



Box 3 Unpacking South Africa's terms of trade¹

The terms of trade² is an important macroeconomic aggregate that measures a country's purchasing power of exports relative to imports from the relationship between the relative prices of exports and imports. Changes in the terms of trade associate an increase with an improvement³ and a decrease with a deterioration. An improvement in the terms of trade implies that, for the same amount of exports, more imports can be purchased. This box presents the methodology underlying the compilation of South Africa's terms of trade, discusses the drivers of its recent improvement, and compares its evolution during the global financial crisis (GFC) with that during the coronavirus disease 2019 (COVID-19) pandemic.

The South African Reserve Bank's (SARB) methodology for compiling South Africa's terms of trade for goods and services is based on derived aggregate export and import price deflators, which are part of Statistics South Africa's (Stats SA) estimation of the gross domestic product (GDP) and gross domestic expenditure (GDE) statistics.⁴ Stats SA uses both price and unit value indices (UVIs) as deflators to derive the imports and exports of goods and services at constant prices. As deflators, UVIs are used for homogeneous imports and exports; domestic producer price indices (PPIs) for heterogeneous exports; exchange rate-adjusted foreign PPIs where import price indices for goods are not available; and exchange rate-adjusted foreign consumer

1 This box relates to the statistics on South Africa's terms of trade on pages S–85 and S–153 of this edition of the *Quarterly Bulletin* and the South African Reserve Bank's quarterly statistical press release, 'Balance of payments: current account of the balance of payments', available at <https://www.resbank.co.za/en/home/publications/quarterly-bulletin1/current-account-release>

2 'Terms of trade' is calculated as the ratio of a country's export prices to import prices.

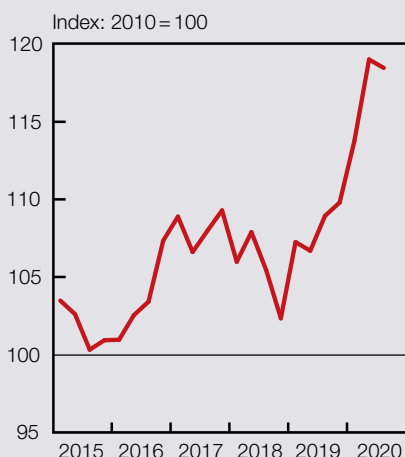
3 An improvement in the terms of trade could, among other things, reflect an increase in export prices concomitant with either unchanged or lower import prices; a smaller decline in export prices than in import prices; unchanged export prices with a related decrease in import prices; and export prices increasing at a faster pace than import prices.

4 See paragraph 3.5.5 'Constant price estimates – deflators' on pages 74 to 76 of Statistics South Africa's 'Expenditure on gross domestic product: sources and methods', available at http://www.statssa.gov.za/publications/P0441/Expenditure_on_GDP_Sources_and_Methods.pdf

price indices (CPIs) for imported services. For example, UVIs are used for imported petroleum products and motor vehicles as well as for the exports of certain mineral products such as iron ore, coal, manganese, copper and platinum group metals.⁵

South Africa's terms of trade, as calculated from the aggregate export and import price deflators, which are derived from the aggregated nominal and constant export and import values, improved uninterrupted from the third quarter of 2019 to the second quarter of 2020. This reflected a sustained increase in the price of exports of goods and services, while that of imports at first remained broadly unchanged before declining more recently. In the third quarter of 2020, the price of imports of goods and services increased more than that of exports, resulting in a slight deterioration in the terms of trade.

South Africa's terms of trade of goods and services, including gold



Source: SARB

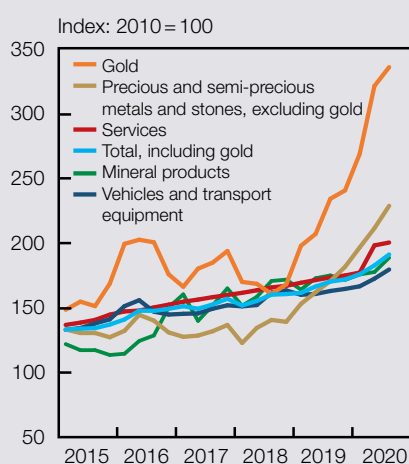
South Africa's export and import prices



Source: Stats SA

The increase in export prices was mainly driven by higher prices of gold; precious and semi-precious metals and stones, in particular rhodium and palladium; iron ore, as part of minerals; and also, to a lesser extent, vehicles and transport equipment as well as services. Up to the third quarter of 2020, the export price of gold had almost doubled from the first quarter of 2018, while that of precious and semi-precious metals and stones had increased by 86.5% and that of vehicles and transport equipment had increased by 18.9%. The overall export price was also boosted by these products' relative weights in the export price index.

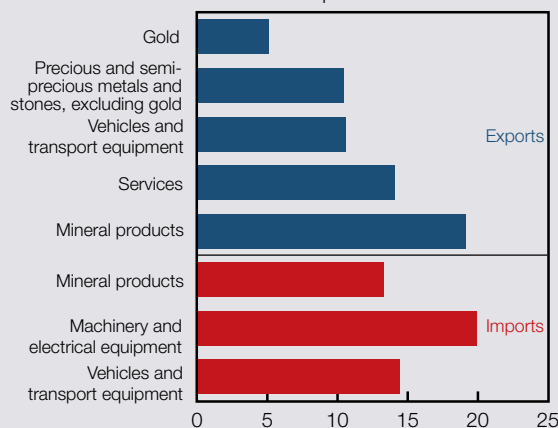
Export prices of goods and services



Sources: Stats SA and SARB

Weight in export and import price indices

Per cent: period average from first quarter 2015 to third quarter 2020



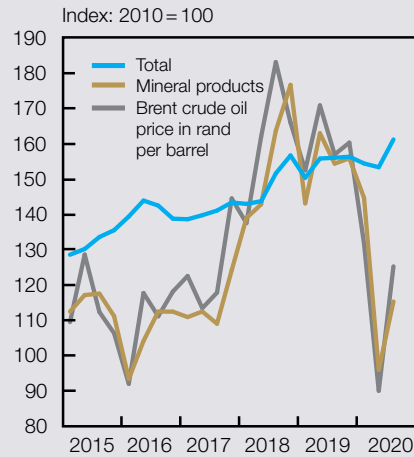
5 For more detail on the variety of deflators available, see Stats SA's 'Expenditure on gross domestic product: sources and methods', available at http://www.statssa.gov.za/publications/P0441/Expenditure_on_GDP_Sources_and_Methods.pdf





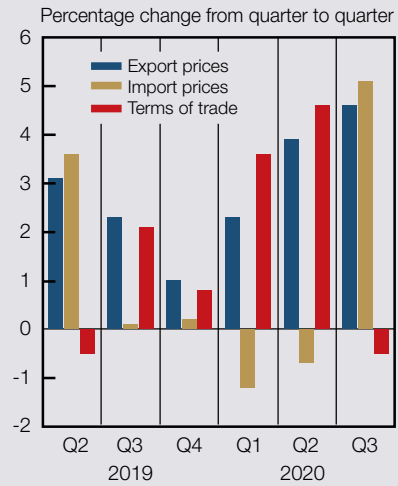
Import prices moved broadly sideways for most of 2019 before declining somewhat thereafter. This decline reflected lower mineral product prices, in particular that of crude oil, as the demand for oil shrunk in response to the COVID-19-related lockdowns globally. Changes in the prices of imported machinery and electrical equipment as well as vehicles and transport equipment also affected total import prices due to their relative weights in the index.

Import prices of goods and services



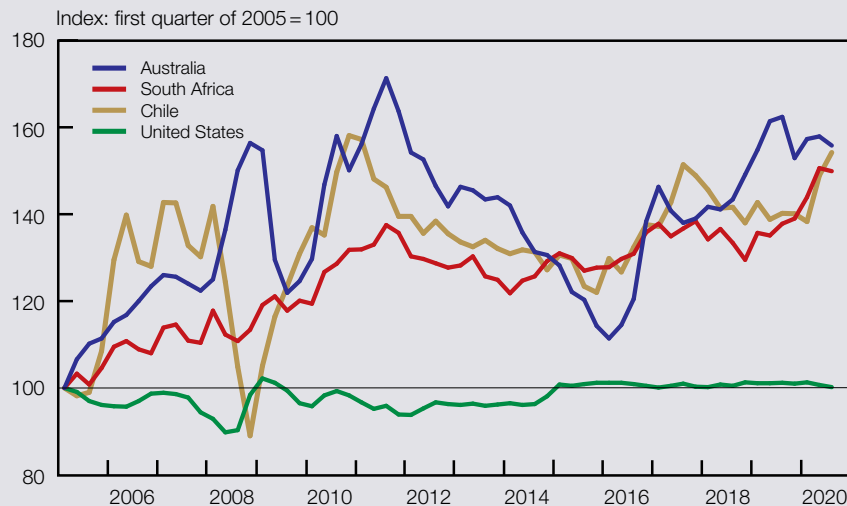
Sources: Reuters, Stats SA and SARB

Drivers of the terms of trade



The drivers of South Africa's terms of trade differed during both the COVID-19 lockdown and the GFC, and are related to developments in the exchange value of the rand and international commodity prices. A comparison of the terms of trade of selected countries reflects the impact of volatility in international commodity prices and changes in the trends of such prices on commodity-exporting countries relative to that of countries with diversified exports.

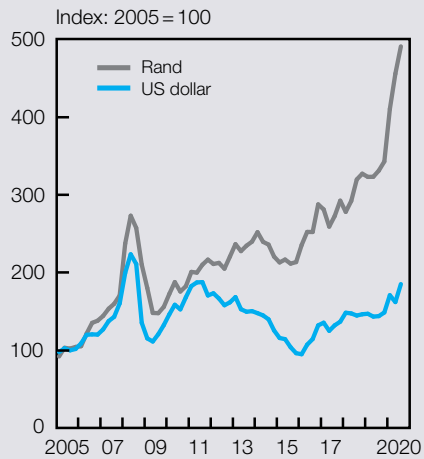
Terms of trade of selected countries



Sources: Haver Analytics, Stats SA and SARB

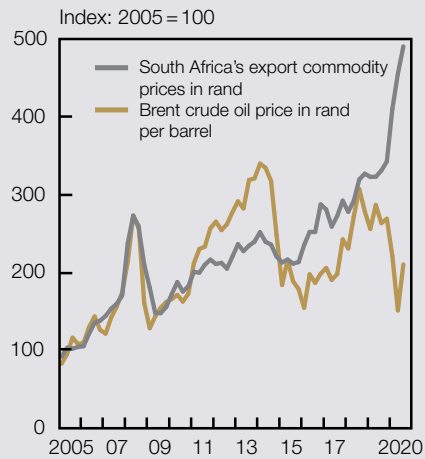
The decline in South Africa's export commodity prices in US dollar terms during the GFC was somewhat softened by the depreciation in the exchange value of the rand at the time. This contrasts with an increase in export commodity prices in US dollar terms during COVID-19, together with a significant depreciation in the exchange value of the rand, which boosted the rand price of South African exports.

South Africa's export commodity prices



Sources: Afriforesight, Reuters, World Bank and SARB

South Africa's export commodity prices and import price of crude oil



Sources: Reuters and SARB

The interplay between export and import prices also differed between the COVID-19 and the GFC episodes. The realised rand price of imported crude oil declined noticeably during both episodes, while the decline in South African export commodity prices in rand terms during the GFC sharply contrasts an increase during COVID-19.

