



# How to benefit from the West African growth market?

## Market Study on Leaf Springs and Coil Springs in Ghana and ECOWAS Region

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# 1. Project overview

## The key project aim is to provide an overview of the leaf and coil spring market in Ghana and nearby ECOWAS countries.

Phase	Content and results
<u>Market overview</u> <u>Ghana /</u> <u>ECOWAS</u>	<p><b>Overall:</b></p> <ul style="list-style-type: none"> <li>• 2 product categories, 4 ECOWAS countries:</li> <li>• Research focus on top 3 countries:             <ul style="list-style-type: none"> <li>• Ghana and Nigeria: approx. 10-15 interviews (per country) with relevant stakeholders</li> <li>• Ivory Coast: approx. 5-7 interviews with relevant stakeholders</li> <li>• Burkina Faso OR Mali (low priority, <i>note: the specific country will be decided by the client</i>): high-level data only</li> </ul> </li> <li>• <b>Assess the current market size for leaf springs and coil springs in Ghana and key markets in ECOWAS, including countries of origin of products presently sold on the market.</b> Including:             <ul style="list-style-type: none"> <li>• Approx. total market size for 2 stated product groups in 4 countries</li> <li>• Country of origin as % of total market</li> <li>• Approx. quality segments (in % of total)</li> <li>• Approx. prices per segment in top 3 countries</li> </ul> </li> <li>• <b>Estimate the market potential, trends and demand drivers for leaf springs and coil springs within the ECOWAS region.</b> Including:             <ul style="list-style-type: none"> <li>• Approx. total accessible market per product category and country (<i>note: if coverage of specific OE partner numbers or similar are necessary, africon will have to rely on estimates and assumptions. We will not be able to provide in-depth assessments of the vehicle parcs in all countries</i>)</li> <li>• Market trends (technological, quality shifts, market size/demand shifts etc.)</li> <li>• Est. outlook for total market size per country in 3-5 years</li> </ul> </li> <li>• <b>Provide an overview of the competitive landscape in key West African markets, i.e., key market players, product portfolios and production volumes.</b> Including:             <ul style="list-style-type: none"> <li>• Identification of other local producers in the two product groups in the 3 countries, including product portfolios, approx. size/production volume</li> <li>• Leading 3-5 importers per country, including brands and products carried, approx. scale of imports (<i>note: africon will not be able to provide a 100% complete picture of all larger importers</i>)</li> </ul> </li> <li>• <b>Advise on the value chains that need to be developed/ enhanced in Ghana in order to achieve the ambition of scaling production and entering OEM segment.</b> Including:             <ul style="list-style-type: none"> <li>• Highlighting necessary and achievable segment developments in the supply of tier 2 components/materials, as well as downstream sales opportunities (vehicle assembly / aftermarket)</li> <li>• Highlighting key OEM requirements with regards to volume, quality, pricing and similar</li> </ul> </li> </ul>

africon conducted a total of 35 interviews with different stakeholders in the automotive industry



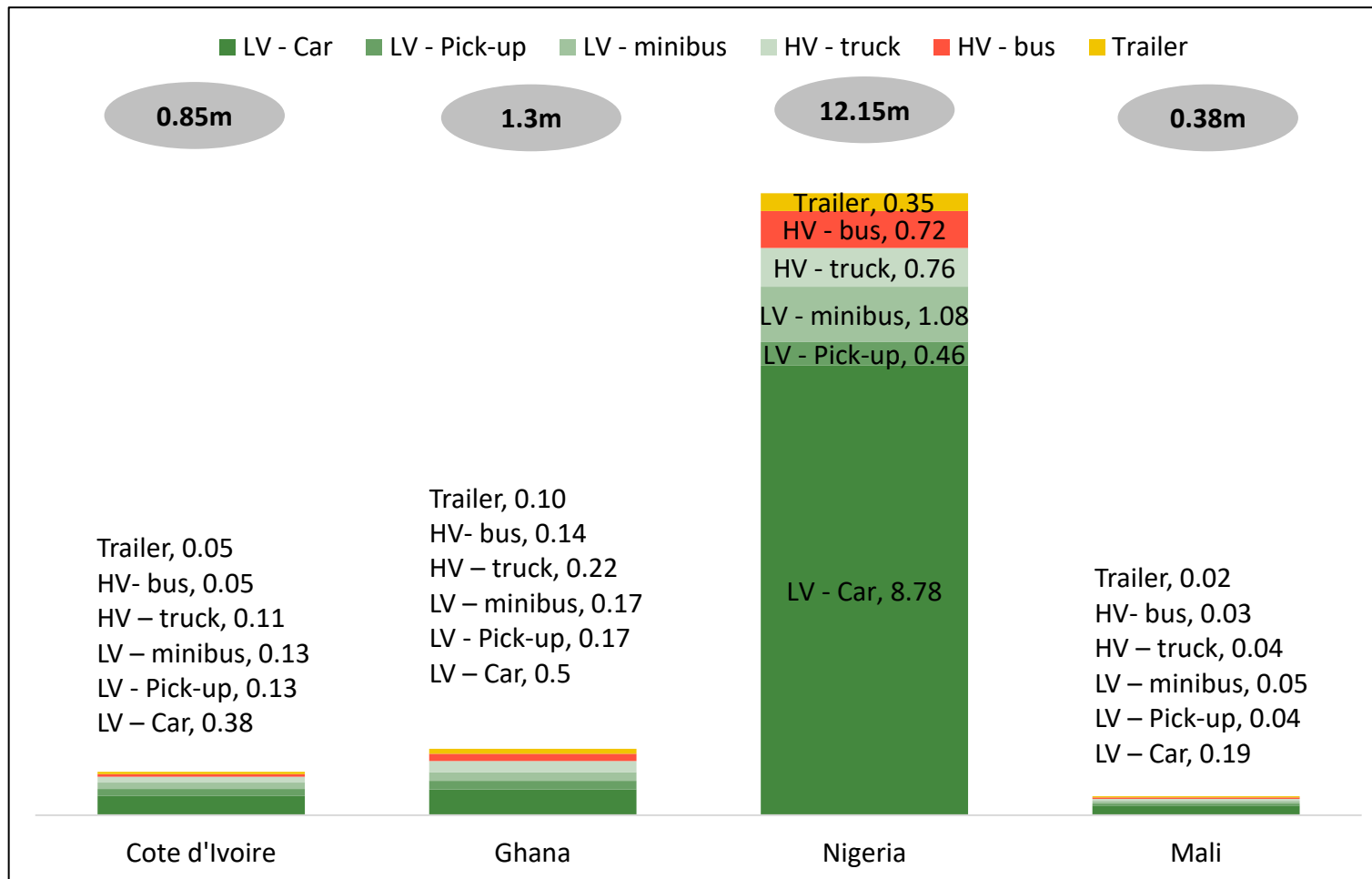
Additionally, africon utilized existing information from the africon data base, analyzed trade statistics and various other secondary data sources.

## 2. Vehicle population overview

## Nigeria has by far the largest vehicle fleet – but also an old one

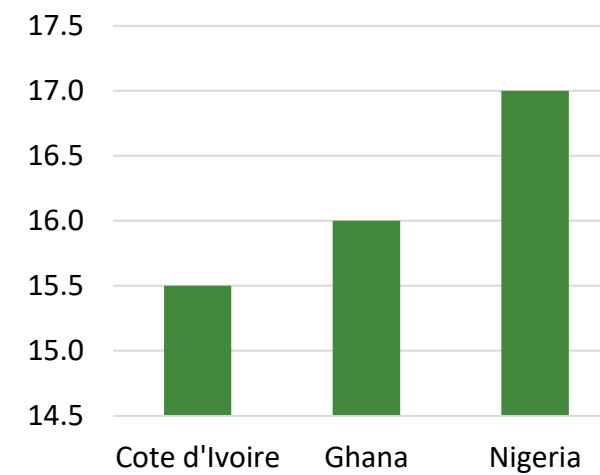
### Approximate total vehicle in operation

(2021, in millions of units)



### Approximate average vehicle age

(2021, in years)



#### Notes

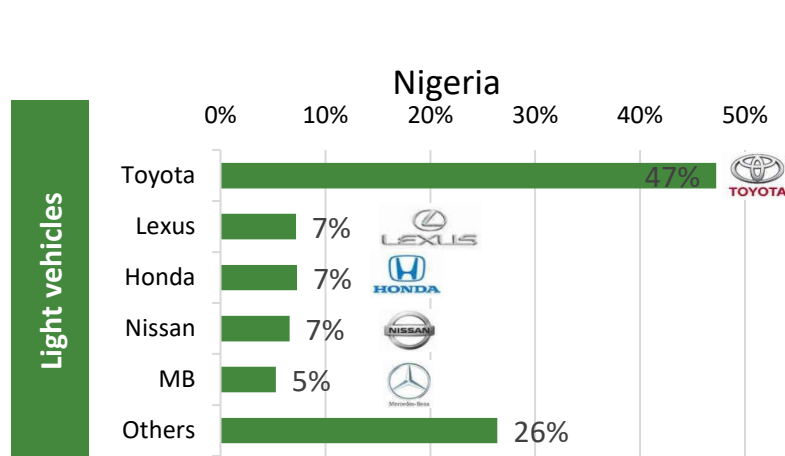
- Vast majority of vehicles are imported as second hand

Regulation on maximum age of imported vehicles:

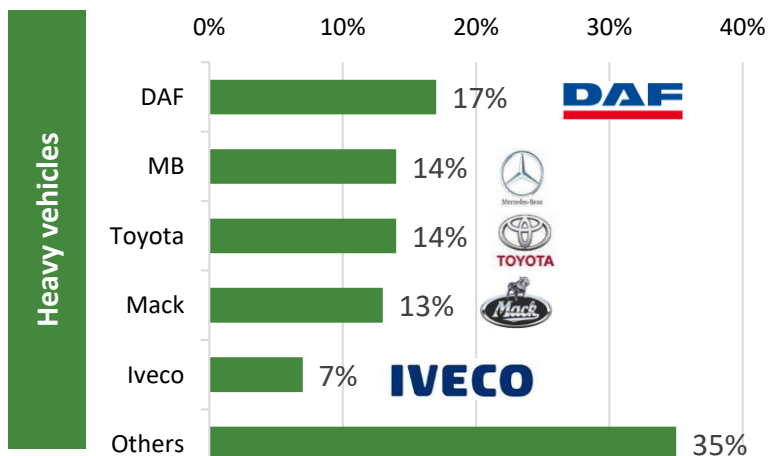
- Nigeria: 12 years old (since 2022), heavy smuggling
- Ghana: 10 years old (since 2020)
- Cote d'Ivoire: 5 years old (since 2018)

## Vehicles in operation: brands

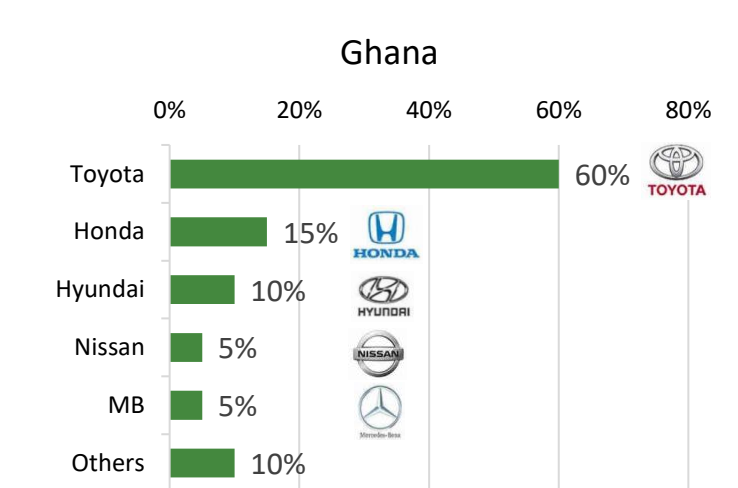
### Japanese brands dominate light vehicles, heavy vehicles is more fragmented



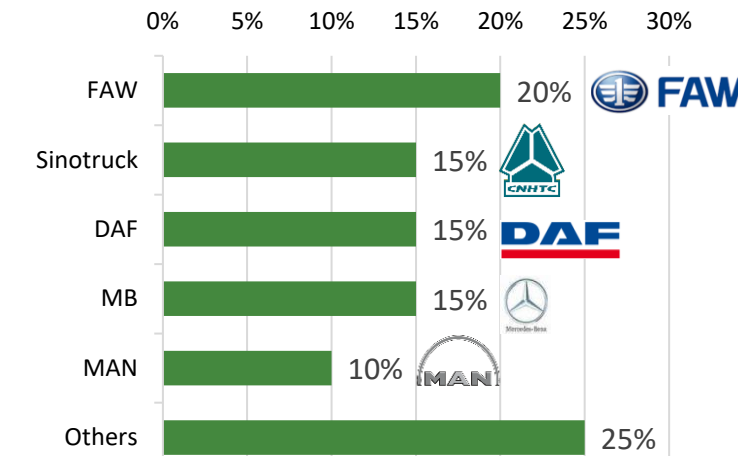
Key models include: Toyota Camry, Corolla, Highlander, RAV 4, Hilux; Honda Accord, Civic; Lexus RX350/300, RX330



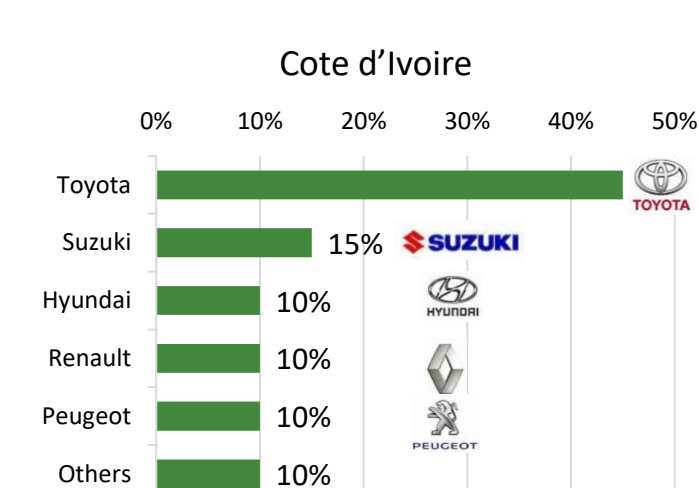
Key models include: MB Actros, Atego; DAF XF95, CF75, 3300; Iveco EuroStar, TurboStar; Sinotruck Howo



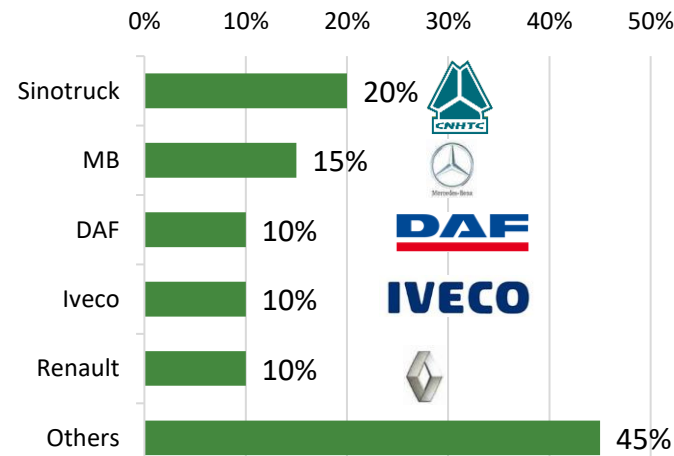
Key models include: Toyota Corolla, Camry, Vitz, RAV4, Highlander; Honda CRV, Civic, Accord; Hyundai Elantra, Sonata, Santa Fe



Key models include: Sinotruck Howo; MB Actros, MAN TGA; DAF CF, XF



Key models include: Toyota Corolla, Yaris, Camry, RAV4; Suzuki Alto, S-Presso, Vitara, Swift; Hyundai Elantra, Tucson, Ix35; Renault Duster, Kwid etc.



Key models include: Sinotruck HOWO; MB Actros










## 3. Trailers manufacturers



Ghana has six companies that manufacture/ assemble trailers. All are located around the Greater Accra region

Sample of end customers for leaf spring manufactures

Trailer manufacturers in Ghana  
(2022)







Companies	Location	Products	Brands
AMCO International	Accra	Flat Bed and Cargo Bodies, container and bulk carriers, concrete lifters, low beds, man lifters.	
Alura Trailer	Accra	Tipper trailers, tanker trailers, low and flat bed trailers, container Chassis trailers.	
Addfra Limited	Accra	Flat bed semi-trailers, water tankers, bulk fuel tankers, refrigerated truck bodies.	 
Multix Ltd	Accra	Flatbed semi trailer, low bed trailer, tipper body, fuel tanker, terminal trailers	
B5 Plus Group	Tema	Flat-bed Trailer, Side Body Trailer, Low Bed Trailer, Tippers, Tankers	
Sivoko Group Ltd (Automotive Spring Ltd.)	Tema	Flat-bed Trailer, Side Body Trailer, Low Bed Trailer, Tippers, Tankers	



Only five companies manufacture/ assemble trailers in Nigeria. Mercedes and Tata are common brands.

Sample of end customers for leaf spring manufactures

Trailer manufacturers in Nigeria  
(2022)

Companies	Location	Product	Brands
Iron Products Industries	Lagos	Trailers, trucks	  
Afrifab Steel	Lagos	Semi-trailers buckets, water tankers, Oil Product tank trailer, Bitumen Tank trailer, low and flat bed trailers	N/A
Obasimo	Lagos	Fuel and water tankers, semi-trailer container	N/A
Sevan Construction Nigeria	Lagos	Beverage, food, vehicle carriers, low and flat bed trailers, tanks & tankers, tippers.	
Turraco industrial	Lagos	Mobile Fuel Station Petroleum/Oil /Diesel/Kerosene chemical Storage Tanks Storage Silos & Bin	 











Source: africon local research (2022)



Côte d'Ivoire has three manufacturers of trailers located in Abidjan. Comet is the leader in the sector

Sample of end customers for leaf spring manufactures

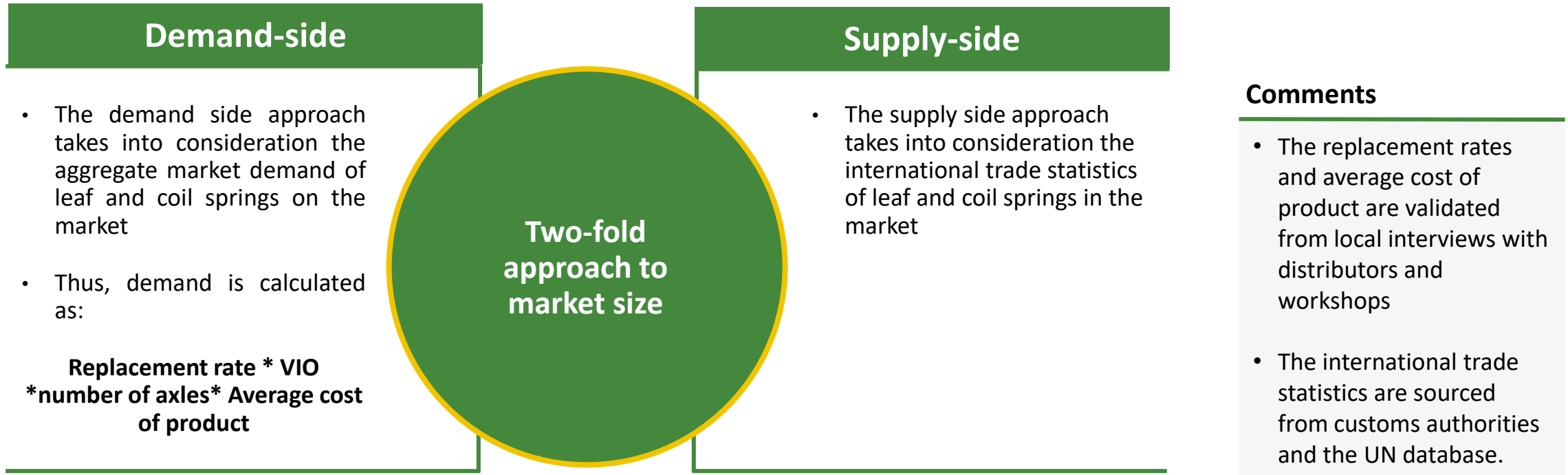
Trailer manufacturers in Côte d'Ivoire  
(2022)

Companies	Location	Products	Brands
COMET	Abidjan	Flat bed semi-trailers, tippers semi-trailers, carriages semi-trailers, tanks semi-trailers, carrier-based equipment semi-trailers	
Wielton	Abidjan	Low loader trailers and semi-trailers, superstructures and tipper trailers, containers semi-trailers, Flat bed trailers, tippers semi-trailers	     
Lassire Industrie	Abidjan	Semi-trailers, tanker semi-trailers, metal semi-trailer arches, tarpaulin, ampliroll trailers	  

Source: africon local research (2022)

## 4. Market size approach

## A two-fold approach is used to estimate the market potential of leaf and coil springs

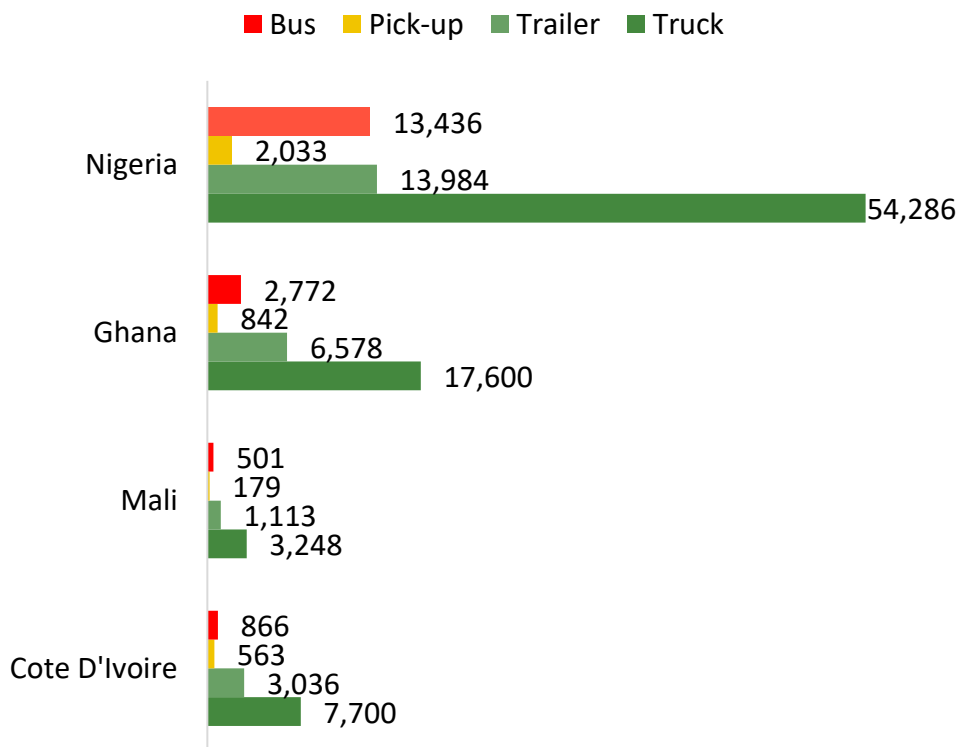


## 4a. Demand-side approach

## Leaf spring total addressable market (tons)

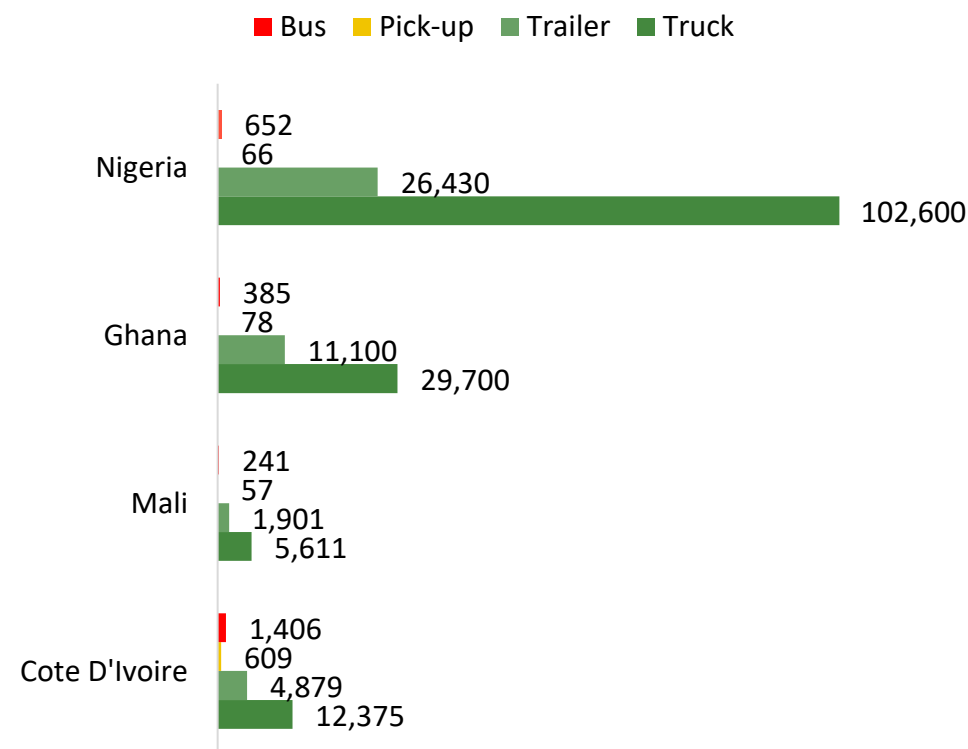
**The total addressable market for single and full assembly replacement is 128,00 tons and 198,000 tons, respectively, per annum**

**Annual demand for leaf springs**  
(single replacement, in tons)



The average weight of the leaf spring used in the estimation:  
Bus: 11kg; Pick-up: 11kg; Trailer: 20kg; Truck: 20kg

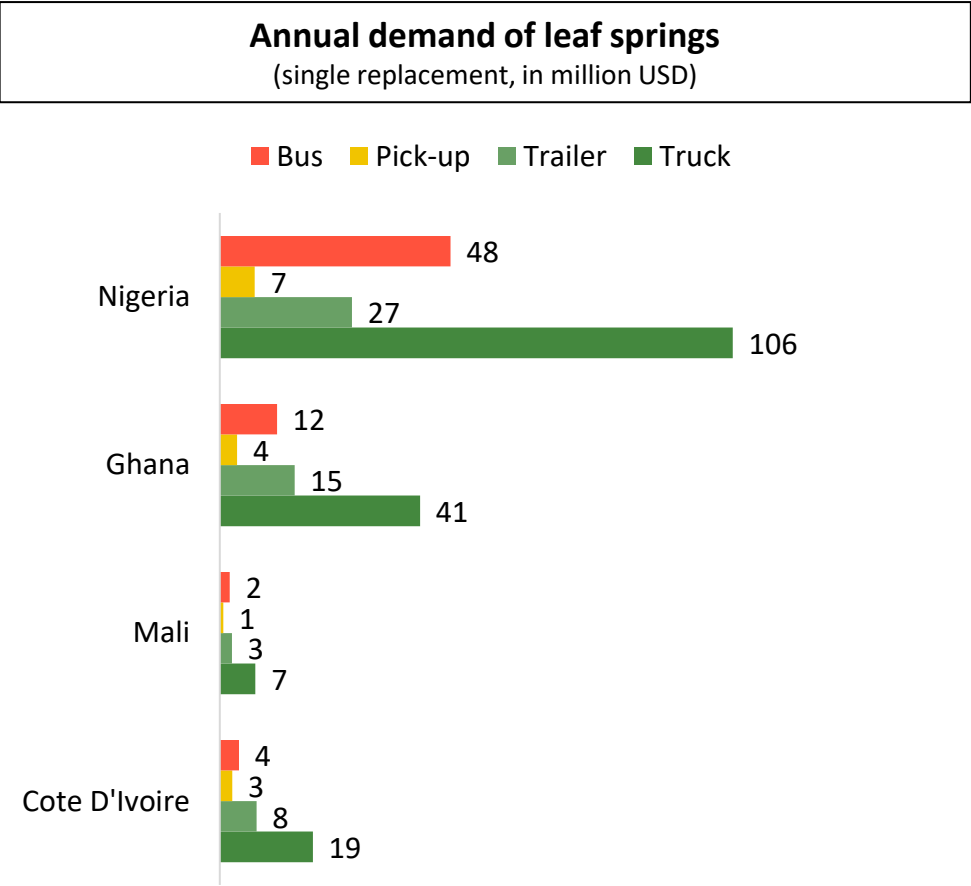
**Annual demand for leaf springs**  
(full replacement, in tons)



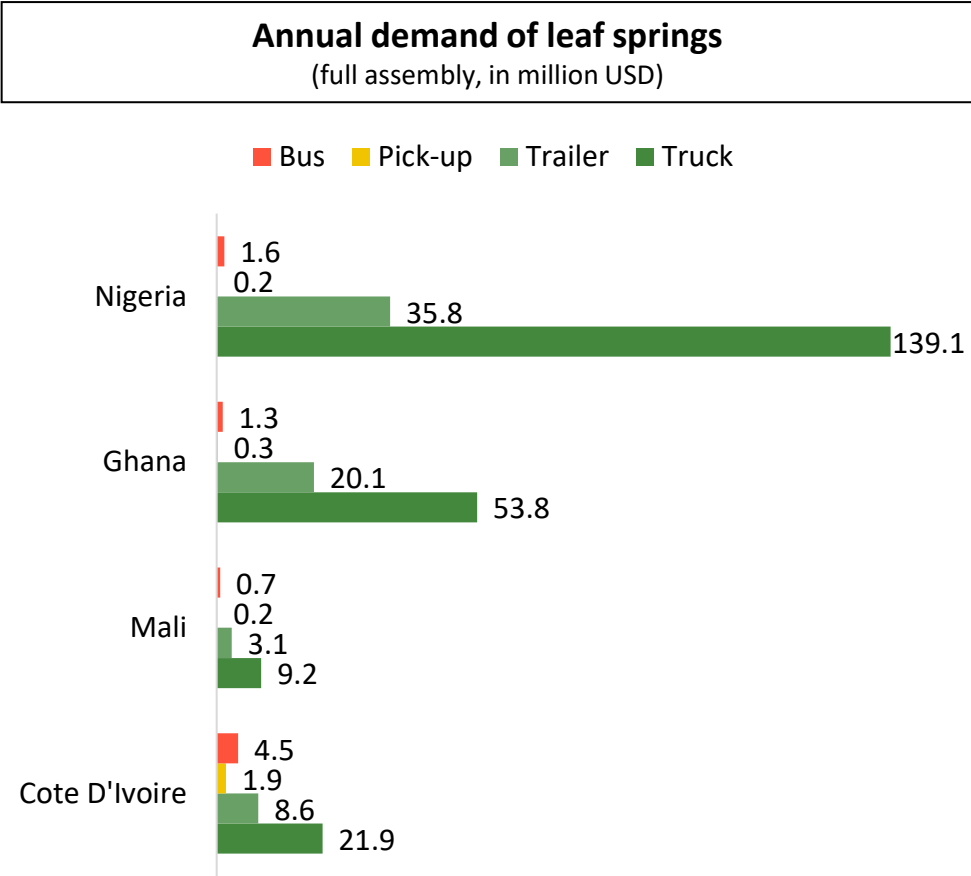
The average weight of the leaf spring used in the estimation:  
Bus: 50kg; Pick-up: 50kg; Trailer: 90kg; Truck: 90kg



The total addressable market stands at > \$500 million with Nigeria and Ghana being the leading markets



Market sizes are calculated with the **vehicle parc, the number of axles, the replacement rate and the average retail price** per product

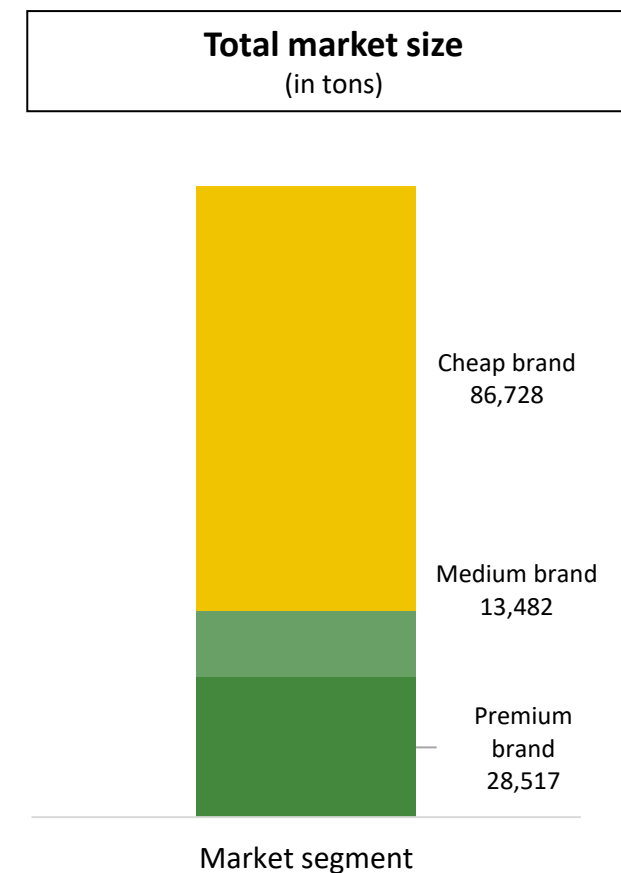
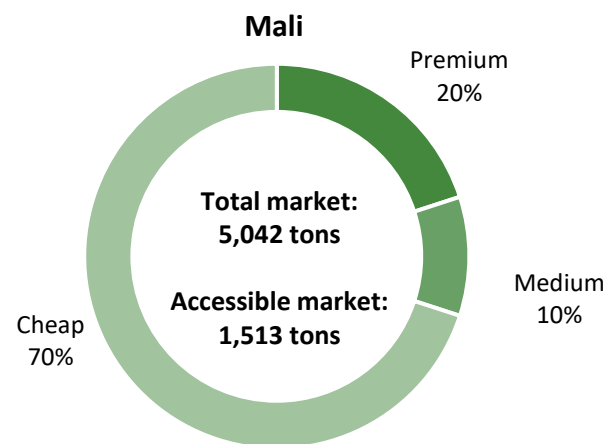
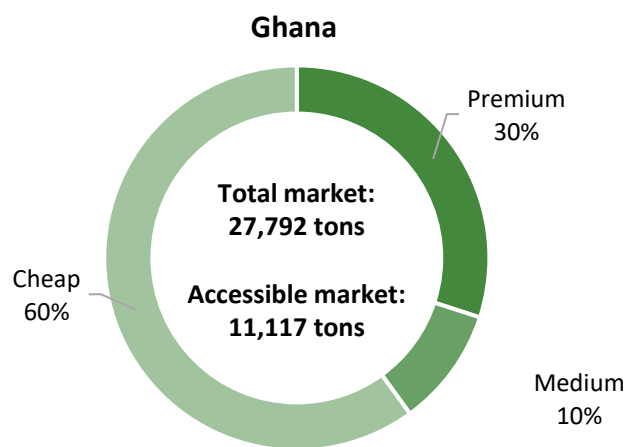
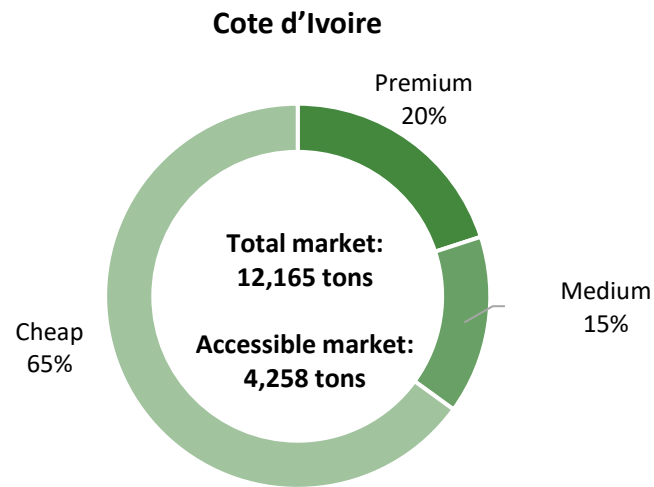
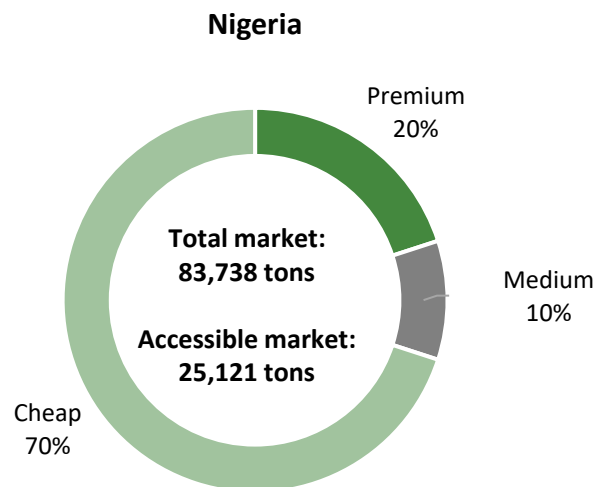


Note: The average price includes the import duties, cost of transportation, distributor margins and other related costs

## The total accessible market size for premium and medium-priced single leaf replacement in the major countries is at least 42,009 tons per year

Single leaves (in tons)

Leaf spring segments per country

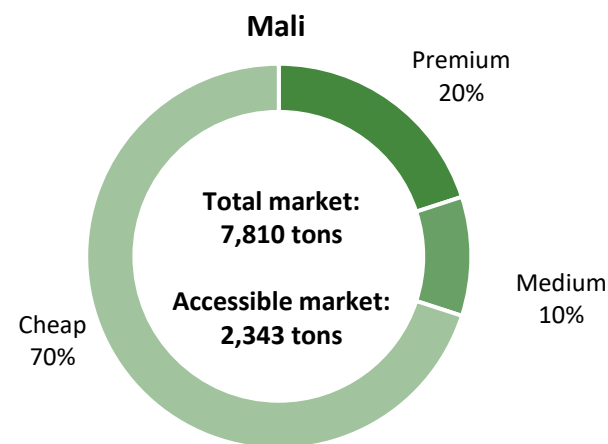
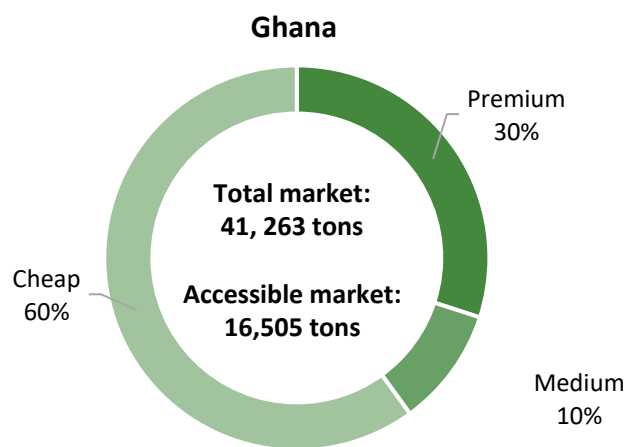
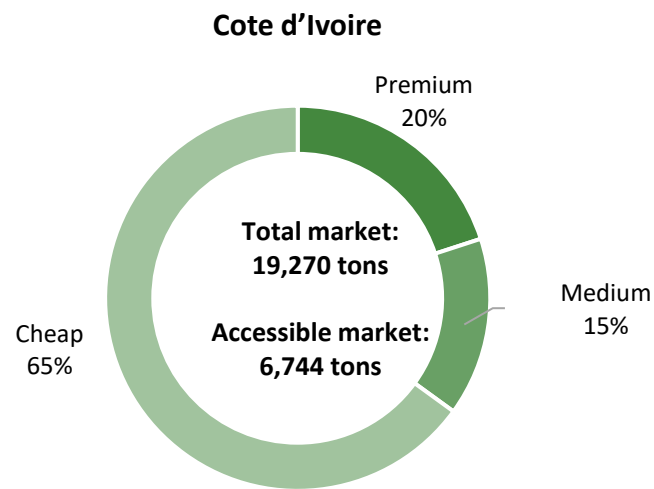
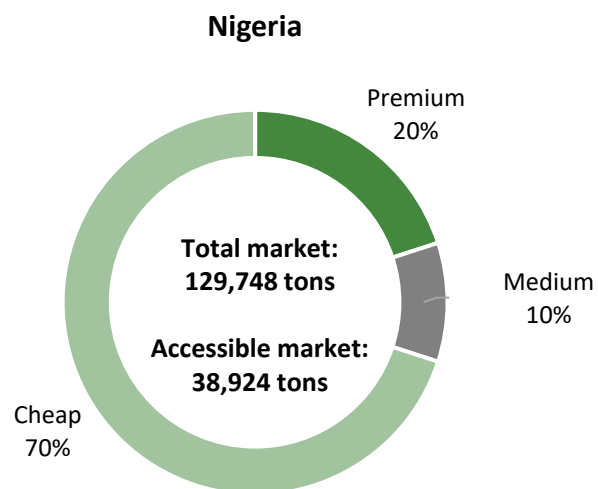


Sources: interviews with local distributors and experts (2022),

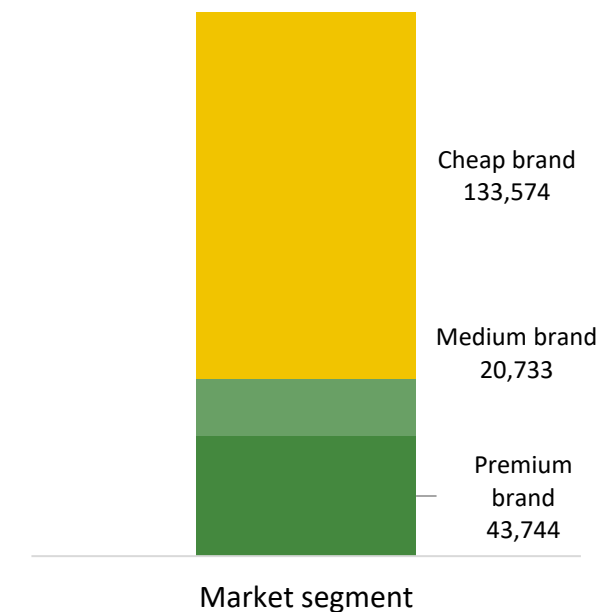
## The total accessible market size for premium and medium-priced for full leaf replacements in the major countries is at least 64,516 tons per year

Full assemblies (in tons)

Leaf spring segments per country

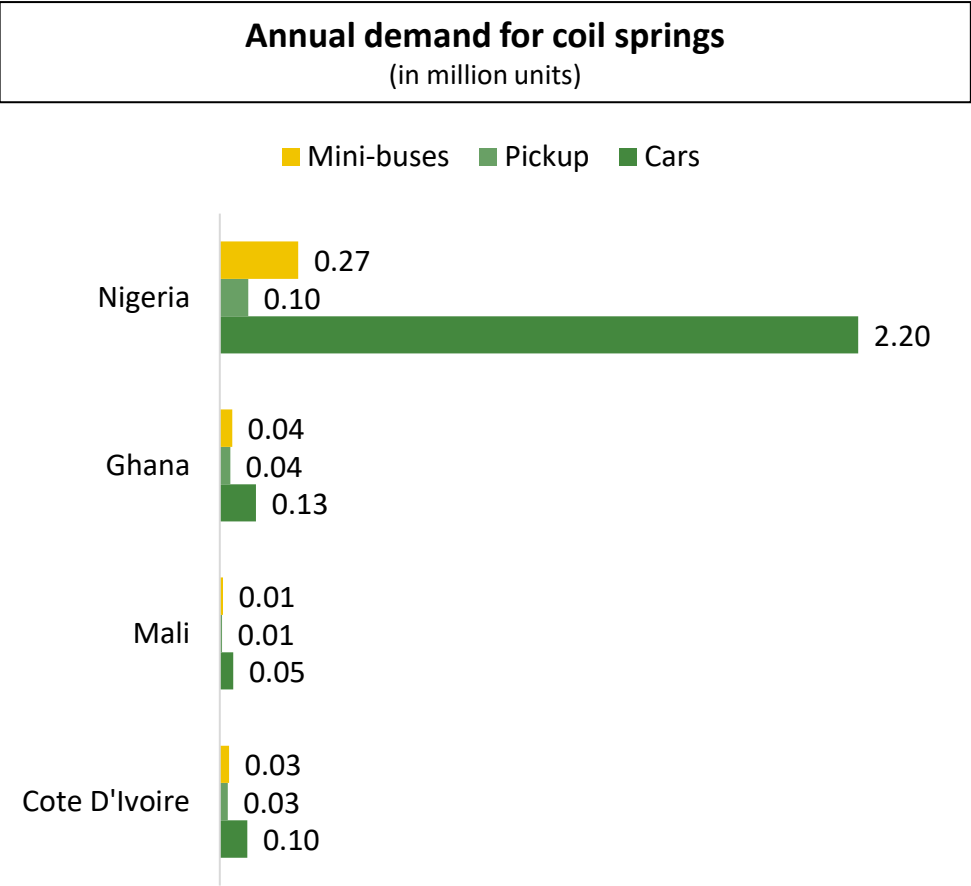


**Total market size**  
(in tons)

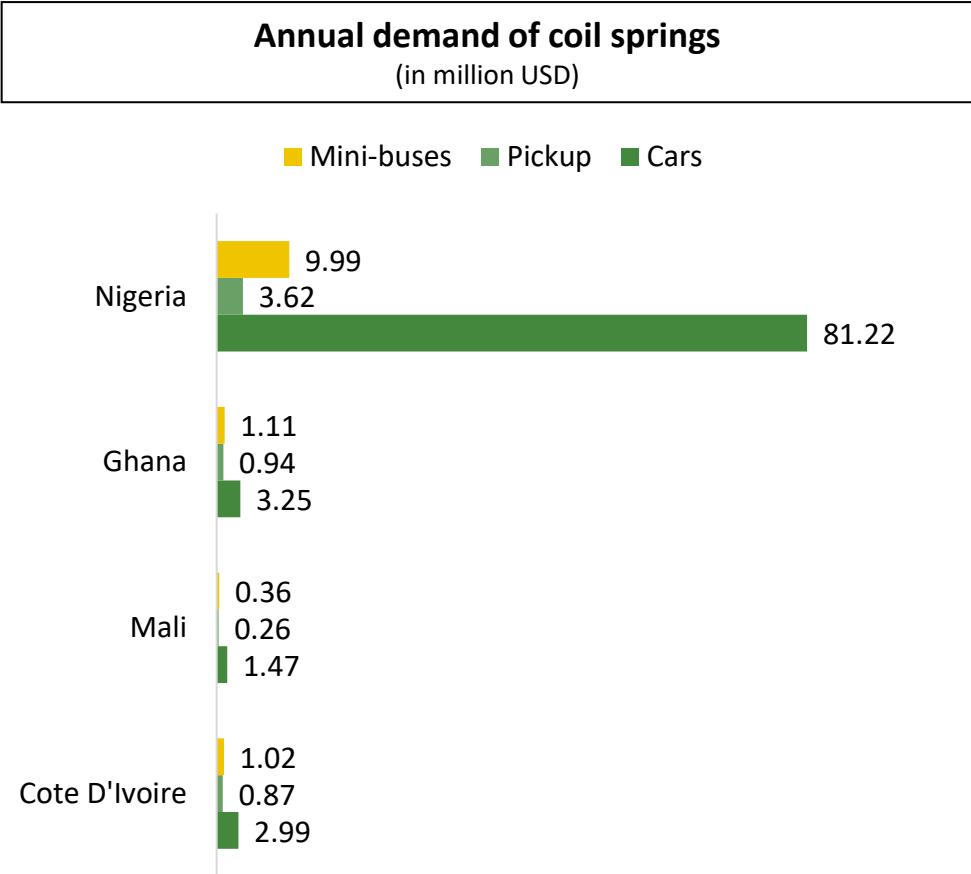


Sources: interviews with local distributors and experts (2022),

The total addressable market stands at \$100 million per year in the four major countries

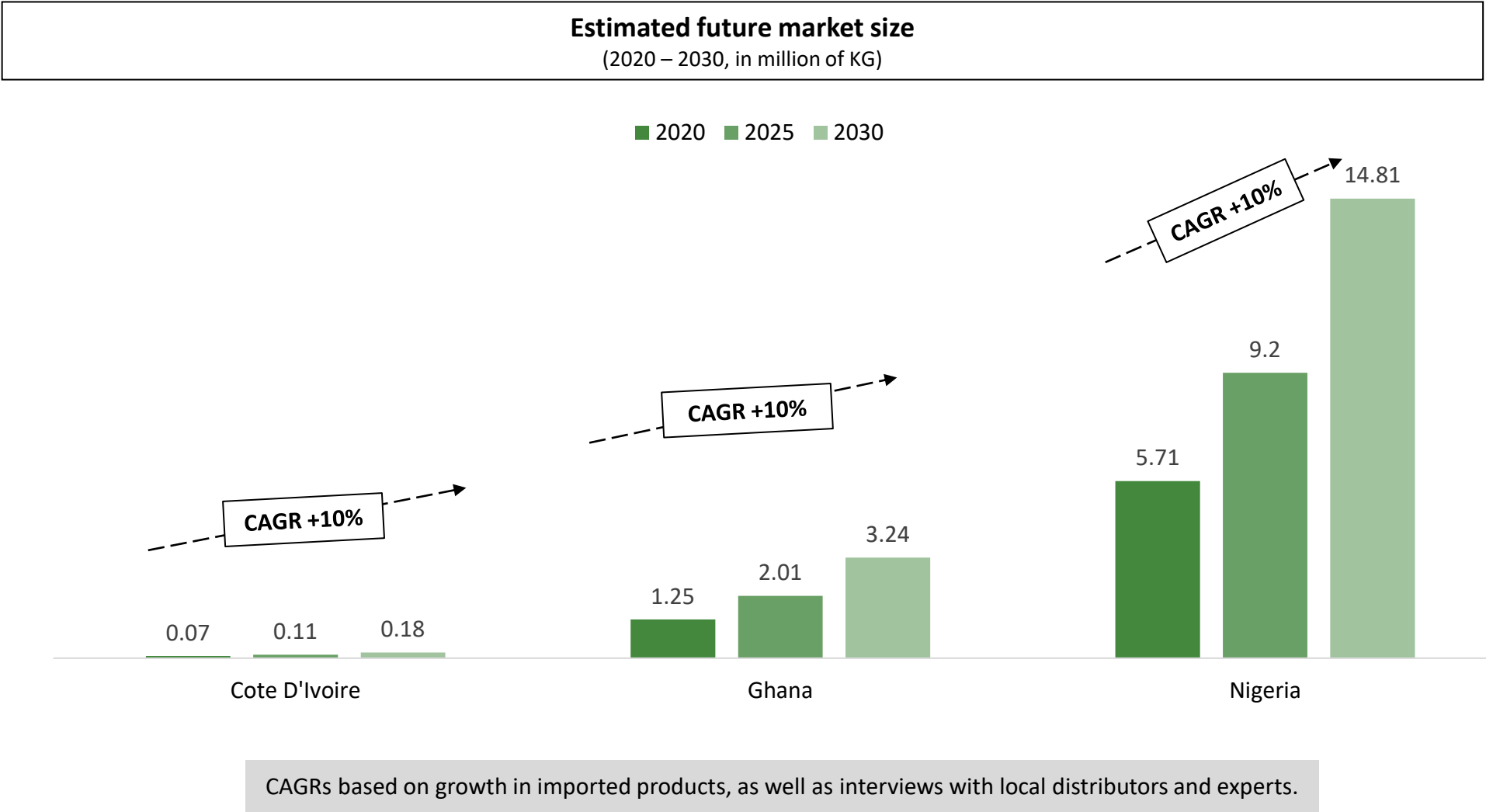


Market sizes are calculated with the vehicle parc, the number of axles, and the replacement rate and average retail price (for value in USD)



Note: The average price includes the import duties, cost of transportation and distributor margins

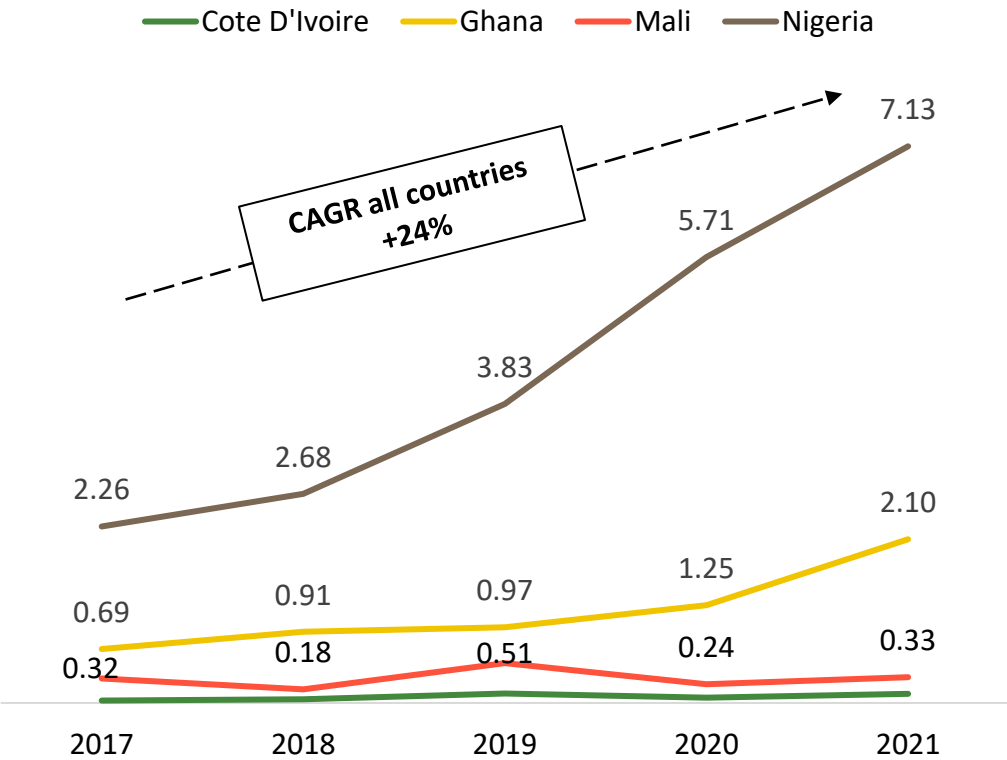
The markets for leaf spring is growing rapidly, and Nigeria will continue to be the leading automotive market in the ECOWAS region



## 4b. Supply-side approach

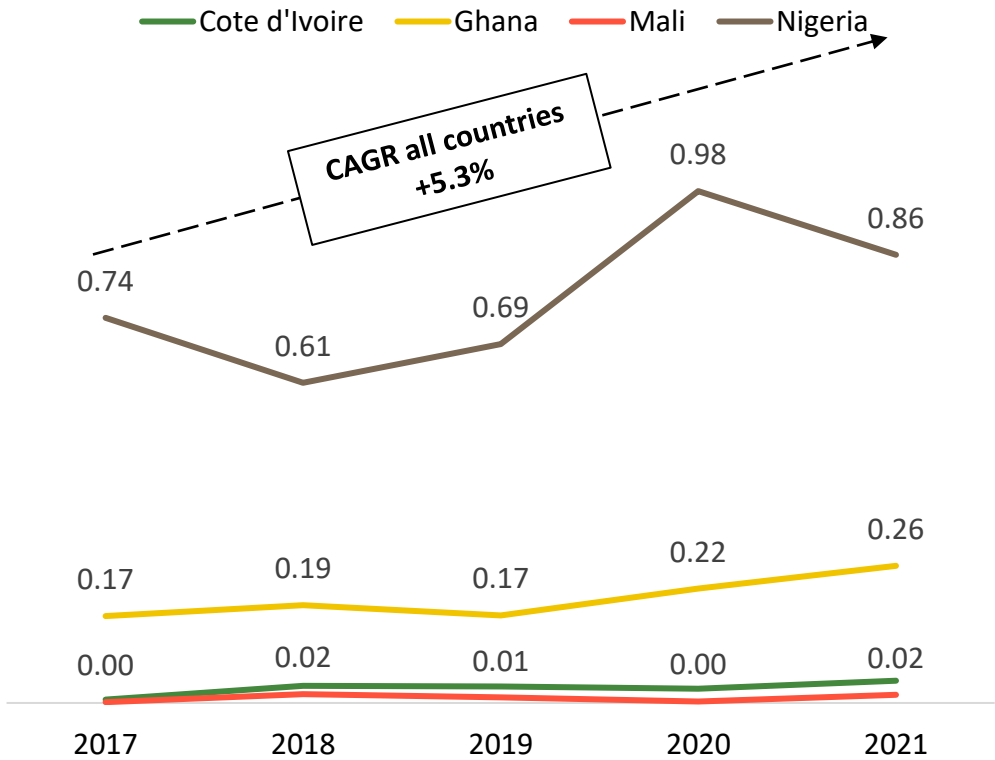
The demand of leaf springs and coil springs has grown by 24% and +5% respectively; Nigeria and Ghana are the top markets for leaf and coil springs

Annual import demand for leaf springs  
(2017 - 2021, in million of kg)



HS code: 732010

Annual import demand for coil springs  
(2017 - 2021, in million of kg)

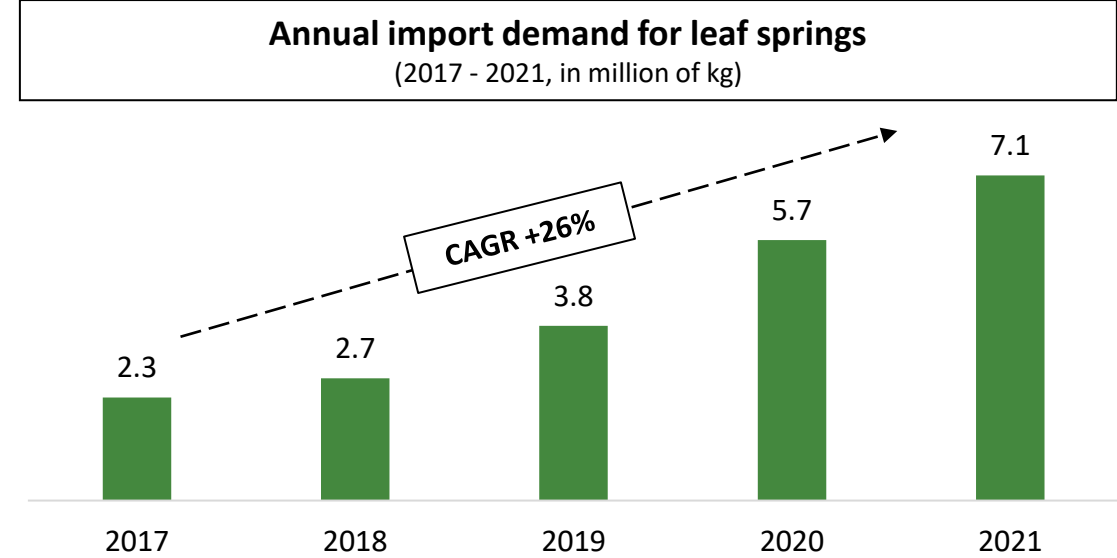


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The data does not include locally produced or “repaired.”

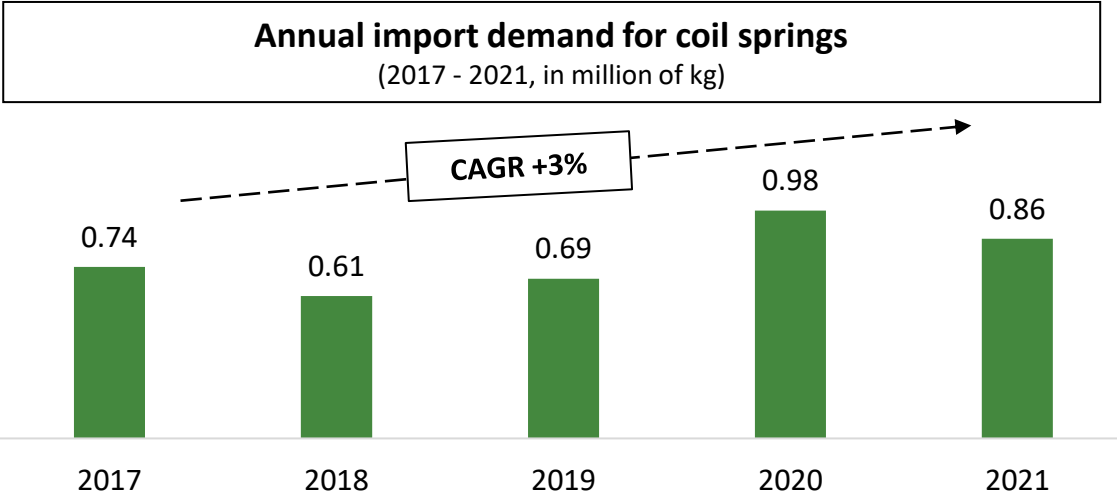
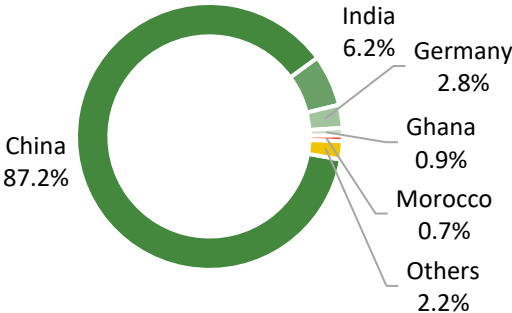


Nigeria’s import demand of leaf springs has grown exponentially since 2017; China and India are the key suppliers



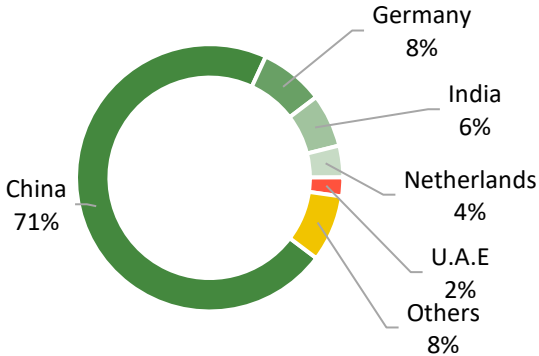
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**Country of origin of leaf springs**  
(2017 - 2021, in %)



HS code: 732020

**Country of origin of coil springs**  
(2017 - 2021, in %)

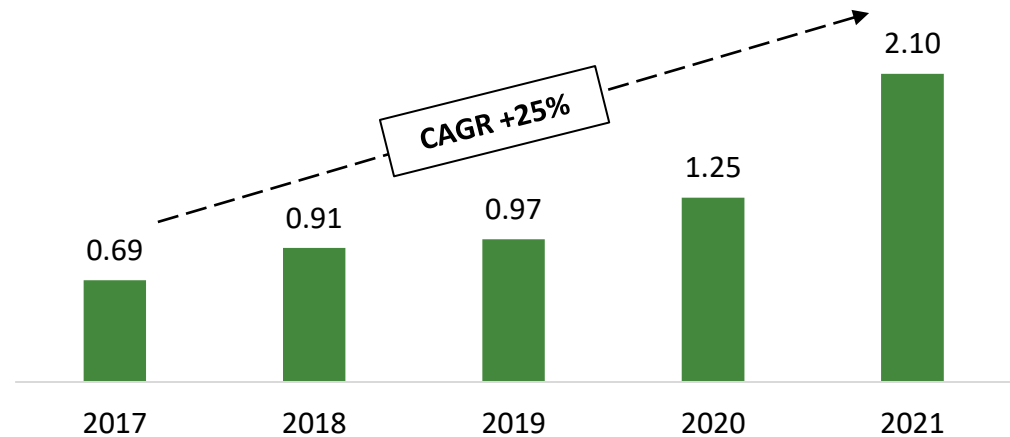






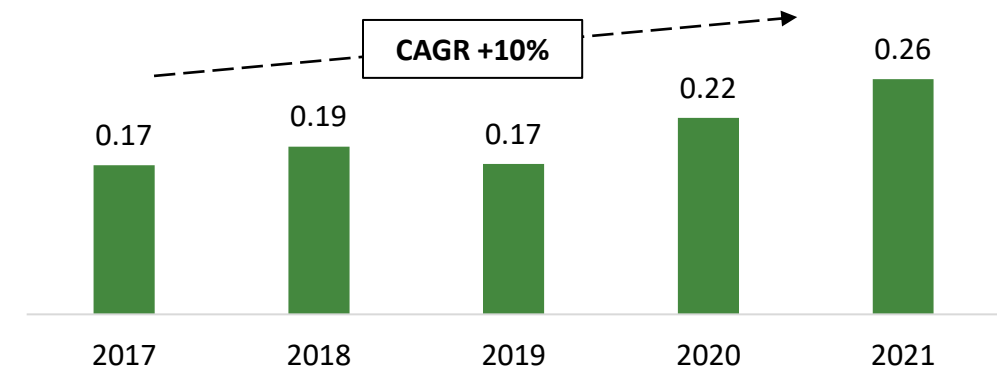
The import demand of leaf and coil springs in Ghana has shown consistent growth over the last five years with China being the key exporter partner

Annual demand for leaf springs  
(2017 - 2021, in million of kg)



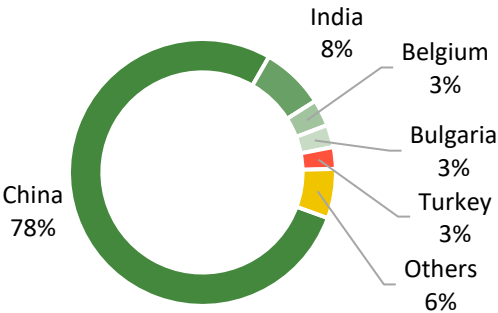
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Annual demand for coil springs  
(2017 - 2021, in million of kg)

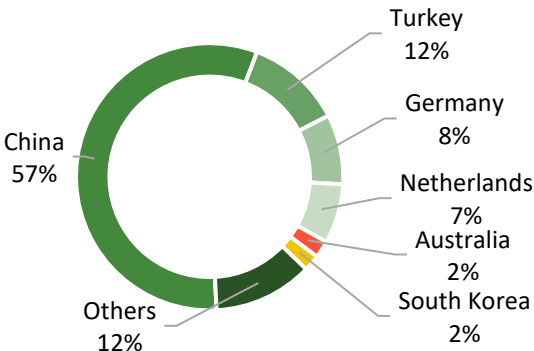


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Country of origin of leaf springs  
(2017 - 2021, in %)



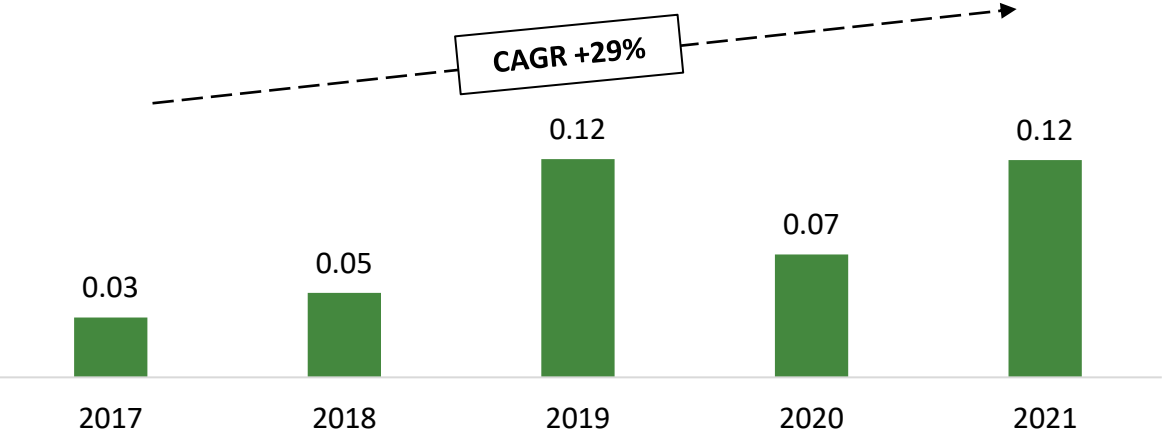
Country of origin of coil springs  
(2017 - 2021, in %)





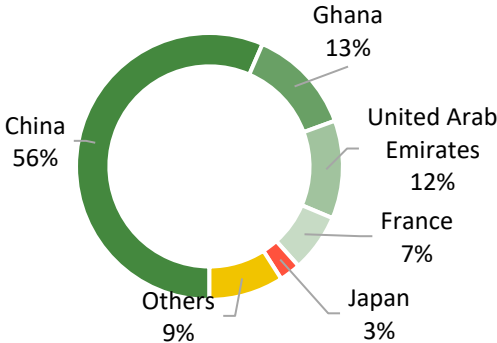
Leaf and coil spring demand has grown at CAGR of 17% and 34% respectively and China has been the major supplier of both products

Annual demand for leaf springs  
(2017 - 2021, in million of kg)

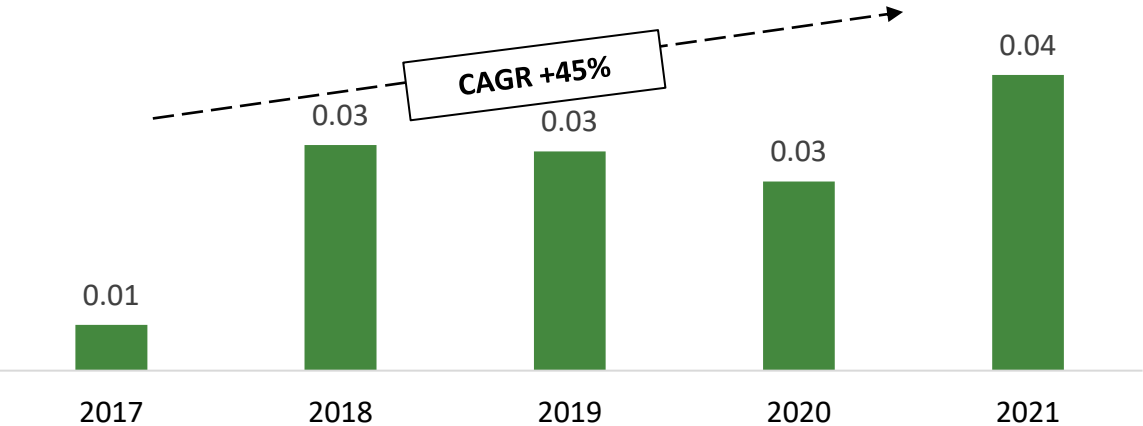


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Country of origin of leaf springs  
(2017 - 2021, in %)

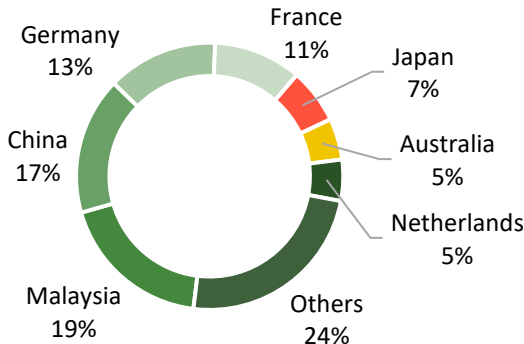


Annual demand for coil springs  
(2017 - 2021, in million of kg)



HS code: 732020

Country of origin of coil springs  
(2017 - 2021, in %)

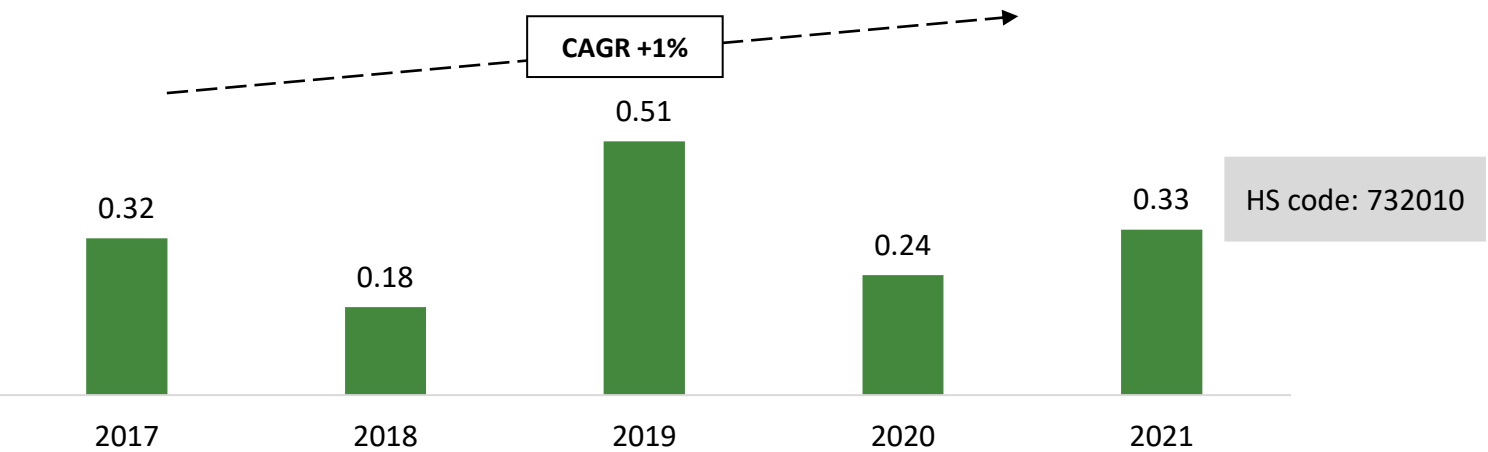




Most leaf springs imported into Mali originates from China whiles coil springs originates from Germany

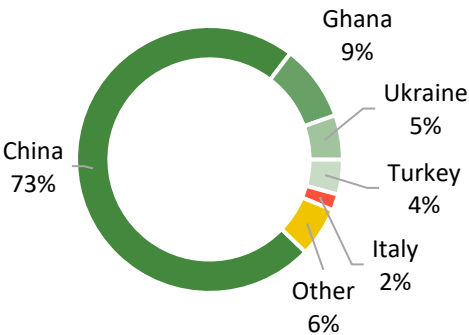
Annual demand for leaf springs

(2017 - 2021, in million of kg)



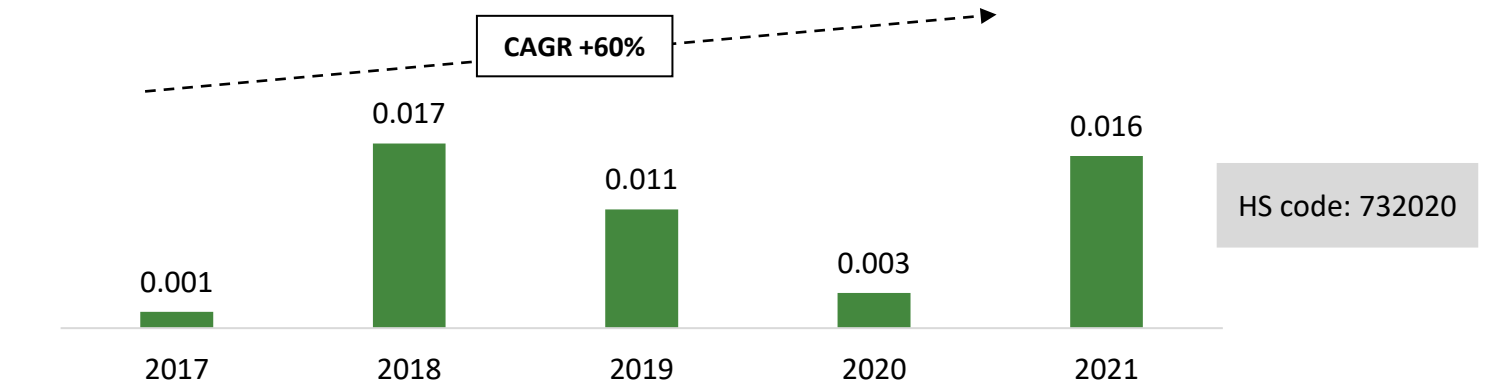
Country of origin of leaf springs

(2017 - 2021, in %)



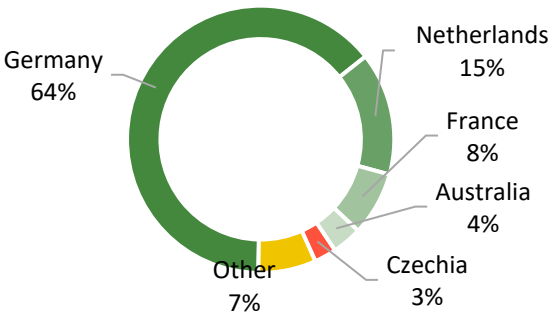
Annual demand for coil springs

(2017 - 2021, in million of kg)



Country of origin of coil springs

(2017 - 2021, in %)



## Quality, distribution and pricing are considered key areas to make use of opportunities in West Africa's automotive industry.

"A herculean challenge for a made-in-Ghana spring manufacturer will be standardization. The manufacturer must prove to distributors that its products **meet global standards**"

**CEO, SKA Step by Step Motors Ghana**

"For us to import from Ghana, our only concern will be the **quality of the products** supplied. The products quality will have to be comparable to those we currently import from China "

**Manager, Real-goes Nigeria Limited - Nigeria**

"The Nigerian market has a huge potential for automotive component producers. Companies interested in the market must have a **local office**, proactively set up **distribution networks** and have **competitive pricing** "

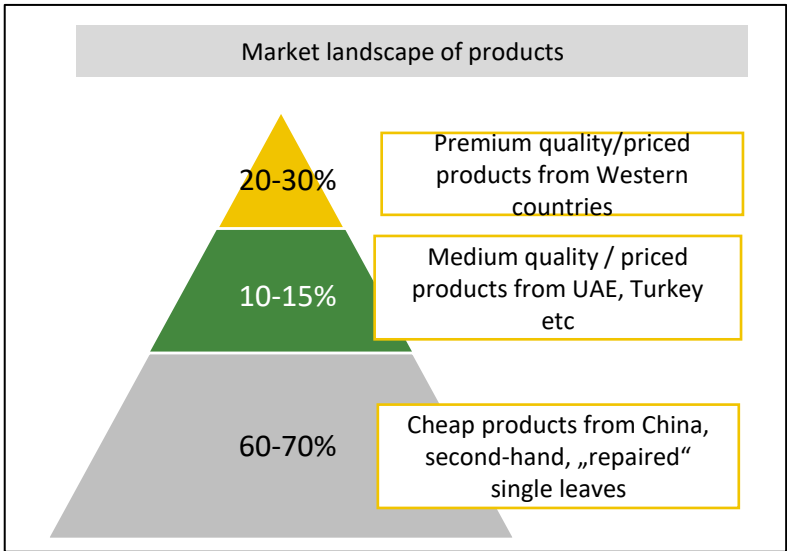
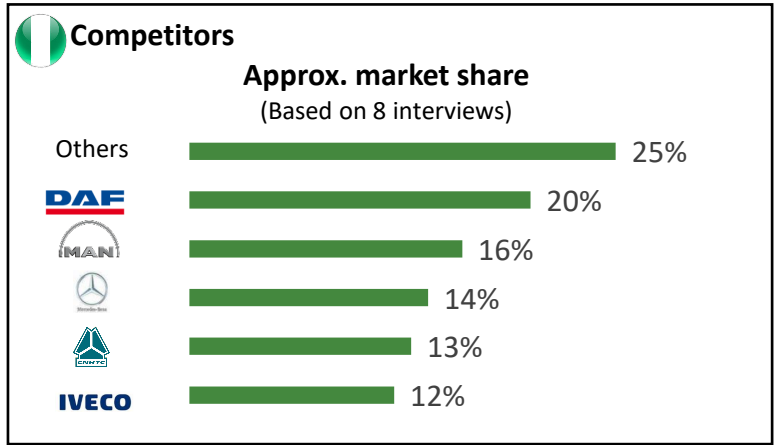
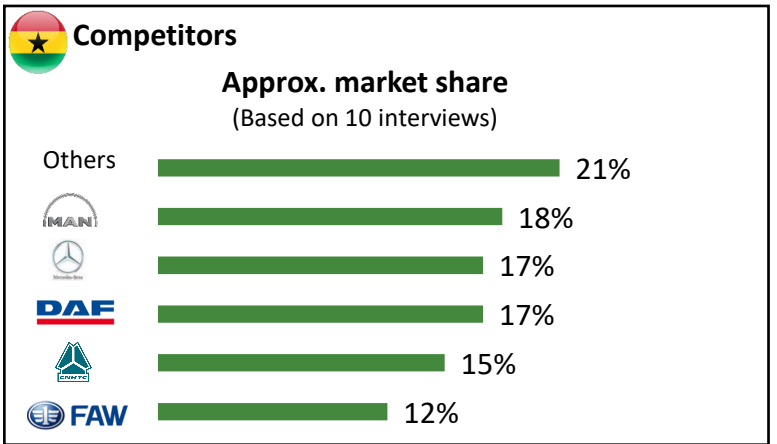
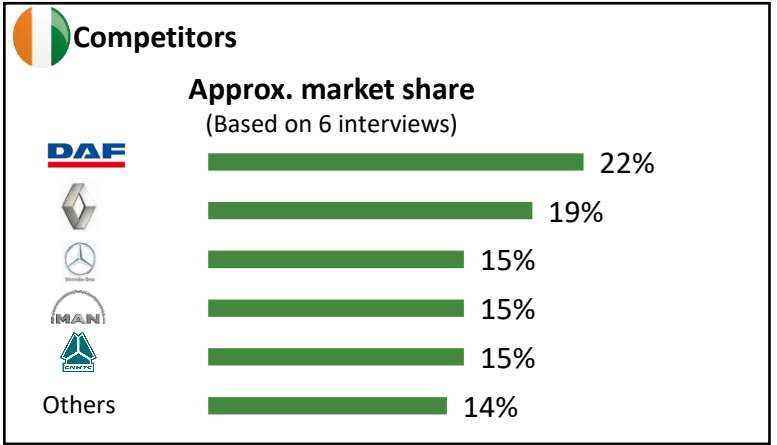
**CEO, JuSt Commercial Vehicles Ltd, Nigeria**

"We expect the **market for leaf springs to continue growing** due to the expansion of the construction and agriculture sectors in the country "

**CEO, GAAP Autos, Cote D'Ivoire**








## 5. Competitive environment

Distributors interviewed supply leaf springs for popular brands such as DAF, MAN and Mercedes Benz; most are manufactured by Chinese producers.



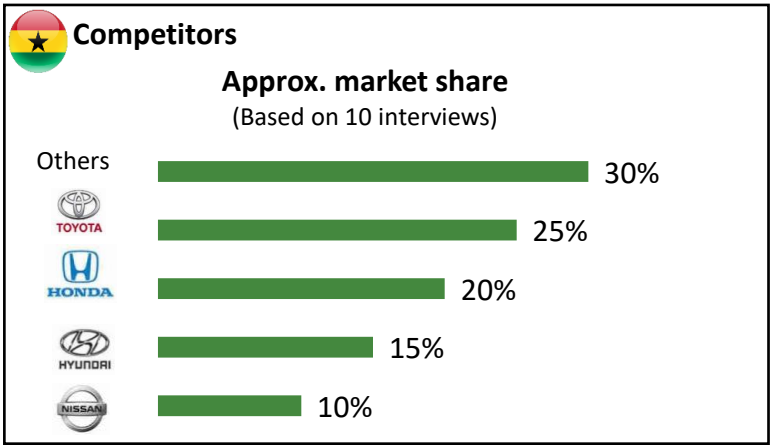
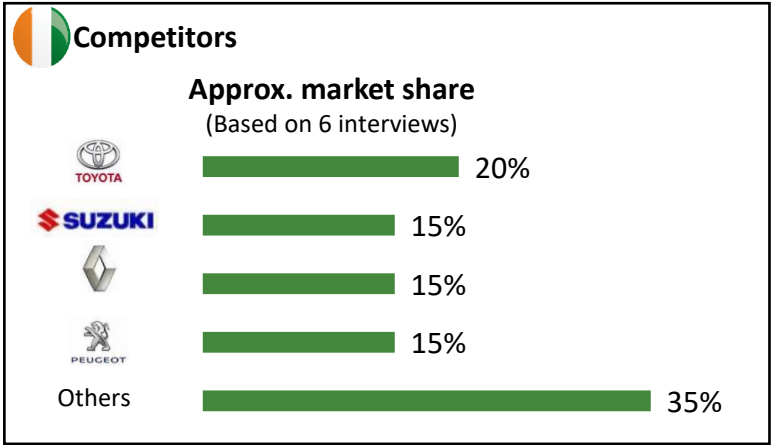
Note: estimations done based on the qualitative data analysis

**End users mostly purchase leaf springs by the type of truck and not by the brand of the manufacturer. Local production is relatively small.**

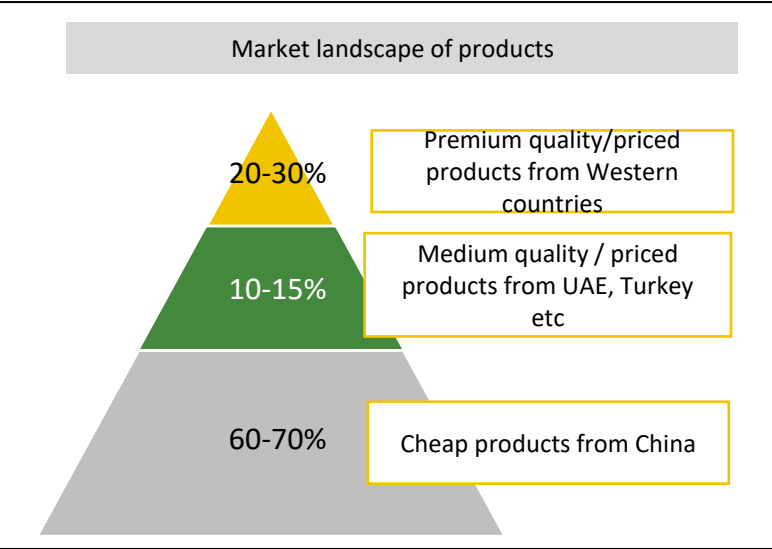
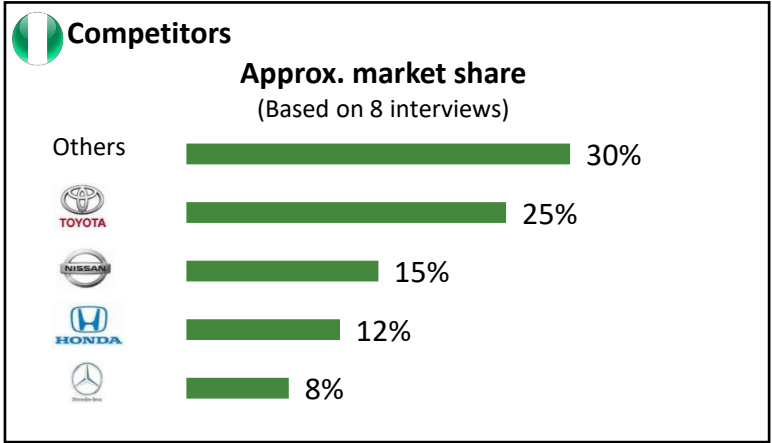
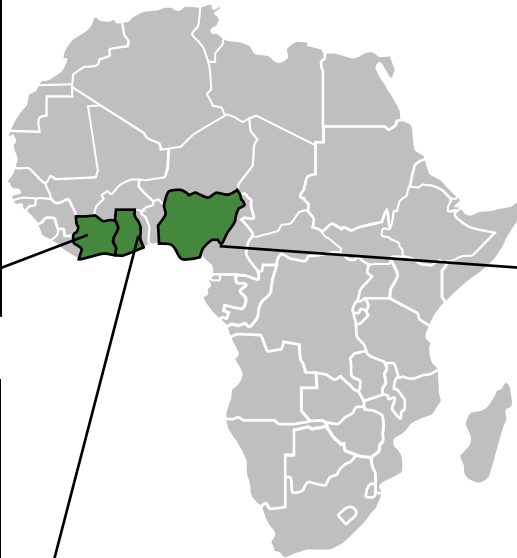
<u>Active spring supplier in West Africa</u>	<u>Type</u>	<u>Product portfolio</u>		<u>Country of Origin</u>	<u>Comments</u>
Zonda Tec Ghana	Distributor	Leaf springs, trucks, trailers		Ghana	Local assembler of Sino/Howo trucks in Ghana. Also supplies spare parts of trucks
Sivoko Group	Manufacturer	Leaf springs, bolts, nuts, U bolts etc		Ghana	Annually produces 42,000MT of leaf springs for Ghana and other markets
Springs and Bolt Ltd	Manufacturer	U-bolts, leaf springs, trailer suspension parts and axles Spare parts for Scania, Volvo, Mercedes, MAN, DAF, sinotruk, Shaanxi, FAW, JAC, Dongfeng, Foton trucks		Ghana	Total output of all products in 2020 was 560,615 tonnes
Shandong Chuang Sheng International	Distributor			China	Shandong has an extensive reach in markets such as Nigeria and Ghana
Bhasin Auto Spare Parts Trading	Manufacturer	manufactures conventional and parabolic leaf springs		Dubai	Specialist in trucks and light commercial vehicles suspensions.
STR Automotive	Manufacturer	manufactures conventional and parabolic leaf springs		Turkey	Manufactures all kinds of leaf springs for all vehicles
EFS Elite	Manufacturer	Leaf springs, coil springs and other suspension spare parts		Australia	Manufacturer of 4x4 spare spares
Local blacksmith	Workshop	Remodel broken springs for mostly old trucks		Available in all countries	

Except for Ghana, there are no other local producers of leaf and coil springs in Cote D'Ivoire and Nigeria.

Since the three markets are dominated by Japanese light vehicles, most coil springs are demanded by these brands



Note: estimations done based on the qualitative data analysis

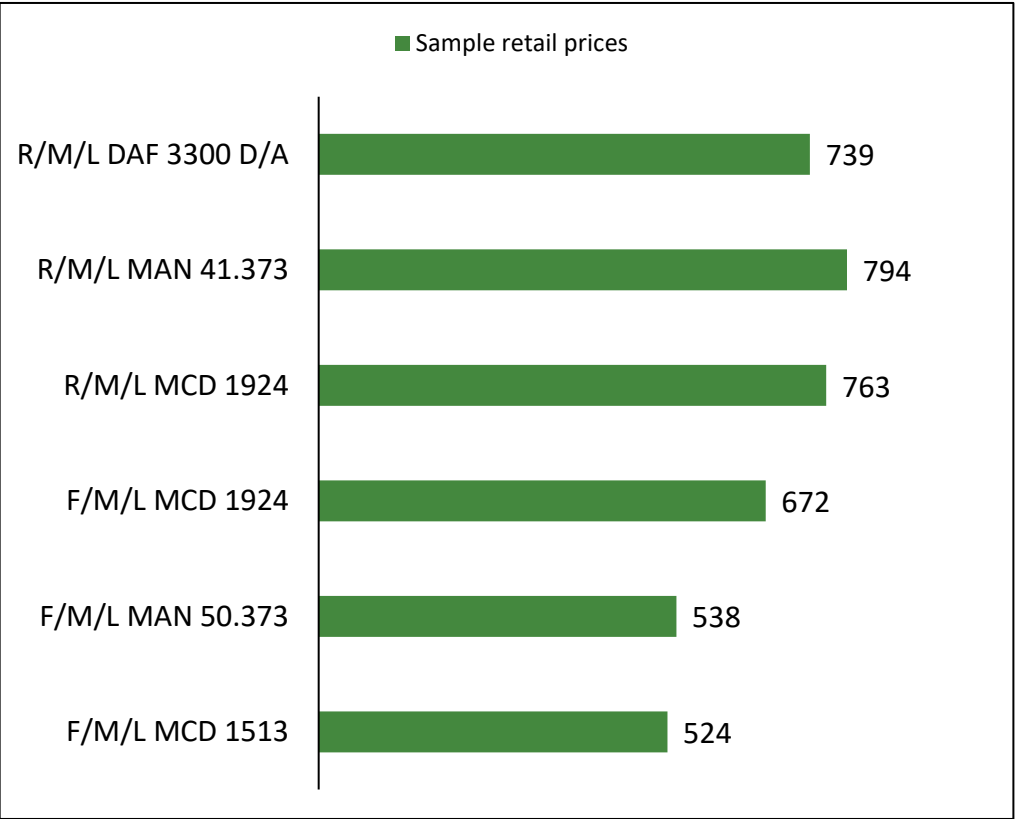




## 6. Product pricing

Premium-priced springs from OEMs and automotive showrooms are 2x higher than the open market prices

Average prices of single leaves springs  
(2022, in GHS, retail price, incl. VAT)

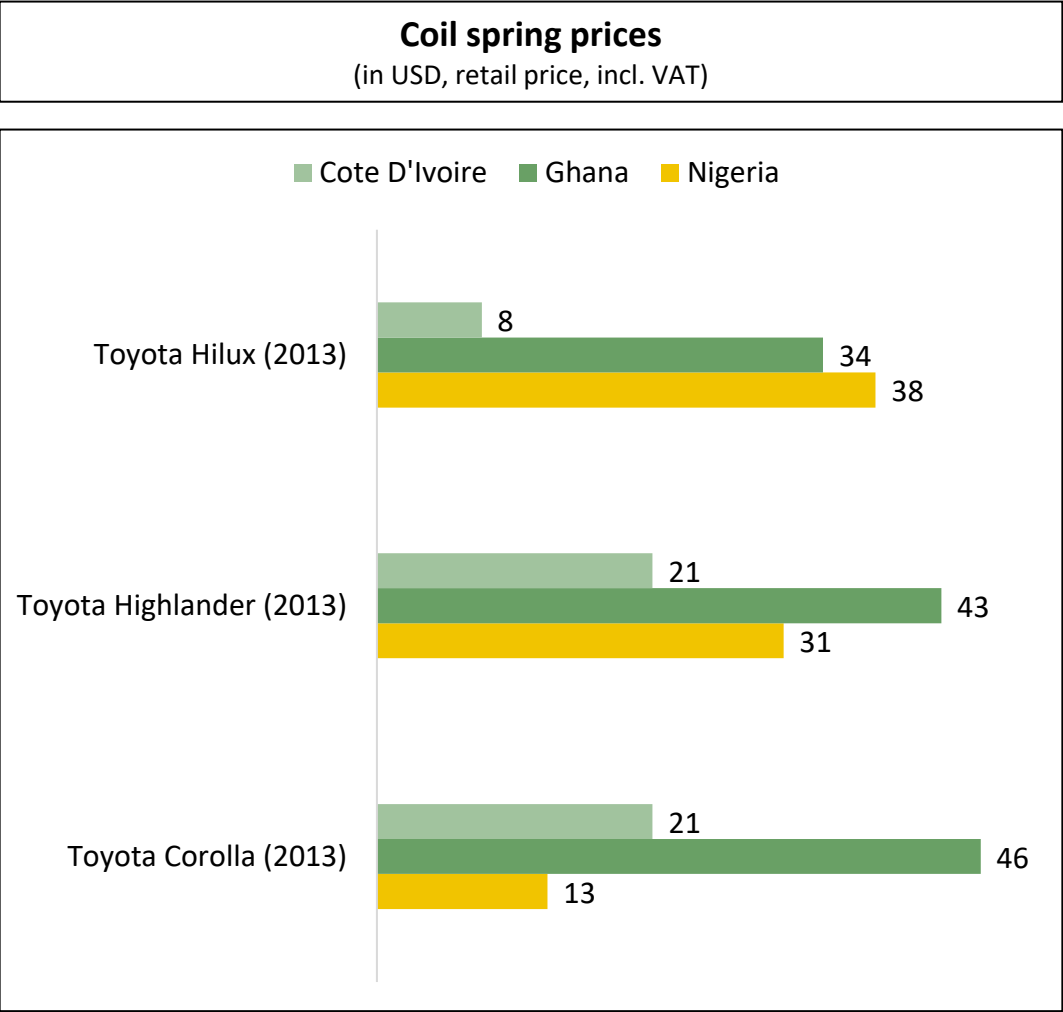


Average prices of full assembly leaf springs  
(2022, in GHS, retail price, incl. VAT)



Prices of springs (mostly Chinese-made) on the open market are cheaper than locally produced springs since the Chinese state subsidizes the steel industry.

Prices for coil springs in Nigeria are higher than in Ghana and Cote D'Ivoire



## 7. Recommendations

## For the automotive component industry to flourish, an enabling business environment and some form of protectionist policies are needed

Key area	Comment
<b>Protecting local manufacturers</b>	<ul style="list-style-type: none"> <li>The influx of cheap / low-quality Chinese products on the market is a setback to developing an automotive value chain since it crowds out the market size for local manufacturers.</li> <li>The state needs to limit the importation of automotive components by hiking import tariffs on products from Asia with concessions for local manufacturers.</li> </ul>
<b>A proper and functioning regulatory regime</b>	<ul style="list-style-type: none"> <li>A stable and predictable legislation/regulation environment is required. More plannability is needed to attract especially European investors. One barrier that limited the development of the automotive industry in Nigeria was the sudden change of import duties on foreign vehicles from initially 70% to 35%, which currently stands at 5%.</li> <li>Regulators should ensure that imported components meet standards. This creates a loss of goodwill in the market</li> </ul>
<b>Development of raw material value chain</b>	<ul style="list-style-type: none"> <li>Development of Ghana of the raw material value chain such as steel, aluminum and plastic which the country has a competitive edge has the potential to move up the growth of the automotive industry</li> <li>The establishment of the Ghana Integrated Iron and Steel Development Corporation is a positive development and will be instrumental to the development of the industry.</li> </ul>
<b>Skills development</b>	<ul style="list-style-type: none"> <li>The burgeoning automotive industry will require technically skilled people in the production process. Since technical skills in the automotive sector are limited, it will of utmost importance for the industry to partner with academia to develop critical skills for the industry.</li> <li>Training of female workforce - see slide 40</li> </ul>
<b>Access of finance</b>	<ul style="list-style-type: none"> <li>Long term financing is needed for local producers in the value chain to expand production, create economies of scale and take advantage of the business opportunities in the regional African markets</li> </ul>
<b>Regional integration</b>	<ul style="list-style-type: none"> <li>Ghana as a key member of ECOWAS and the AfCFTA should promote regional integration in Africa. This opens a critical market size for local production. Easily accessing both Francophone and Anglophone ECOWAS markets will improve the bottom line of manufacturers. It is relatively easy for member countries of the East Africa community to trade</li> </ul>

## Female participation in the industry can be improved through measures along the talent / HR funnel.

### Status quo of female employment in the West African automotive value chain:

- Low overall participation of women
- If/where women are involved, it is often at lower hierarchy levels and/or only in certain functions (e.g. HR, receptionists, front desk retail) and industry segments (e.g. Vehicle sales rather than repair services)

### Potential areas for interventions

#### Getting women interested in the industry

- **Problem:** Most likely, relatively few women so far apply for automotive positions or found automotive businesses as the industry is perceived as a traditionally very male domain.
- **Potential solutions (examples):** outreach to female pupils to create awareness about the industry, liaise with associations that promote women in STEM, creating apprenticeships/internships/summer schools specifically for females

#### Hiring women / promoting female entrepreneurs

- **Problem:** Women may not be sufficiently considered for relevant (traditionally male dominated) positions by the employers.
- **Potential solutions (examples):** anti-bias trainings and awareness campaigns of successful female leaders in the industry; trainings for hiring managers; support female founders in the industry through networking, training or material support

#### Retaining and promoting women

- **Problem:** Once women are hired, their rise in company hierarchies may be slower than those of their male colleagues. Also, they may not be able to rise to the highest ranks of their organizations ("glass ceiling" / "leaking funnel")
- **Potential solutions (examples):** anti-bias / company culture trainings and awareness campaigns for leaders of the industry; incentivize higher shares of females in leadership roles; career development trainings for females

„Lady mechanics“  
is a Nigerian NGO  
promoting  
supporting female  
mechanics in  
Nigeria and West  
Africa

## These points are crucial for manufacturers to scale and expand their market share in West Africa.

Key area		Comment
	<b>Countries &amp; market potential</b>	<ul style="list-style-type: none"> <li>The total addressable market for single and full-assembly leaf replacement is at least 128,737 tons and 198,000 tons, respectively, per annum.</li> <li>The total accessible market size for premium and medium-priced single leaf replacements in the major countries is least 40,496 tons/year while for full-assembly leaf replacements is 62,174 tons/year</li> <li>Most of the regional market demand comes from Nigeria, Ghana and Cote D'Ivoire.</li> <li>Over the short to medium term, manufacturers have sufficient growth opportunities in Ghana. Developing regional exports would provide further opportunities but requires even lower prices to accommodate for transportation costs to e.g. CIV and Nigeria.</li> </ul>
	<b>Pricing</b>	<ul style="list-style-type: none"> <li>The West African market is price sensitive hence the preference of end users for Asian manufactured springs. Components manufacturers can utilize economies of scale by using more advanced machinery like Asian producers on price.</li> </ul>
	<b>Quality</b>	<ul style="list-style-type: none"> <li>Especially on a regional level, buyers are concerned about the quality standards of a "made in Ghana" products. Obtaining international certifications may help to address these issues.</li> </ul>
	<b>Engagement in policy development</b>	<ul style="list-style-type: none"> <li>Original Equipment Manufacturers and other stakeholders must collaborate and engage policymakers in the formulation of policies which will create an enabling environment for the sector. Evidence from South Africa shows that a thriving automotive ecosystem occurs when both manufacturers and country's interest are aligned</li> </ul>

# Questions?

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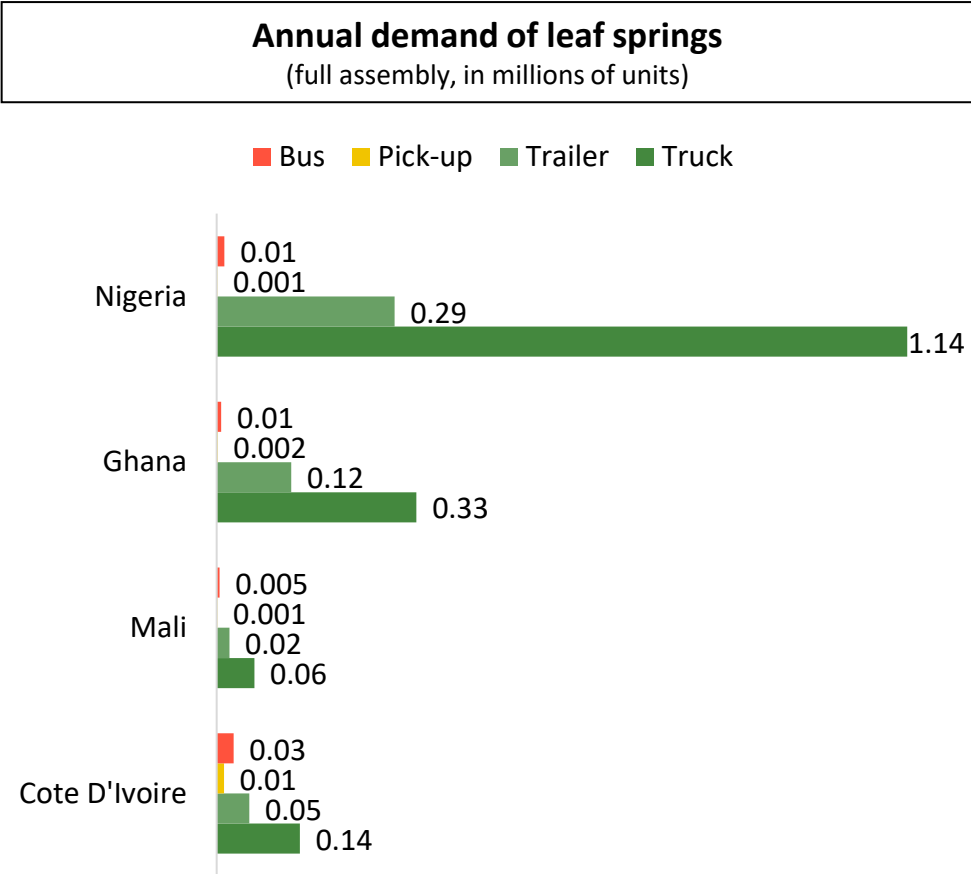
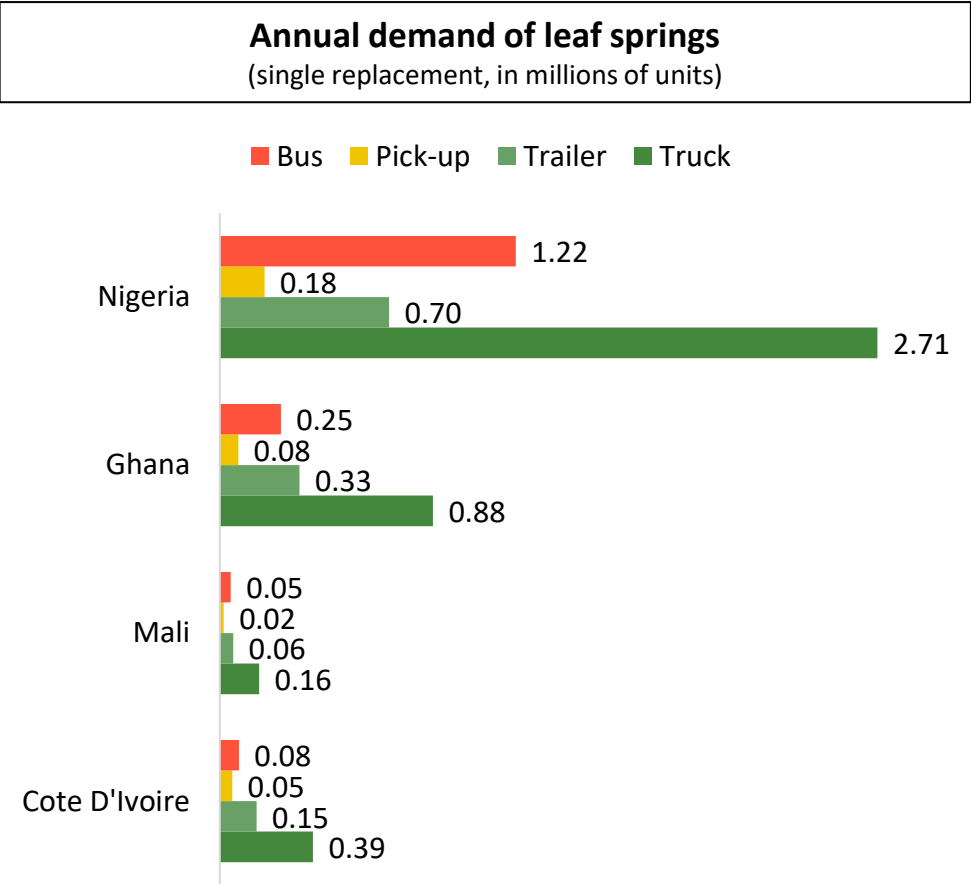
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## 8. Additional information

Across the four markets, the total addressable market is approximately 9 million units of leaf springs

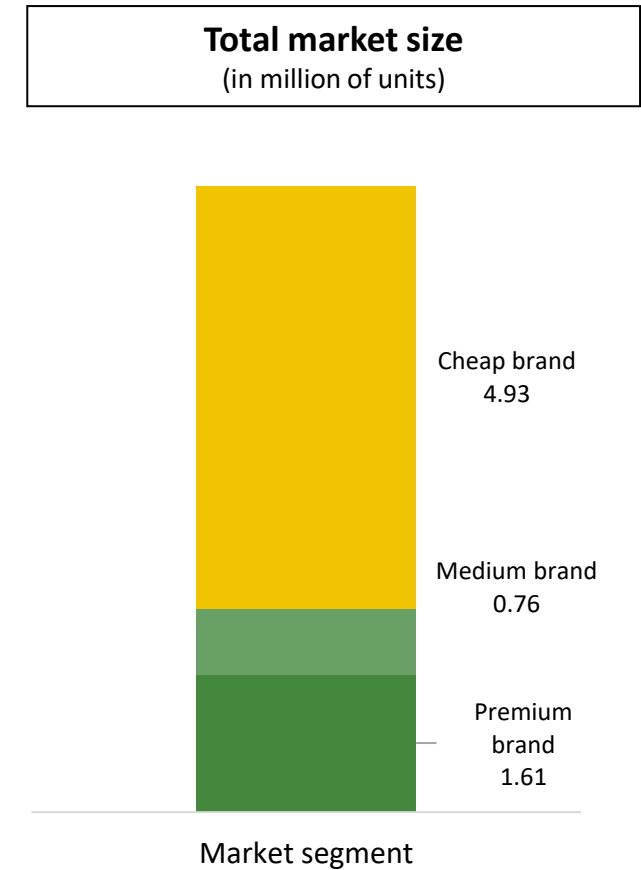
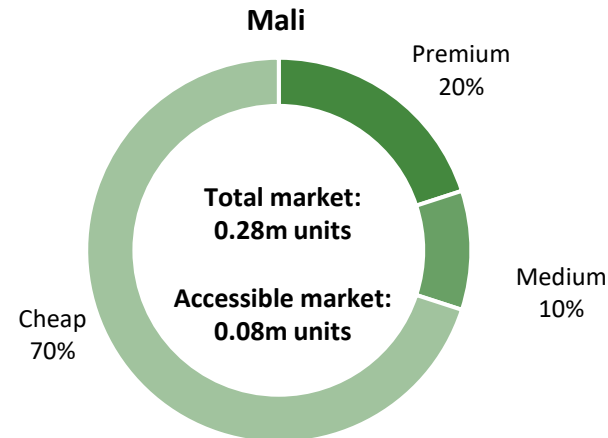
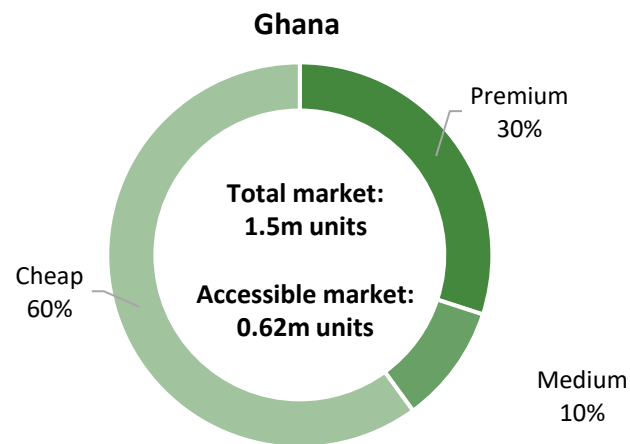
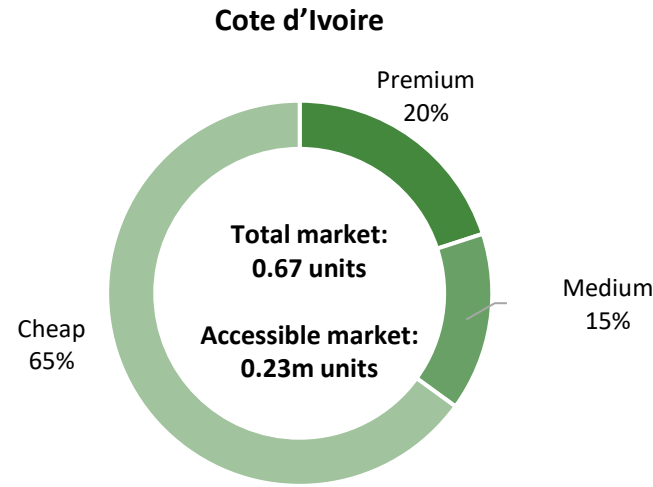
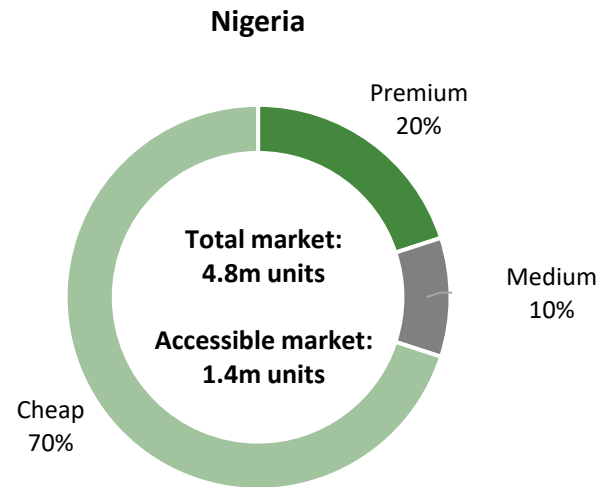


Market sizes are calculated with the **vehicle parc, the number of axles, and the replacement rate**. Detailed calculation is available on demand.

The total accessible market size for premium and medium-priced single leaf replacements in the major countries is above 2.3 million units per year

Single leaves (in units)

Leaf spring segments per country



## The total accessible market size for premium and medium-priced single leaf replacements in the major countries is at least 0.74 million units per year

Leaf spring segments per country

Full assemblies (in units)

