

THE VOLATILITY OF COMMODITY PRICES

BY Grain W. P. Malunga FIMMM

MINERALS, SUSTANAIBLE DEVELOPMENT AND PROJECT MANAGEMENT EXPERT

Abstract

Commodity price volatility has mainly been associated with the effect of economic growth in China. Industrialisation, infrastructure development, monetary policy and the rapid economic growth of emerging markets will influence the growth of commodity prices.

The world needs to look beyond China in order to create advancement in technological development and creation of new markets.

Introduction

Countries that rely on natural resource exploitation have recently seen their economic growth slowing due to weak demand and strengthening of the US dollar. China's economic growth has adjusted to normal growth and shale-energy boom in the United States have affected the global demand and supply side of commodities. The Fukushima Daiichi nuclear power plant accident has caused a prolonged price slide in uranium nuclear fuel prices.

Commodity Price Overview

Precious Metals

The past five years have seen a general shrinkage in prices of precious metals. Precious metals prices, especially silver and gold, will be affected by US monetary policy and the performance of the US dollar. U.S. monetary policy tightening and a stronger dollar may reduce the prices of these metals. The removal of 500 and 1,000 Indian notes as legal tender will affect physical demand for silver and gold as the informal holding of money has been affected. Platinum prices are projected to decline due to continued large stock overhang and low production of motor vehicles. All in all, the prices of precious metals will be influenced by rising inflation, macro-economic concerns, adverse geopolitical events, and stronger physical demand.

Precious Metals Historical Price Data

	2012	2013	2014	2015	2016
Gold	1668.69	1410.71	1265.83	1159.8	1248.54
Silver	31.14	23.82	19.07	15.71	17.15
Palladium	643.47	725	803.44	690.55	614.03
Platinum	1549.48	1485.41	1383.61	1051.85	987.37

(Source: <http://www.focus-economics.com>)

Base metals

The strength of the US dollar and rise in interest rates have put pressure on base metal prices.

Aluminium

Aluminium prices have had a period of price fluctuation with a downward trend. The metal price is influenced by infrastructure spending and vehicle manufacturing. The new US administration's pledge to increase infrastructure spending and boost local automobile manufacturing will improve aluminium prices. The US and China have seen an increase in car sales through an 11 year high in December and all-time high in November respectively.

COMMODITY	OCT 2016	DEC 2015	DEC 2014	DEC 2013	DEC 2012
Aluminium, \$/t	1,701	1,503	1,832	1,710	2,043
Copper, \$/t	4,786	4,636	6,659	7,026	7,871
Lead, \$/t	2,048	1,667	1,853	2,051	2,310
Nickel, \$/t	10,335	9,020	14,935	13,410	17,225
Tin, \$/t	20,850	14,840	19,500	22,525	23,325
Zinc, \$/t	2,374	1,528	2,167	1,859	2,061
Iron ore (62% Fe), \$/t	63.10	\$39.4	\$71.2	134.0	139.5

Copper

Copper prices decreased due to slow economic growth in China. China is the world's main copper consumer and signs of Chinese economic growth recovery has seen recovery of copper prices in recent months. The American Trump effect through development of local infrastructure will boost copper demand and price increase too.

Lead

There was gradual recovery of lead prices towards end of 2016. This was equally influenced by increase in U.S. car sales and strong industrial production figures in China, Europe and North America.

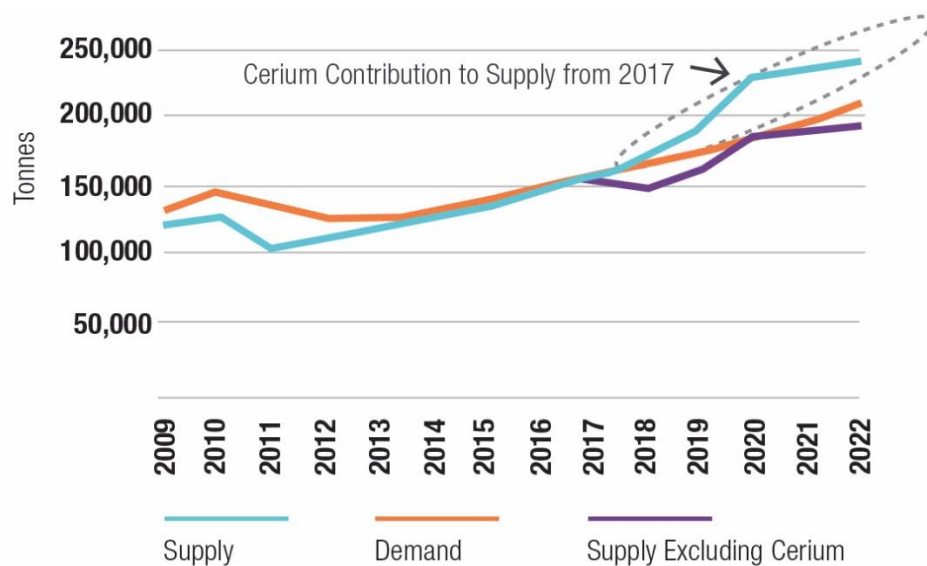
Nickel

Indonesia's relax on ban of export of low-grade ore will increase global supply of nickel and this may further influence price drop.

Rare Earths

China produces more than 85% of the global supply of rare earths and the country is also the largest consumer. Rare earths prices have been affected by structural demand changes, low growth in high-tech goods and lower investment in renewable energy. A global annual demand of 6-7% has been envisaged up to 2020. Neodymium

and praseodymium demand will be significant due to manufacture of NdFeB magnets for use in electric generators and motors. Cerium and lanthanum demand for use of catalytic materials to control transportation emissions and in cracking materials may increase their demand.



(Source: www.arultd.com)

Niobium

The biggest demand for niobium comes from China, North America and Europe. China is home to the world's fastest-growing market for niobium, accounting for 25% of total consumption in 2010. This is reflected in the size of its steel industry and the rapid rate of expansion in output in the recent years.



Source: Cradle Resources, Global Trade Atlas

Niobium price was stable from 1991 to 2005 when it rose from 12.5 US\$/kg to 42US\$/kg in 2015. Increasing demand for niobium-steel alloy in emerging nations is expected to drive the niobium market. Demand for special steel in large constructions and gas pipelines will drive the price of niobium upwards.

Iron Ore

Iron ore prices in 2016 started going up through a steady demand from China and supply cutbacks from high cost producers. Anti-dumping duties on China by the US and Europe; and increase in iron ore production by major players such as Rio Tinto and Vale may affect increase in iron ore prices in 2017.

Energy Minerals

The price of coal has been influenced by increasing production in China and Australia compounded by slowing demand in China. It is expected that, in 2017, prices may not improve due to supply additions and weak demand may continue to reduce prices.

Energy Minerals Price History Data

	2012	2013	2014	2015	2016
Coking Coal (US\$/t)	252.10	147.28	116.6	90.0	120.59
Thermal Coal (US\$/t)	98.70	85.53	72.54	60.38	63.03
Uranium (US\$/lb)	48.86	38.66	33.44	36.81	26.45

(Source: <http://www.focus-economics.com>)

Uranium

The slump in the uranium market was a result of closure of nuclear power plants and anti-nuclear lobby after the Fukushima Daiichi nuclear power plant melt down. This is continuing due to weak demand from the US and plentiful uranium supplies in China for its emerging nuclear power plants. The price of uranium has gone down from USD 136.0 in 2007 to USD18.0 2016. The traditional main consumers of nuclear energy have been United States, France and Japan. China and India are switching to the same energy source.

The recommissioning of about 50 Japanese nuclear plants and future commissioning of Chinese, Indian and British nuclear power plants will improve the demand side and improvement in uranium prices in the next two years. This is in line with the thinking that uranium demand will be experienced in highly populated economies whose energy policies are embracing nuclear power to promote low carbon emitting energy sources for climate change mitigation and pollution control.

Oil and Gas

The US shale cracking and ease of sanctions in Iran led to oversupply of oil and gas leading to low oil and gas prices. US crude oil production jumped from 5.4m barrels a day in April 2010 to 9.7m b/d in April 2015. Excess supply, high stocks, and weak global demand continued to weaken oil and gas prices.

Oil demand is being weakened by weak European and developing countries' economies. The production of energy efficient vehicles is reducing fuel demand too. This is somehow compensated by increase in car sales in the USA and China.

Graphite

The consumption of graphite is facing slowdown in conventional applications due to downturn in steel and iron industry. However, adoption of graphite is increasing in emerging applications such as heat exchangers, lithium-ion batteries, aerospace, and nuclear reactors, among others. The compounded annual growth rate of graphite between 2015 and 2020 is estimated at 4%. Natural graphite prices are heading for an average of US\$840/t.

Forward Looking

Prices of commodities such as copper, coal and iron ore have gained this year.

Precious metals will continue to depend on physical demand and monetary policies and inflation will shape the price of these metals. India's withdrawal of INR 500 and 1,000 may affect the physical demand for silver and gold in the short to medium period.

Base metal prices will be influenced by the rise in industrial projects in China, India and the US.

Resource Capital Fund will go to financing industrial minerals projects that are exposed to high-tech mineral markets such as graphite, lithium and rare earths.

Uranium prices will be influenced by slow in production and closure or putting into care and maintenance of non-profitable mines in anticipation of recommissioning of Japanese nuclear power plants and commissioning of new nuclear power plants in China, India and the UK. The demand may rise around 2019.

Niobium usage may increase in large infrastructure projects requiring steel. America's switch to local infrastructure development and growth of infrastructure in emerging markets brings hope for increase in use of niobium.

The usage of graphite is increasing thanks to lithium-ion batteries, which can be used in laptops, electronic devices and electric cars among many other things.

Oil and gas demand will be influenced by increase in car sales and revival of weak economies and growth in emerging markets. Geopolitical events and shale cracking may continue to influence periodic price fluctuations.

In 2017, metals prices are projected to increase by 4 percent as most markets continue to rebalance.

References

<http://www.arultd.com/rare-earths/supply-demand.html>

<https://www.biv.com/article/2016/1/current-commodity-price-mining-downturn-unprecedented/>

<http://www.businessinsider.com.au/>

<https://www.ft.com/content/7126ec00-e149-11e5-9217-6ae3733a2cd1>

<http://pubdocs.worldbank.org/en/143081476804664222/CMO-October-2016-Full-Report.pdf>

https://en.wikipedia.org/wiki/Commodity_price_shocks

<http://www.lme.com/>