



IMPACT OF ABS CONFIDENTIAL RESTRICTIONS ON EXPORTS OF NICKEL – UPDATE FOR 2016

Introduction

This article updates analysis of the impact of confidentiality restrictions in Australian Bureau of Statistics (ABS) international merchandise trade statistics on exports of Australian nickel products. These restrictions have led to some significant distortions in the time series for exports of nickel products and by extension, *Simply transformed manufactures (STM)*.

Attachment A provides an update on the methodology used to calculate Australian *Nickel* and *STM* exports using both ABS reported and partner country data for 2016.

Trends in Australian Nickel exports in 2016

Based on ABS reported and partner country data, DFAT estimates that Australian exports of *Nickel* fell by 31.9 per cent (or \$1.1 billion) to \$2.4 billion in 2016. This followed a fall of 31.5 per cent (or \$1.6 billion) to \$3.5 billion in 2015.

The world *Nickel* price reached a peak of US\$51,783 per metric ton in May 2007, and fell sharply in the second half of 2007 and again in the second half of 2008 as the world financial crisis developed. *Nickel* prices recovered in 2009 and 2010 as the world economy started to recover, but have been trending down since that period— see **Chart 1**.

Chart 1: World Nickel prices



Source: London Metal Exchange – Nickel spot price.

Nickel consumption growth in 2016 was supported by a recovery in stainless steel production (63 per cent of world nickel use is in the manufacture of stainless steel). Nearly all of the growth in stainless steel production in 2016 occurred in China. The average price per metric ton for *Nickel* was US\$9,595 in 2016 down 19.1 per cent from US\$11,863 in 2015. However *Nickel* prices have been slowly recovering from their trough of US\$8,229 a tonne in the February 2016¹.

In the 2016-17 financial year (Department of Industry forecast), Australian nickel mine production remained steady while Australian refined and intermediate-use nickel production, fell 16.7 per cent.¹

The fall in Australian production and recorded low prices contributed to the decrease in Australian *Nickel* exports in 2016. Within *Nickel* the major export components recording falls included:

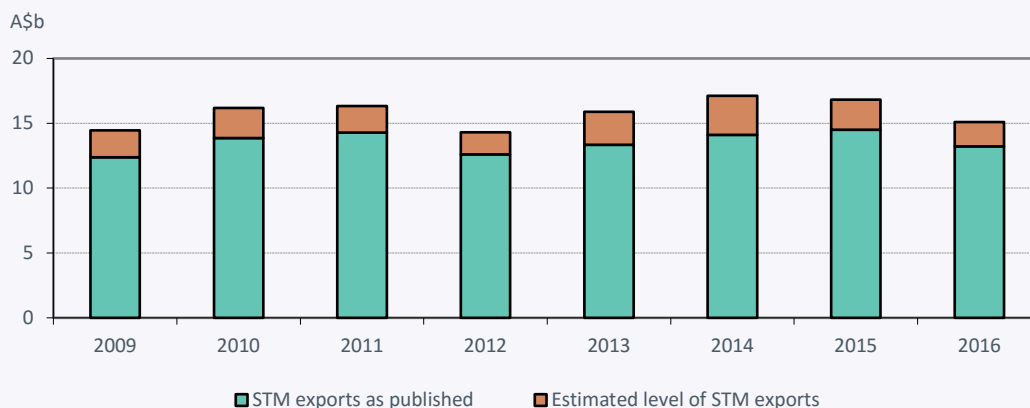
- *Nickel & nickel alloys unworked*, which fell 20.1 per cent (or \$470 million) to \$1.9 billion
- *Nickel ores & concentrates*, which fell 55.8 per cent (or \$366 million) to \$290 million
- *Nickel bars, rods and profiles*, which fell 73.4 per cent (or \$102 million) to \$37 million.

Impact of confidential Nickel exports on Australian STM exports in 2016

The large value of confidential *Nickel* exports in ABS trade statistics has meant that the total value of Australian *STM* exports has been understated since February 2003 in ABS reported data. The total value of *Primary products* exports is also affected, but to a lesser extent.

DFAT estimated the level of Australian *STM* exports (including confidential *Nickel*) was valued at \$15.1 billion in 2015 (compared to \$13.2 billion using *STM* exports compiled from ABS reported data alone). *STM* exports were therefore under-reported by around 14 per cent in 2016 – see **Chart 2**.

Chart 2: STM exports as compiled from ABS data vs DFAT estimated level of STM exports




Sources: ABS trade data on DFAT STARS database, Global Trade Atlas and UN Comtrade data.

When comparing the growth rates of *STM* exports in 2015, ABS data shows a fall of 8.7 per cent, while, based on DFAT estimates *STM* exports fell by 10.3 per cent.

As a result of these differences in the value and growth rates of *STM* exports, *STM* exports compiled from ABS reported data alone are identified as *STM (excl Nickel)* in all DFAT trade statistical publications.

¹ Department of Industry & Science - *Resources and Energy Quarterly March quarter 2017*.



Next update

This analysis will be updated on an annual basis. The next update will be published in mid-2018.

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ATTACHMENT A: METHODOLOGY FOR ESTIMATING NICKEL EXPORTS

Background

The ABS has a legal obligation to confidentialise data from an individual or organisation that is identifiable if that individual or organisation has requested that the data be suppressed. These restrictions affect the level of detailed merchandise trade data that is potentially available for release.

The ABS publishes monthly a list of merchandise trade commodities with confidential restrictions in its publication *International Merchandise Trade: Confidential Commodities List* (ABS catalogue 5372.0.55.0.01). More detail on how the ABS applies confidentiality in merchandise trade statistics is available in the ABS information paper *International Trade – Request to Confidentialise data* (ABS catalogue 5497.0.55.001). These products are available on the ABS website at www.abs.gov.au.

Impact of confidentiality on exports of Nickel products

In ABS statistics *Nickel mattes, Unwrought nickel & nickel alloys* and *Nickel powders & flakes* have the restriction applied of no commodity details. No data relating to these Australian Harmonized Export Commodity Classification (AHECC) commodities are released by the ABS.

Table A lists the ABS confidentiality restrictions applied to these nickel products and the dates from when they came into effect. The table also shows the DFAT Trade Import and Export Classification (TRIEC) codes² and the Standard International Trade Classification (SITC) codes which are affected by these restrictions. In this publication confidential nickel trade is classified to *Confidential items* (TRIEC code 3041 and SITC code 988).

Table A: Nickel product items subject to ABS confidentiality restrictions

TRIEC group	TRIEC code	SITC code	ABS AHECC codes	Restriction applied	From	Included in confidential TRIEC or SITC code
PPP	1222	284.21	75011000 Nickel mattes	No commodity details	Jan-88	3041 & 988
STM	2313	683.11	75021000 Unwrought nickel, not alloyed	No commodity details	Feb-03	3041 & 988
STM	2313	683.12	75022000 Unwrought nickel alloys	No commodity details	Feb-03	3041 & 988
ETM	2414	683.23	75040000 Nickel powders and flakes	No commodity details	Feb-03	3041 & 988

Source: ABS catalogue 5372.0.55.001 - International Merchandise Trade: Confidential Commodities List.

² ABS AHECC data is used to compile the DFAT TRIEC classification.

Table B shows exports of *Nickel* products as published under the TRIEC classification from 2012 to 2015. It shows where the ABS confidential nickel restrictions impact on the TRIEC export data in this publication.

TRIEC	Total exports				% growth	
	2013	2014	2015	2016	2015 to 2016	5 year trend
Total Nickel products	1,752	1,750	911	345	-62.1	-26.9
Unprocessed primary products						
Other metalliferous ores & concentrates						
Nickel ores & concentrates	967	797	656	290	-55.8	-21.4
Processed primary products						
Metallic minerals, processed						
Nickel mattes	np	np	np	np
Nickel sinters	133	143	112	16	-85.6	-34.8
STM						
Non-ferrous metals, simply transformed						
Nickel & nickel alloys unworked	np	np	np	np
ETM						
Non-ferrous metals, elaborately transformed						
Nickel bars, rods and profiles	650	807	139	37	-73.4	-40.9
Nickel powder & flakes	np	np	np	np
Other nickel alloys & articles	3	4	4	2	-52.7	1.5

Derived from ABS trade data on DFAT STARS database.

Alternative sources of information on Australia's Nickel exports

By using partner country import data (e.g. Japan's imports from Australia) it is possible to get an idea of the size of Australia's exports of confidential nickel commodities.

It should be noted that data on *Nickel* products as published by our major trading partners are not fully compatible with data as published by the ABS. This is due to certain timing, coverage and valuation differences that will exist between the two data sets. (For more information on the quality of the data sourced from our trading partners please refer to the section on quality of these estimates at the end of this article.)

Based on partner country import data, **Table C** shows that our major trading partners imported around \$1.9 billion of Australian *Nickel & nickel alloys unworked* in 2016. Our major trading partners also imported \$160 million of Australian *Nickel mattes* and \$40 million of *Nickel powder & flakes*.

Table C: Imports of Australian Nickel products for those items classified as confidential in ABS statistics (A\$ million)

TRIEC	2013	2014	2015	2016
Processed primary products				
Nickel mattes	434	351	251	160
STM				
Nickel & nickel alloys unworked	2,542	3,023	2,335	1,864
ETM				
Nickel powder & flakes	38	45	42	40

Sources: Global Trade Atlas and UN Comtrade data.

Estimate of exports of Nickel products using both ABS and partner country data

DFAT has combined both ABS and partner country trade data to calculate an estimate of the level of exports of Australian nickel products and *STM* exports over time. The results of this analysis are shown in **Table D** below.

Table D: Australia's exports of Nickel products using both ABS and partner country data (A\$ million)

TRIEC	Total exports				% growth	
	2013	2014	2015	2016	2015 to 2016	5 year trend
Total Nickel products	4,767	5,169	3,539	2,410	-31.9	-11.3
Unprocessed primary products						
Other metalliferous ores & concentrates						
Nickel ores & concentrates	967	797	656	290	-55.8	-21.4
Processed primary products						
Metallic minerals, processed						
Nickel mattes	434	351	251	160	-36.0	-28.0
Nickel sinters	133	143	112	16	-85.6	-34.8
STM						
Non-ferrous metals, simply transformed						
Nickel & nickel alloys unworked	2,542	3,023	2,335	1,864	-20.1	1.8
ETM						
Non-ferrous metals, elaborately transformed						
Nickel bars, rods and profiles	650	807	139	37	-73.4	-40.9
Nickel powder & flakes	38	45	42	40	-4.9	-11.2
Other nickel alloys & articles	3	4	4	2	-52.7	1.5
Impact on STM exports						
<i>STM exports (ABS data only)</i>	13,344	14,109	14,496	13,231	-8.7	0.3
<i>STM exports including Nickel unworked</i>	15,886	17,132	16,830	15,095	-10.3	0.5

Compiled using partner country import data

Derived from ABS trade data on DFAT STARS database, Global Trade Atlas and UN Comtrade data.

Major markets for Nickel mattes and Nickel alloys unworked

Tables E and F show *Nickel mattes* and *Nickel alloys unworked* by major Australian market sourced from import data from our trading partners. In 2016, Australia's major markets for *Nickel mattes* were China, valued at \$91 million (down 43.7 per cent), followed by Japan at \$55 million (up 156.3 per cent) and the European Union at \$26 million (down 59.7 per cent).

Australia's major markets for *Nickel & nickel alloys unworked* in 2016 were Malaysia, valued at \$588 million (down 44.0 per cent), followed by Singapore at \$324 million (down 34.3 per cent), China valued at \$298 million (up 212.8 per cent) and the United States at \$295 million (up 607.9 per cent).

**Table E: Imports of Australian Nickel mattes by significant trading partner
(A\$ million)**

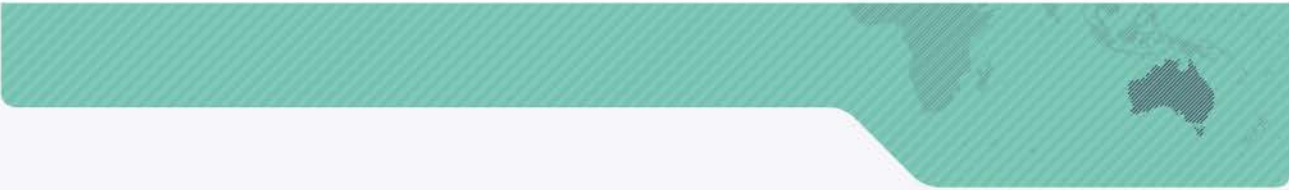
	2013	2014	2015	2016	% growth 2015 to 2016
Total imports (c)	434	351	251	160	-36.0
Canada (b)	15	0	0	0	..
China (a)	285	266	162	91	-43.7
European Union (a)	44	12	65	26	-59.7
Japan (a)	127	111	21	55	156.3
Norway (a)	7	0	31	6	-79.9

(a) c.i.f. basis. (b) f.o.b. basis. (c) Adjusted to an f.o.b. basis.
Sources: Global Trade Atlas and UN Comtrade data.

**Table F: Imports of Australian Nickel & Nickel alloys unworked
by significant trading partner
(A\$ million)**

	2013	2014	2015	2016	% growth 2015 to 2016
Total imports (c)	2,542	3,023	2,335	1,864	-20.1
China (a)	154	57	95	298	212.8
European Union (a)	302	341	264	161	-39.1
India (a)	236	67	150	68	-54.9
Japan (a)	100	141	79	60	-24.6
Republic of Korea (a)	64	48	30	71	133.7
Malaysia (a)	955	1,334	1,049	588	-44.0
Singapore (a)	552	663	494	324	-34.3
Taiwan (a)	7	8	0	21	..
United States (b)	13	83	42	295	607.9

(a) c.i.f. basis. (b) f.o.b. basis. (c) Adjusted to an f.o.b. basis.
Sources: Global Trade Atlas and UN Comtrade data.



Quality of these estimates

The reader should note the above analysis provides only an estimate of the actual value of Australian nickel products and *STM* exports. These estimates have a number of data quality issues:

- First, most partner country import data as published by our major trading partners are on a c.i.f. (cost, insurance and freight) basis, whereas the ABS export data are published on a f.o.b. (free on board) basis. As a result, a valuation on a c.i.f. basis will be higher than a valuation on an f.o.b. basis as it includes the additional cost of insurance and freight.
 - In an effort to overcome the issue of combining trade data on an f.o.b. and c.i.f. basis, DFAT has calculated a proxy f.o.b. value for commodities reported on a c.i.f. basis by deflating the reported value by 10 per cent for Nickel mattes and 5 per cent for nickel alloys³. This adjusted partner country data has been used in **Table D – Australia’s exports of nickel products** using both ABS and partner country data to calculate Australia’s total exports of *Nickel* on a consistent f.o.b. basis.
- Second, not all of Australia’s export partners publish their own import trade data (for example only limited data is available for Middle East countries) and therefore some Australian confidential *Nickel* exports may not have been included. As Australia’s major trading partners were covered in the calculation this should only have a small impact on the above estimates.
- Timing differences will also impact on the quality of the estimates, given the long distances to some of Australia’s major trading partners.
 - For example a good that is exported and recorded in ABS trade statistics in December 2015 could be imported and recorded in partner country trade data in January 2016 due to the time it takes to ship the good to that country. As a result this good is recorded in ABS trade statistics in calendar year 2015, while in the partner country data it will be recorded in 2016. This will impact on the quality of these estimates as data sourced from partner country data may be allocated to the incorrect time period.
- It is possible that some *Nickel* products are not given the same classification code in ABS export statistics as in partner country import statistics. It is therefore possible that some of the confidential *Nickel* data sourced from partner country data is actually published in ABS export statistics under a non-confidential nickel code. This could lead to some double counting in these estimates
- It is a possible that in ABS export statistics the final country of destination for these shipments is incorrect (it may be going onto a third party country). This is unlikely for shipments of bulk goods, such as resources. However given the proximity of Singapore to Malaysia there may be some double counting of Australia’s exports to these destinations.

³ This methodology is based on an analysis of various countries import data reported on both f.o.b. and c.i.f. basis.