Steel demand in sub-Saharan Africa

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Content

- Role of steel industry in a modern economy
- Overview of sub-Saharan Africa
- Steel demand of sub-Saharan Africa’s countries
- Summary
Role of steel industry in a modern economy
Steel is everywhere in your life
Steel: A key driver of the world’s economy
Sustainable steel: steel at the heart of the green economy
Role of World Steel Association

- worldsteel members produce around 85% of the world’s steel
- More than 160 Members, with HQs are located in over 50 countries
- 17 of the world’s 20 largest companies are members
- The World Steel Association acts as the focal point for the steel industry.

- worldsteel provides global leadership on all major strategic issues affecting the industry, particularly focusing on economic, environmental and social sustainability.
- worldsteel promotes steel and the steel industry to customers, the industry, media, financial markets and the general public.
- worldsteel assists its members to develop the market for steel, managing major projects in a range of industry sectors.
Overview of sub-Saharan Africa
Strong growth of population

- Sub-Saharan Africa\(^1\) was inhabited by 810 million people in 2012, which represents 11.5% of World total
- Strong population growth in recent years
- Low urbanisation rate and slower urbanisation growth in recent years than world average

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Population growth in 2000’s
CAGR 2000-2012, %

Urbanisation rate in 2012
Urban population as % of total population

Change of urbanisation rate in 2000’s
Change of urbanisation rate in 2000-2012, ∆ %

1) World Bank sub-Saharan Africa All Income Levels definition excluding South Africa, Sudan and South Sudan, 2012
Source: World Bank
Low income levels but with strong growths

- Low income level in sub-Saharan Africa
- Countries with lowest urbanisation rate have lowest GDP per capita
- Strong GDP growth
- Strong investments growth

Source: World Bank, Global Insight
Investments and urbanisation relations

Investments growth: current USD, World Bank, CAGR 2000-2012, %

Urbanisation rate change: World Bank, change of urbanisation rate in 2000-2012, Δ %

Size of bubbles: investments current USD, World Bank, yearly average 2000-2012, bn USD

Source: World Bank, worldsteel
Steel demand of sub-Saharan Africa’s countries
Regional breakdown of steel demand

- Regional structure of steel demand has changed dramatically since 2000
  - Expansion of steel demand in developing world leading by growth of China
  - Development of MENA and ASEAN countries

Steel demand development in 1950-2012
Apparent steel use, crude steel equivalent, million tonnes (Mt)

Regional share in World steel demand
Apparent steel use, finished steel, %

Source: worldsteel
Estimation of steel demand, data requirements

- Volume data required expressed in tonnes

- Production
  - It is assumed that sub-Saharan Africa’s counties production is very small compared to steel demand
  - Accessibility issue; estimated for many countries
  - Steel demand depends largely on net imports of steel products

- Steel trade data
  - Steel imports and exports data are very often not available in UN Comtrade
  - Mirror statistics

- Steel containing goods trade data
  - As in case of steel trade data
Increasing imports to sub-Saharan Africa’s

- All sub-Saharan Africa’s countries are net importers of steel products
- Net import of steel products doubled in period from 2006 to 2012
- Top 5 net importers had 58% share in the total net imports

### Net imports of sub-Saharan Africa

**Mirror statistics, finished steel products, 2006-2012, million tonnes (Mt)**

- Angola
- Ethiopia
- Kenya
- Nigeria
- Sub-Saharan Africa, rsh

![Graph of net imports](image)

### Share in sub-Saharan Africa’s net imports

**Mirror statistics, finished steel products, 2012, %**

- Angola 12%
- Cameroon 3%
- Ethiopia 8%
- Ghana 8%
- Ivory Coast 2%
- Kenya 10%
- Mozambique 3%
- Other 25%
- Tanzania 5%
- Senegal 4%
- Nigeria 20%

Source: ISSB, worldsteel
Different sources, different results, alike trend

- Comparison of ISSB mirror statistics with UN Comtrade and UN Comtrade mirror statistics gives different data, but similar trend
- UN Comtrade mirror statistics seems to cover bigger share of the market
- Samples shows good fit to price trend

**Net imports of sub-Saharan Africa, different sources**
*Finished steel products, 2006-2012, million tonnes (Mt)*

**Prices of steel products**
*Rebars (SBB, imports, cfr Gulf States) and HS-6 721200 (UN Comtrade, imports), 2006-2012, USD/tonne*

Source: ISSB, UN Comtrade, SBB, worldsteel
Estimation of steel demand, limitations

- Mirror statistics used for many of sub-Saharan Africa’s countries
  - trade statistics is not always precisely declared by countries for which steel demand is estimated
  - trade between sub-Saharan Africa’s countries is not available
- Steel demand figure for the whole region is more precise than for individual countries
- Missing production estimation, rather small facilities
- Desirable to improve quality of reporting countries trade data to avoid necessity of using mirror statistics
Very low level of steel demand per capita

- Only 11 kg of steel products were used per person in 2012
  - World average: 220 kg, Developing Economies excl. China: 92 kg
- Urbanisation is not contributing to steel demand yet

**Steel demand per capita**

Apparent steel use, finished steel per capita, kilogrammes, 2012

- < 10 kg
- 10-30 kg
- > 30 kg

**Urbanisation vs steel demand**

Urban population as % of total population, 2010
Apparent steel use, crude steel equivalent per capita, kilogrammes, 2010

Source: World Bank, United Nations, worldsteel
Low steel intensity of GDP, lagging logistics

- Steel intensity in sub-Saharan Africa is much lower than in World’s average, especially taking into account high dynamics of GDP
- Steel intensity in sub-Saharan Africa is increasing fast only in a few countries
  - Possibility of steel demand being underestimated
  - Other factors, e.g. inefficient logistics not supportive for steel demand

Source: World Bank, worldsteel
Data range used for presented analysis

- Set of macroeconomic variables which set a background for steel industry analysis
  - different sources

- Volume data, steel demand calculation: steel production, steel trade, indirect steel trade
  - worldsteel sources
  - UN Comtrade, trade data
    - country coverage, frequency, data quality
  - other providers, e.g. trade data, raw materials production
Summary

- Volume data are fundamental for steel market analysis
  - production, trade, demand, raw materials, capacity
- Frequency of data
  - monthly preferable
  - provided on regular basis
  - as close to reported period
- Data quality is essential
- Tight cooperation between providers and end-users of trade data for better understanding of needs and limitations