

Jobs Supported by Goods Exports 2016

In 2016 South Africa exported over R1 trillion worth of goods to the world, and this supported about 1 million jobs, accounting for 6.6 per cent of total employment, of which 405 936 jobs are youth employment. Most jobs are embodied in regional exports. Resource-based and manufactured exports supported 350 181 jobs and 687 371 jobs respectively. When compared with 2010, the total number of jobs supported has increased by 20 951 in 2016, driven by mining and manufactured exports, jobs were however lost in agricultural commodities exports.

Introduction

This is the first edition of the Jobs Supported by Goods Exports 2016.

The Report underlines the critical role of trade in fostering employment, and reaffirms the commitment of ITAC to fulfil its mandates in support of this effort.

Methodology

Jobs Supported by Goods Export 2016 monitors and evaluates the impact of country's exports on jobs. In particular, it provides estimate of jobs supported in the formal sector through goods exports, with breakdowns to major trading partners by commodities.

The number of jobs supported by South African goods exports in 2016 is estimated using input-output analysis developed by OECD. In particular, this report used a newly developed OECD database, the Trade in Value Added (TiVA) for 2000-2011 (Appendix 1).

The number of the jobs supported by the export of a commodity to a destination is calculated by multiplying the total number of jobs supported by all South African exports of that commodity by the share of the total exports of that commodity that go to that destination. The report then adds all commodities to arrive at the total number of jobs supported by goods exports to that particular destinations.

The export and employment data used in the analysis are taken from Trade Map and Statistics South Africa respectively.

Jobs Supported by Major Export Destinations

In 2016 South Africa exported over R1 trillion worth of goods to the world, and this supported about 1 million jobs, accounting for 6.6 per cent of total employment, of which 405 936 jobs are youth employment. Goods exports to the African countries supported the

greatest number of South African jobs followed by goods exports to the EU, USA, China and India (Figure 1). Russia and Brazil were the least job supporting countries.

Figure 1
Major SA Destinations, Jobs Supported by Goods Exports in 2016

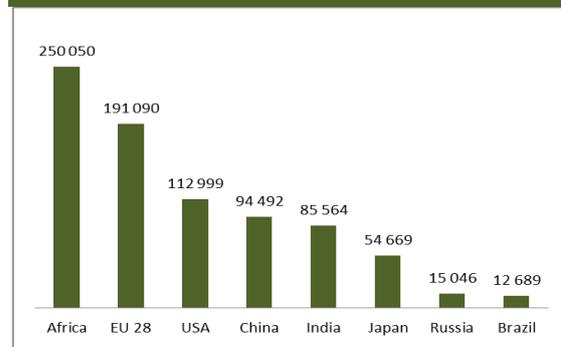


Figure 2
Shares of Jobs Supported by Goods Exports to Major SA Destinations

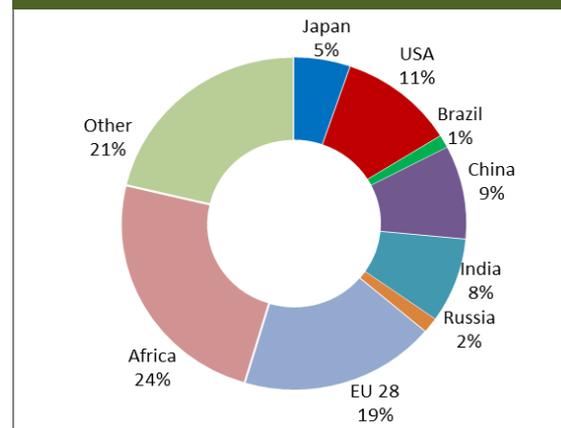
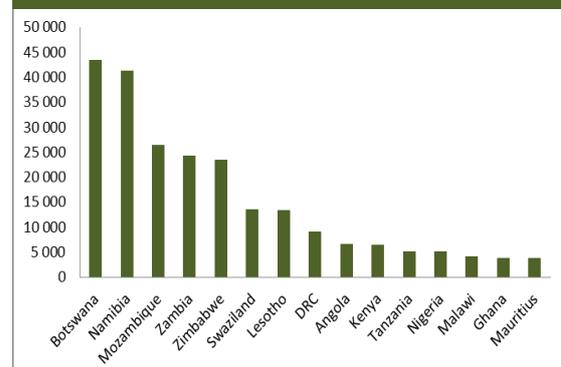


Figure 3
Jobs Supported by SA Exports to Africa in 2016



The major destinations for South African goods exports supported almost 816 598 jobs in the aggregate, accounting for over 79 per cent of all South African jobs supported by goods exports in 2016 (Figure 2).

Of the 250 050 jobs supported by South African goods exports to African countries in 2016, exports to the top fifteen job-supporting African destinations accounted for over 90 per cent, with Botswana, Namibia, Mozambique, Zambia and Zimbabwe supporting over 60 per cent of these jobs (Figure 3).

Jobs Supported by Commodity Exports

Exports of resource-based commodities supported 350 181 jobs (33.8 per cent) while that of manufactures supported 687 371 jobs (66.2 per cent) (Table 1).

Basic metals, Chemicals and non-metallic mineral products, Transport equipment and Machinery emerged as the most job supporting export commodities, accounting for about 72 per cent of all jobs supported by South Africa manufactured exports in 2016.

Africa

At 28.8 per cent, Africa remains the largest market for South African exports in 2016, with manufactured exports alone accounting for 23.8 per cent.

About a quarter of all jobs supported by South African manufactured exports in 2016 was due to manufactured exports that go to African countries, (206 866 jobs, equivalent of 83 per cent of all jobs for exports to Africa), of which 23.3 per cent were in exports of Chemical products, Machinery (15.4 per cent) and Basic metals (14.5 per cent) (Table 2).

When compared to other major trading partners, exports to Africa also supported more than half of all jobs due to South Africa exports in Food, beverages and tobacco (52 per cent) and Electrical and optical products (60 per cent).

Table 1
Jobs Supported by Commodity Exports in 2016

Total export jobs in 2016	1 037 551	Share
Agriculture, hunting, forestry and fishing	123 682	11.9
Mining and quarrying	226 499	21.8
Total Manufactures	687 371	66.2
<i>Total manufactures of which,</i>		
Food products, beverages and tobacco	39 124	5.7
Textiles, textile products, leather and footwear	19 361	2.8
Wood, paper, paper products, printing and publishing	55 024	8.0
Chemicals and non-metallic mineral products	105 182	15.3
Basic metals and fabricated metal products	197 624	28.8
Machinery and equipment, nec	93 445	13.6
Electrical and optical equipment	29 293	4.3
Transport equipment	97 057	14.1
Manufacturing nec; recycling	51 262	7.5

Table 2
Jobs Supported by Exports to Africa in 2016

Total export jobs in 2016	250 050	Share
Agriculture, hunting, forestry and fishing	11 724	4.7
Mining and quarrying	31 460	12.6
Total Manufactures	206 866	82.7
<i>Total manufactures of which,</i>		
Food products, beverages and tobacco	22 171	10.7
Textiles, textile products, leather and footwear	10 205	4.9
Wood, paper, paper products, printing and publishing	14 773	7.1
Chemicals and non-metallic mineral products	48 262	23.3
Basic metals and fabricated metal products	30 040	14.5
Machinery and equipment, nec	31 897	15.4
Electrical and optical equipment	18 989	9.2
Transport equipment	21 144	10.2
Manufacturing nec; recycling	9 385	4.5

European Union

The European Union was the destination for 22.5 per cent of South Africa exports in 2016, agriculture and mineral exports making up for 2.3 per cent and 2.6 per cent respectively, and the remaining 17.6 per cent for manufactured exports.

Exports to the EU supported about one fifth of all jobs embodied in South African goods exports in 2016 (equivalent of 191 090 jobs), 76 586 jobs are resource-based and 114 504 jobs are in manufactured exports (Table 3).

Moreover, of the 123 682 jobs supported by South African exports in agriculture, exports to the EU embodied the greatest number of these jobs compared to other major trading partners (34 306 jobs or 30 per cent).

Table 3
Jobs Supported by Exports to the EU in 2016

Total export jobs in 2016	191 090	Share
Agriculture, hunting, forestry and fishing	34 306	18.0
Mining and quarrying	42 281	22.1
Total Manufactures	114 504	59.9
<i>Total manufactures of which,</i>		
Food products, beverages and tobacco	6 921	6.0
Textiles, textile products, leather and footwear	3 310	2.9
Wood, paper, paper products, printing and publishing	8 175	7.1
Chemicals and non-metallic mineral products	13 893	12.1
Basic metals and fabricated metal products	26 733	23.3
Machinery and equipment, nec	21 266	18.6
Electrical and optical equipment	3 561	3.1
Transport equipment	19 711	17.2
Manufacturing nec; recycling	10 884	9.5

United States

In 2016, USA consumed almost 7.4 per cent of the total South Africa exports, of which 1.3 per cent were resource-based exports and 6.1 per cent were manufactured exports.

Of the 112 999 jobs supported by South African goods exports to USA in 2016, manufactured exports accounted for over 70 per cent, with Basic metals and Transport equipment embodying half of these jobs (Table 4).

China

China is the largest contributor of all jobs supported by South African exports in mineral commodities in 2016.

About two-third of South Africa exports to China last year was in mineral commodities and this supported 46 644 jobs (or 49 per cent of all jobs due to exports to China). However, manufactured exports accounted for 36 per cent of country's exports to China last year and embodied 41 578 jobs (44 per cent) (Table 5).

India

In 2016 South Africa exported over R34 billion worth of mineral commodities (71.6 per cent of its exports) to India, and this supported 26 131 jobs, accounting for 31 per cent of all jobs supported exports to India (Table 6). At the same time, jobs supported by

manufactured exports, which accounted for 27.7 per cent of total country's exports to India, were two times more than that of mineral exports (56 725 jobs), 70 per cent of which were in Basic metals.

Table 4
Jobs Supported by Exports to US in 2016

Total export jobs in 2016	112 999	Share
Agriculture, hunting, forestry and fishing	8 225	7.3
Mining and quarrying	18 808	16.6
Total Manufactures	85 966	76.1
<i>Total manufactures of which,</i>		
Food products, beverages and tobacco	2 914	3.4
Textiles, textile products, leather and footwear	2 512	2.9
Wood, paper, paper products, printing and publishing	5 024	5.8
Chemicals and non-metallic mineral products	10 501	12.2
Basic metals and fabricated metal products	21 152	24.6
Machinery and equipment, nec	6 833	7.9
Electrical and optical equipment	2 361	2.7
Transport equipment	21 152	24.6
Manufacturing nec; recycling	13 515	15.7

Table 5
Jobs Supported by Exports to China in 2016

Total export jobs in 2016	94 492	Share
Agriculture, hunting, forestry and fishing	6 269	6.6
Mining and quarrying	46 644	49.4
Total Manufactures	41 578	44.0
<i>Total manufactures of which,</i>		
Food products, beverages and tobacco	2 608	6.3
Textiles, textile products, leather and footwear	1 605	3.9
Wood, paper, paper products, printing and publishing	3 812	9.2
Chemicals and non-metallic mineral products	5 617	13.5
Basic metals and fabricated metal products	14 495	34.9
Machinery and equipment, nec	2 859	6.9
Electrical and optical equipment	1 806	4.3
Transport equipment	1 705	4.1
Manufacturing nec; recycling	7 072	17.0

Table 6
Jobs Supported by Exports to India in 2016

Total export jobs in 2016	85 564	Share
Agriculture, hunting, forestry and fishing	2 708	3.2
Mining and quarrying	26 131	30.5
Total Manufactures	56 725	66.3
<i>Total manufactures of which,</i>		
Food products, beverages and tobacco	702	1.2
Textiles, textile products, leather and footwear	702	1.2
Wood, paper, paper products, printing and publishing	3 411	6.0
Chemicals and non-metallic mineral products	5 316	9.4
Basic metals and fabricated metal products	40 224	70.9
Machinery and equipment, nec	1 806	3.2
Electrical and optical equipment	552	1.0
Transport equipment	953	1.7
Manufacturing nec; recycling	3 110	5.5

Japan

South Africa exports to Japan made up about 4.7 per cent of South Africa total exports in 2016, with resource-based and manufactured exports accounting for 1.5 per cent and 3.2 per cent respectively.

About 5.3 per cent of all jobs supported by South African goods exports in 2016 was due to exports that go to Japan (equivalent of 54 669 jobs), 20 263 jobs are resource-based and 34 406 jobs are embodied in manufactured exports (Table 7).

Total export jobs in 2016	54 669	Share
Agriculture, hunting, forestry and fishing	4 715	8.6
Mining and quarrying	15 548	28.4
Total Manufactures	34 406	62.9
Total manufactures of which,		
Food products, beverages and tobacco	1 000	2.9
Textiles, textile products, leather and footwear	550	1.6
Wood, paper, paper products, printing and publishing	6 101	17.7
Chemicals and non-metallic mineral products	3 251	9.4
Basic metals and fabricated metal products	16 603	48.3
Machinery and equipment, nec	1 400	4.1
Electrical and optical equipment	300	0.9
Transport equipment	3 751	10.9
Manufacturing nec; recycling	1 450	4.2

Russia

South Africa exports to Russia supported 15 046 jobs (or 1.5 per cent of all jobs supported by South Africa exports) in 2016, with manufactured job-related exports and agriculture accounting for 0.7 per cent and 0.5 per cent respectively (Table 8).

Brazil

Brazil remains the least job-supportive market for South African exports in 2016, accounting for 1.2 per cent in total jobs supported by South African exports (or 12 689 jobs), manufactured exports supported 0.8 per cent or 8 677 jobs, mining 0.3 per cent and the remaining 0.1 per cent were supported by agricultural commodities exports (Table 9).

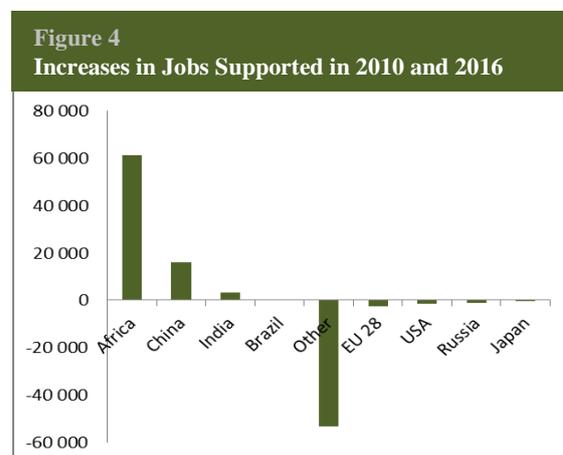
Comparison with Jobs Supported by Goods Exports in 2010

The total number of jobs supported by goods exports has increased by 20 951 from 2010 – 80 207 new jobs supported less 59 255 lost jobs (Figure 4). The largest increases in jobs supported were associated with goods exports to Africa (15 924 jobs or 76 per cent of the

total increase), followed by China (4 125 jobs), India (826 jobs) and Brazil (76 jobs).

Total export jobs in 2016	15 046	Share
Agriculture, hunting, forestry and fishing	4 965	33.0
Mining and quarrying	2 959	19.7
Total Manufactures	7 122	47.3
Total manufactures of which,		
Food products, beverages and tobacco	544	7.6
Textiles, textile products, leather and footwear	247	3.5
Wood, paper, paper products, printing and publishing	495	6.9
Chemicals and non-metallic mineral products	1 088	15.3
Basic metals and fabricated metal products	1 682	23.6
Machinery and equipment, nec	1 484	20.8
Electrical and optical equipment	346	4.9
Transport equipment	841	11.8
Manufacturing nec; recycling	396	5.6

Total export jobs in 2016	12 689	Share
Agriculture, hunting, forestry and fishing	903	7.1
Mining and quarrying	3 110	24.5
Total Manufactures	8 677	68.4
Total manufactures of which,		
Food products, beverages and tobacco	555	6.4
Textiles, textile products, leather and footwear	303	3.5
Wood, paper, paper products, printing and publishing	605	7.0
Chemicals and non-metallic mineral products	2 119	24.4
Basic metals and fabricated metal products	2 371	27.3
Machinery and equipment, nec	605	7.0
Electrical and optical equipment	303	3.5
Transport equipment	1 211	14.0
Manufacturing nec; recycling	605	7.0



However, jobs were lost in relation to goods exports to the EU (2 810 jobs), USA (1 501 jobs), Russia (1 354 jobs), Japan (231 jobs) and other countries (53 359 jobs).

In terms of commodities, the largest increases in jobs supported between 2010 and 2016 were associated with goods exports in mineral products (12 299 jobs), followed by manufactured products (9 771 jobs). Jobs were lost with regards to exports in agricultural products (1 118 jobs) (Table 10).

Of the 12 299 new jobs supported in manufactured exports, 3 687 jobs were due to exports in Machinery and equipment, Chemicals and non-metallic minerals (2 652 jobs), Manufacturing recycling (1 211 jobs), Transport equipment (1 029 jobs), Basic metals (555 jobs), Electrical (527 jobs) and Food beverages and tobacco (110 jobs). Jobs were however lost with goods exports in Wood and paper products (776 jobs) and Textile, leather and footwear (339 jobs).

Table 10
Increases in Jobs Supported in 2010 and 2016

Increase in Export Supported Jobs	20 951	Gains in Jobs
Agriculture, hunting, forestry and fishing	-1 118	-
Mining and quarrying	12 299	11 676
Total Manufactures	9 771	9 276
<i>Total manufactures of which,</i>		
Food products, beverages and tobacco	124	110
Textiles, textile products, leather and footwear	-339	-
Wood, paper, paper products, printing and publishing	-776	-
Chemicals and non-metallic mineral products	2 982	2 652
Basic metals and fabricated metal products	624	555
Machinery and equipment, nec	4 145	3 687
Electrical and optical equipment	593	527
Transport equipment	1 157	1 029
Manufacturing nec; recycling	1 362	1 211

Appendix 1

Domestic employment embodied in foreign final demand (FFD_DEM_{i,p}) by industry i and demand country p captures the number of persons engaged in production to satisfy foreign final demand for goods.

This measure reflects the fluctuating origins of demand for goods produced domestically, i.e. an increase in industry employment to meet foreign final demand does not necessarily translate into an increase in total industry employment; if, employment in production to meet domestic demand decreases.

$$\text{Export jobs}_{p,i} = e^t B y$$

Where $e^t B$ = *Employment multiplier*

And y = Exports

p = Partner country

i = Industry

$$\text{But } e_i^t = \frac{\text{Employment}_i}{\text{Output}_i}$$

and $B = (I - A)^{-1}$ Leontief inverse matrix