of utilities networks, and the ease of cross-border trading.
Strength Of Industry Policy	Fitch Solutions Subjective Indicator	Identifies if local autos-related industrial policies are present and their respective strength.
Country Risks		

Indicator	Source	Rationale
Long-Term Economic Risk Index	Fitch Solutions Country Risk Index	The LT ERI takes into account the structural characteristics of economic growth, the labour market, price stability, exchange rate stability and the sustainability of the balance of payments, as well as fiscal and external debt outlooks for the coming decade.
Short-Term Economic Risk Index	Fitch Solutions Country Risk Index	The ST ERI seeks to define current vulnerabilities and assess real GDP growth, inflation, unemployment, exchange rate fluctuation, balance of payments dynamics, as well as fiscal and external debt credentials over the coming two years.
Long-Term Political Risk Index	Fitch Solutions Country Risk Index	The LT PRI assesses a country's structural political characteristics based on our assumption that liberal, democratic states with no sectarian tensions and broad-based income equality exhibit the strongest characteristics in favour of political stability, over a multiyear timeframe.
Short-Term Political Risk Index	Fitch Solutions Country Risk Index	The ST PRI assesses pertinent political risks to investment climate stability over a shorter time frame, up to 24 months forward.
Operational Risk Index	Fitch Solutions Operational Risk Index	The Operational Risk Index focuses on existing conditions relating to four main risk areas: Labour Market, Trade and Investment, Logistics, and Crime and Security.

Source: Fitch Solutions

Autos Sales Risk/Reward Index

Our Autos Sales Risk/Reward Index (RRI) quantifies and ranks a country's attractiveness within the context of the automotive industry, based on the balance between the **Risks** and **Rewards** of entering and operating vehicle retailing activities in different countries.

We combine industry-specific characteristics with broader economic, political and operational market characteristics. We weight these inputs in terms of their importance to investor decision-making in a given industry. The result is a nuanced and accurate reflection of the realities facing investors in terms of firstly the balance between opportunities and risk and secondly between sector-specific and broader market traits. This enables users of the index to assess a market's attractiveness in a regional and global context.

The index uses a combination of our proprietary forecasts and analyst assessment of the regulatory climate. As regulations evolve and forecasts change, so the index scores change providing a highly dynamic and forward-looking result.

The Autos Sales Risk/Reward Index universe comprises **124 countries**.

Benefits Of Using Fitch Solutions' Autos RRI

- Global Rankings: One global table, ranking all the countries in Fitch Solutions' universe for autos sales from least (closest to zero) to most attractive (closest to 100).
- Accessibility: Easily accessible, top down view of the global, regional or sub-regional Risk/Reward profiles.
- Comparability: Identical methodology across 124 countries for Autos sales allows users to build lists of countries they wish to compare, beyond the confines of a global or regional grouping.
- Scoring: Scores out of 100 with a wide distribution, provide nuanced investment comparisons. The higher the score, the more
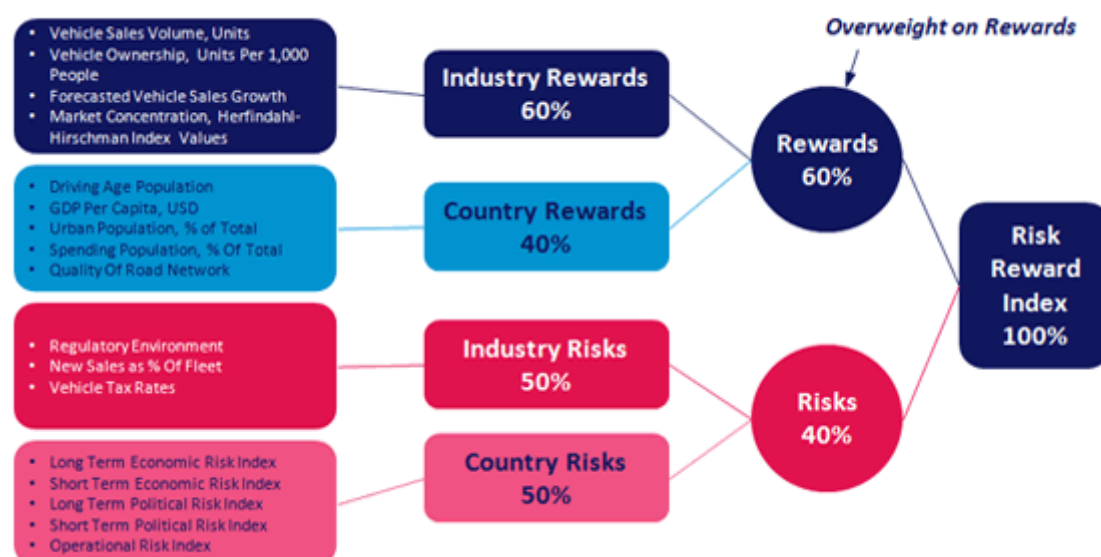
favourable the country profile.

- Quantifiable: Quantifies the Rewards and Risks of doing business in the autos sector in different countries around the world and helps identify specific flashpoints in the overall business environment.
- Comprehensive: Comprehensive set of indicators, assessing industry-specific risks and rewards alongside political, economic and operating risks.
- Entry Point: A starting point to assess the outlook for the autos sector, from which users can dive into more granular forecasts and analysis to gain a deeper understanding of the market.
- Balanced: Multi-indicator structure prevents outliers and extremes from distorting final scores and rankings.
- Methodology is a combination of proprietary Fitch Solutions forecasts, analyst insights and globally acceptable benchmark indicators (for example, World Bank's Doing Business Scores and Transparency International's Corruption Perceptions Index).

Weightings Of Categories And Indicators

Source: Fitch Solutions

The RRI matrix divides into two distinct categories:

Rewards

Evaluation of an industry's size and growth potential (**Industry Rewards**), and also macro industry and/or country characteristics that directly impact the size of business opportunities in a specific sector (**Country Rewards**).

Risks

Evaluation of micro, industry-specific characteristics, crucial for an industry to develop to its potential (**Industry Risks**) and a quantifiable assessment of the country's political, economic and operational profile (**Country Risks**).

Assessing Our Weightings

Our matrix is deliberately overweight on Rewards (60% of the final RRI score for a market) and within that, the Industry Rewards segment (60% of final Rewards score). This is to reflect the fact that when it comes to long-term investment potential, industry size and growth potential carry the most weight in indicating opportunities, with other structural factors (demographic, labour statistics

and infrastructure quality) weighing in, but to a slightly lesser extent. In addition, our focus and expertise in emerging and frontier markets has dictated this bias towards industry size and growth to ensure we are able to identify opportunities in countries where regulatory frameworks are not as developed and industry sizes not as big as in developed markets, but where we know there is a strong desire to invest.

INDICATORS - EXPLANATION AND SOURCES

Indicator	Source	Rationale
Rewards		
Industry Rewards		
Vehicle Sales Volume, Units (five-year average)	Fitch Solutions	Size of the overall vehicle market indicates potential for opportunities and scale of operations.
Vehicle Ownership, Registered Vehicles per 1,000 population	Fitch Solutions	Ownership rates indicate market development/maturity and strength of consumer needs/desires for vehicle ownership.
Vehicle Sales Growth, % chg y-o-y (five-year average)	Fitch Solutions	Forecasted growth in sales indicates growth opportunities for new/existing entrants.
Market Concentration, Herfindahl-Hirschman Index Values	Fitch Solutions Calculation	Market concentration indicates the ease of entering and competing in the market.
Country Rewards		
Driving Age Population	Fitch Solutions Forecast	The size of the population eligible to drive indicates underlying potential market size.
GDP Per Capita, USD	Fitch Solutions Forecast	GDP per capita identifies the purchasing power of consumers.
Urban Population, % Of Total	Fitch Solutions Forecast	High and growing concentration of population in urban areas indicates greater pressure for vehicle ownership and road-based public transport.
Spending Population, % Of Total	Fitch Solutions Forecast	Growth of spending population identifies the relative strength/influence of household decision makers who are ultimately responsible for vehicle purchase decisions.
Quality Of Road Network	Fitch Solutions Operational Risk Index	Road quality highlights strength of road infrastructure and ability to cater for more developed vehicle fleets.
Risks		
Industry Risks		
Regulatory Environment	Fitch Solutions Operational Risk Index	Regulatory environment for businesses is captured in the Operational Risk indicator for 'Economic Openness'. It assesses a country's openness to investment and trade, especially by new market entrants.
New Sales, As % Of Fleet	Fitch Solutions Forecast	Measures the maturity of the new vehicle market and proxies for the rate of vehicle replacement.

Indicator	Source	Rationale
Vehicle Tax Rates	Fitch Solutions Subjective Indicator	Measures the tax burden incurred by an imported new vehicle including MFN tariff rates, excise and special taxes and VAT/GST. It is a strong determinant of how competitively priced a new market entrant would be.
Country Risks		
Long-Term Economic Risk Index	Fitch Solutions Country Risk Index	The LT ERI takes into account the structural characteristics of economic growth, the labour market, price stability, exchange rate stability and the sustainability of the balance of payments, as well as fiscal and external debt outlooks for the coming decade.
Short-Term Economic Risk Index	Fitch Solutions Country Risk Index	The ST ERI seeks to define current vulnerabilities and assess real GDP growth, inflation, unemployment, exchange rate fluctuation, balance of payments dynamics, as well as fiscal and external debt credentials over the coming two years.
Long-Term Political Risk Index	Fitch Solutions Country Risk Index	The LT PRI assesses a country's structural political characteristics based on our assumption that liberal, democratic states with no sectarian tensions and broad-based income equality exhibit the strongest characteristics in favour of political stability, over a multiyear timeframe.
Short-Term Political Risk Index	Fitch Solutions Country Risk Index	The ST PRI assesses pertinent political risks to investment climate stability over a shorter time frame, up to 24 months forward.
Operational Risk Index	Fitch Solutions Operational Risk Index	The ORI focuses on existing conditions relating to four main risk areas: Labour Market, Trade and Investment, Logistics, and Crime and Security

Source: Fitch Solutions

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