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### **Economic and Social Commission for Western Asia**



# TRADE PERFORMANCE AND STRUCTURE PROFILES<sup>1</sup>

# Sudan

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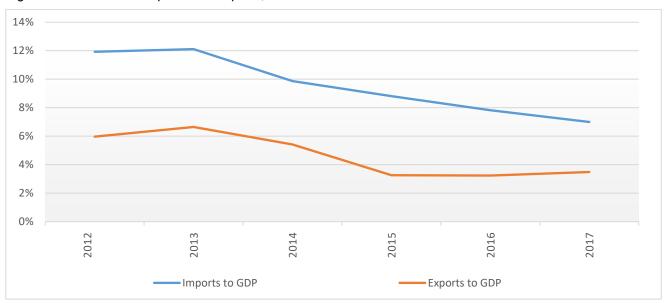
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# TRADE PERFORMANCE AND STRUCTURE PROFILES: SUDAN

Sudan's performance in merchandise and services trade and attracting foreign direct investment has been subpar and appears to be deteriorating as of late. Sudan's merchandise exports and imports have been losing their relative importance since 2013 and its trade in services has not only been meager but has been declining. Sudan has not been particularly successful in attracting FDI, with net FDI inflows mostly declining since 2012. Main destinations for Sudan's exports have been PAFTA countries, as well as China, India and Japan. PAFTA and sub-Saharan African countries hold relatively favorable prospects for the exports of Sudan, which have been diversified to some extent.

#### I. Trends in Trade and Investment

Figure 1: Merchandise Exports and Imports, as a share of GDP



Source: ESCWA calculations using the World Development Indicators database (accessed October 2018).

Sudan's merchandise exports and imports as a share of GDP have not been particularly high. Nevertheless, they have experienced a relatively sizable decline since 2013.

0.0006

0.0005

0.0004

0.0003

0.0002

0.0001

0 2012 2013 2014 2015 2016 2017

Share in world exports share in world imports

Figure 2: Sudan's Share in World's Exports and Imports

Source: ESCWA calculations using the World Development Indicators database (accessed October 2018).

Sudan's export share in world merchandise export has swung both up and down, and currently stands at a level close to the one materialized in 2012. Sudan's share in world merchandise imports has hovered around 0.05%.

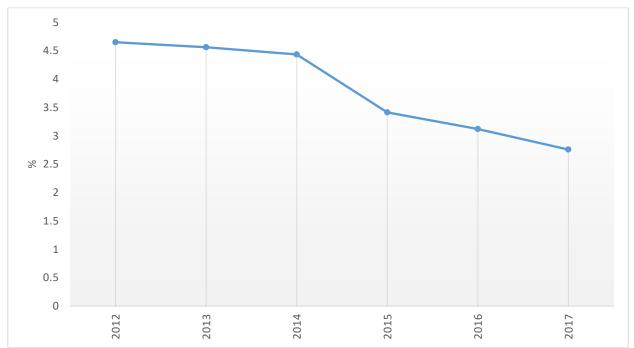
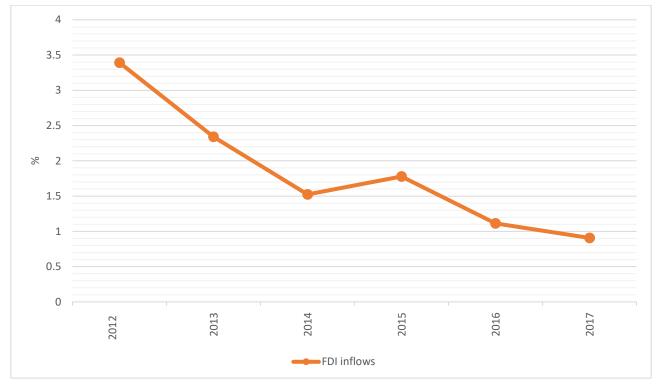


Figure 3: Sudan's Services Trade, 2012-2017, as a share of GDP

Source: ESCWA calculations using the World Development Indicators database (accessed October 2018).

Sudan's services trade as a share of GDP has slackened since 2013, from an already extremely low level in 2013.

Figure 4: FDI net inflows, 2012-2017, as a percent of GDP



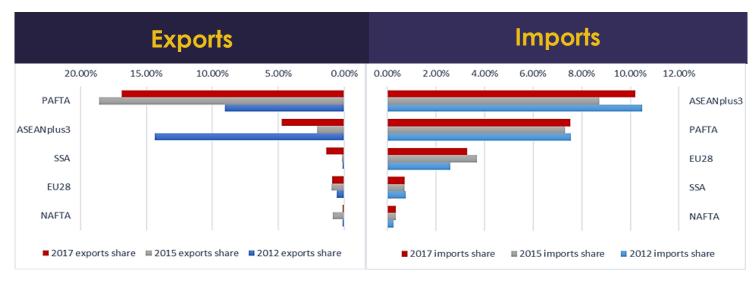
Source: ESCWA calculations using the World Development Indicators database (accessed October 2018).

Net FDI inflows in Sudan has come down significantly since 2013. The pace of slowdown appears to have moderated since 2014.

### II. Merchandise trade structure and indicators performance

This section assesses the trade performance and structure of Sudan, employing a range of indicators and indices created using highly disaggregated product-level data.

Figure 5: Top export destinations and import sources, as a share of total exports and imports, 2017

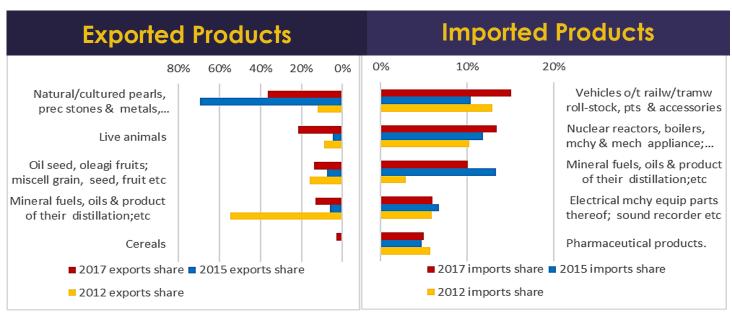


Source: ESCWA calculations using COMTRADE data (accessed October 2018).

The top destination for Sudan's exports is PAFTA since 2015, overtaking ASEAN+++. While ASEAN+++remains the second most important export destination for Sudan, it has a much lower share. Sudan's top import source blocs on the other hand has not changed in the past five years and their shares changed little.

ASEAN+++ has been and remains the top import source for Sudan as a bloc, followed by PAFTA and EU.

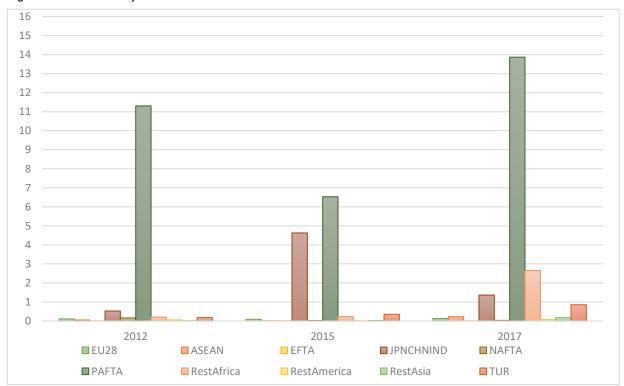
Figure 6: Top products exported and imported, 2016 (as a share of exports and imports)



Source: ESCWA calculations using COMTRADE data (accessed October 2018).

Natural or cultured pearls, precious or semi-precious stones have become the top exported product group of Sudan in 2015, followed by live animals and replacing mineral fuels, oils and their distillation products. Its share however appears to be rather volatile. On the top imported product groups side, vehicles and their parts and accessories tend to have the highest import share, followed by machinery and appliances, and mineral fuels and oils.

Figure 7: Trade Intensity Index



Source: ESCWA calculations based on COMTRADE data (accessed October 2018).

The trade intensity index captures whether the value of trade between a reporter and partner is greater or smaller than would be expected on the basis of their importance in world trade. Sudan has been trading intensively with PAFTA countries. The emergence sub-Saharan Africa as partner is also notable.

0.6

0.5

0.4

0.3

0.2

0.1

0

Restrict Restri

Figure 8: Trade Complementarity Index

Source: ESCWA calculations based on COMTRADE data (accessed October 2018).

The trade complementarity index captures how well the structures of a country's exports and its partner's imports match, showing the extent of prospects for further exchange. The index takes on the value zero when no goods are exported by one country or imported by the other and 1 when the export and import shares exactly match.

The index for Sudan attains relatively higher values with PAFTA and sub-Saharan African countries.

Figure 9: Hirschman-Herfindahl Index (bilateral export portfolio diversification)

Source: ESCWA calculations based on COMTRADE data (accessed October 2018).

Sudan's performance in diversifying its export portfolios, as measured by the Hirschman-Herfindahl Index, vis-à-vis selected partners is mixed. Sudan appears to have maintained a rather diversified export portfolio with sub-Saharan African countries and lately with PAFTA, EU, Latin America, and Turkey.

The Hirschman-Herfindahl Index captures how diversified a bilateral export portfolio is. A country with a perfectly diversified export portfolio will have an index close to zero, whereas a country which exports only one product would attain the value of unity (least diversified).

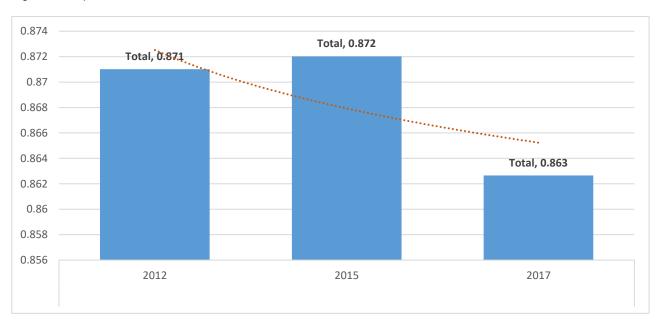


Figure 10: Export Diversification Index

Source: ESCWA calculations based on COMTRADE data (accessed October 2018).

The Export Diversification Index measures whether a country is highly dependent on relatively few products or its export portfolio is diversified. The lower the index, the less concentrated are a country's exports. As measured by this index, Sudan had managed to diversify its export portfolio since 2015, albeit to a limited extent.

0.002 Total, 0.0026
0.002 Total, 0.0018

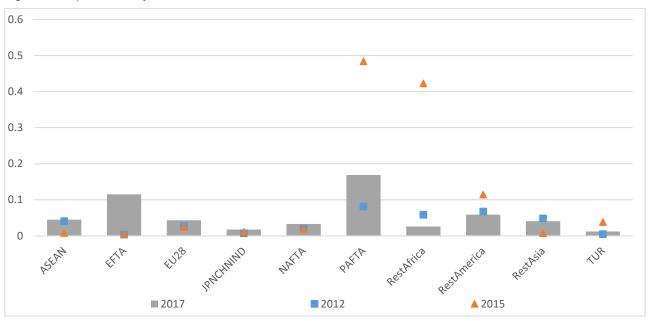
Total, 0.0016
0.001
0.0005
0
2012
2015
2017

Figure 11: Export Market Penetration Index

Source: ESCWA calculations based on COMTRADE data (accessed October 2018).

As measured by the Export Market Penetration index, Sudan's penetration into export markets had deteriorated between 2012 and 2015, before improving slightly between 2015 and 2017. The recovery however fell short of offsetting the prior decline. The index is essentially the share of the actual number of export relationships (at the country-product level) forged by the country in question in the maximum possible number of export relationships it can form given its exports.

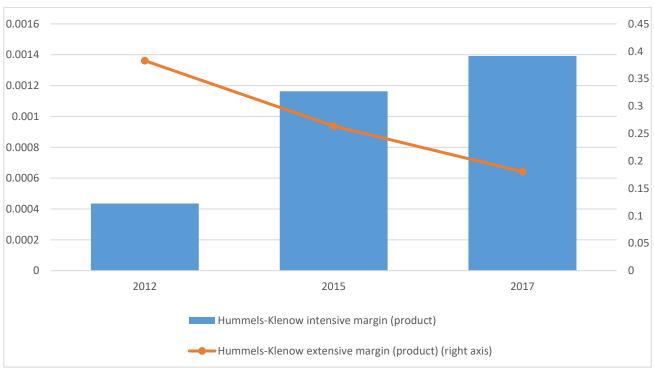
Figure 12: Export Similarity Index



Source: ESCWA calculations based on COMTRADE data (accessed October 2018).

The export similarity index captures the extent to which two entities in question are competitors in a common market. The index value of zero suggests that there is no competition between the two countries and of one that they are perfect competitors. Based on the export similarity index, Sudan's main competitors in world markets are PAFTA countries.

Figure 13: Hummels-Klenow intensive and extensive margins (product)



Source: ESCWA calculations based on COMTRADE data (accessed October 2018).

It is interesting to explore whether Sudan exports larger quantities or a greater variety of goods. To measure the first, the Hummels-Klenow intensive margin in products could be employed, which essentially captures the share of Sudan's exports in the world exports of products that Sudan exports. This index almost tripled between 2012 and 2016, albeit from a rather low level. Sudan experienced a drastic decrease in the share of the products it exports in total world exports of all goods, also referred to as the Hummels-Klenow extensive margin in products and gives an indication of how comprehensive the set of goods a country exports is.

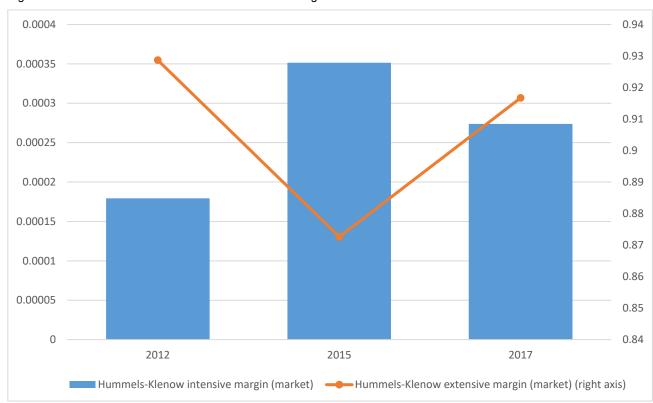


Figure 14: Hummels-Klenow intensive and extensive margins in markets

Source: ESCWA calculations based on COMTRADE data (accessed October 2018).

It is equally instructive to see as to whether Sudan exports larger amounts to its existing trade partners or expands into new markets. As a measure of the former, Sudan's share in the total world exports to only those countries that Sudan exports to, also referred to as the Hummels-Klenow intensive margin in markets, has gone up markedly between 2012 and 2015 but receded somewhat since then. Sudan has seen a decline between 2012 and 2015, which was followed by a recovery not completely offsetting the prior decline since then, in the share of the world exports to only those countries that Sudan exports to in total world exports of all goods, referred to as the Hummels-Klenow extensive margin in markets and captures the extent of expansion into new export markets..

0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0

Restrict
Restr

Figure 15: Intra-industry Trade Index

Source: ESCWA calculations based on COMTRADE data (accessed October 2018).

The intra-industry trade index measures the extent to which products that belong to the same industry were being traded between two countries, ranging between 0 and 1 and with values close to 1 corresponding to a high level of intra industry trade. Sudan had engaged in intra-industry trade mostly with sub-Saharan African countries, but it has been shifting toward PAFTA countries, and to some extent China, India and Japan.

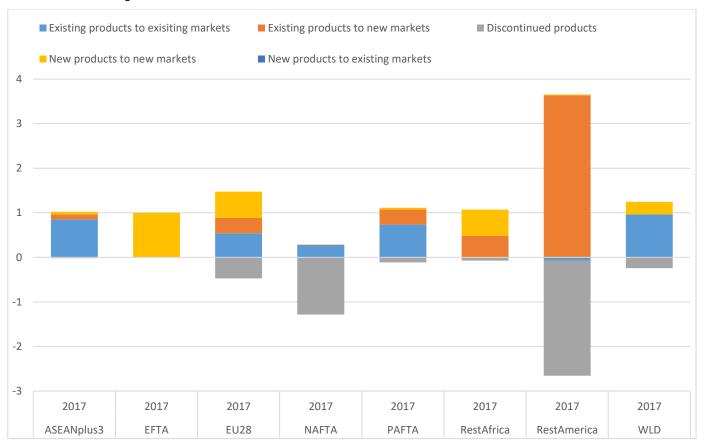


Figure 16: The composition of the change in bilateral merchandise exports between 2012 and 2017 along intensive and extensive margins

Source: ESCWA calculations using COMTRADE data (accessed October 2018).

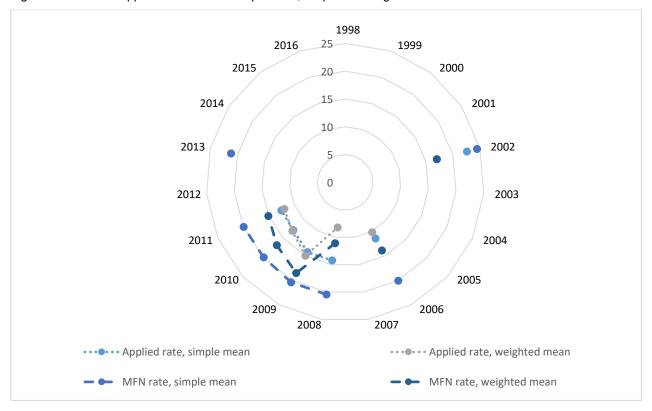
Notes: The abbreviations and the list of the countries included in each group are as follows. The Association of Southeast Asian Nations (ASEAN) is created using Indonesia, Malaysia, Philippines, Thailand, and Vietnam, not including Brunei, Cambodia, Laos, Myanmar, and Singapore. [to be completed]

Between 2012 and 2017, only very limited share of the change in the exports of Sudan has come from expanding into new products and/or markets. Across different destinations, American countries excluding NAFTA members stand out as the destination to which new markets have a relatively high value share in the exports Sudan.

New products have contributed noticeably to the change in the exports of Sudan to EFTA, the EU and sub-Saharan African countries.

### III. Trade Policy

Figure 17: MFN and applied tariff rates for all products, simple and weighted means



Source: ESCWA calculations using the World Development Indicators database (accessed October 2018).

Although the data for Sudan on tariff protection is scarce and not up to date, Sudan appears not to have lifted tariff protection since the breakup.

### **END NOTE**

Sudan's performance in services and merchandise trade and attracting FDI has been subpar and does not exhibit signs of immediate improvement, though admittedly over a very short period and based on scarce data. A more detailed analysis that entails making key data and indicators is in order to explore trade and investment policy options for Sudan.