

**THE SCOPE FOR BENEFICIATION
OF MINERAL RESOURCES IN
ZIMBABWE: THE CASE OF
CHROME AND PLATINUM**

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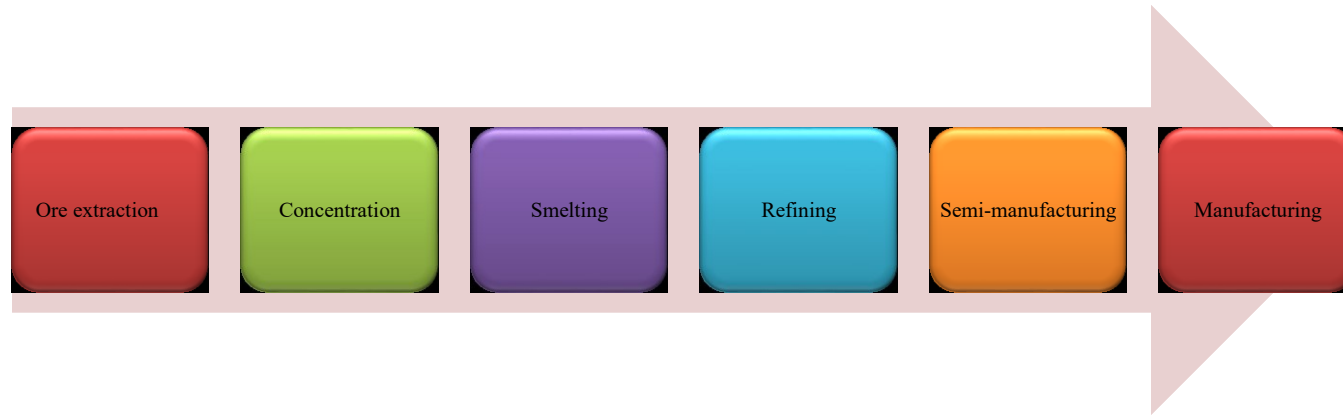
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Background

- The Zimbabwe Government is trying to foster beneficiation of minerals, focusing on platinum and chrome
 - In January 2015, a 15% export tax on “unbeneficiated” platinum imposed.
- The export levy was cancelled in July 2015
 - Zimplats committed to have a platinum refinery running by July 2016.
 - This has since been postponed further by Zimplats to early 2017.
- In 2011, the Government also introduced a ban on the export of raw chrome
 - This remained in force until June 2015, when it was removed.
- The policy reversals imply that Government is still to find a solution to the problem
- The study is an exploration of the feasibility of beneficiation in Zimbabwe as currently envisaged under the beneficiation policy
- Suggests strategies to ensure that beneficiation is properly contextualized

Beneficiation within Zimbabwe context

Typical stages for minerals

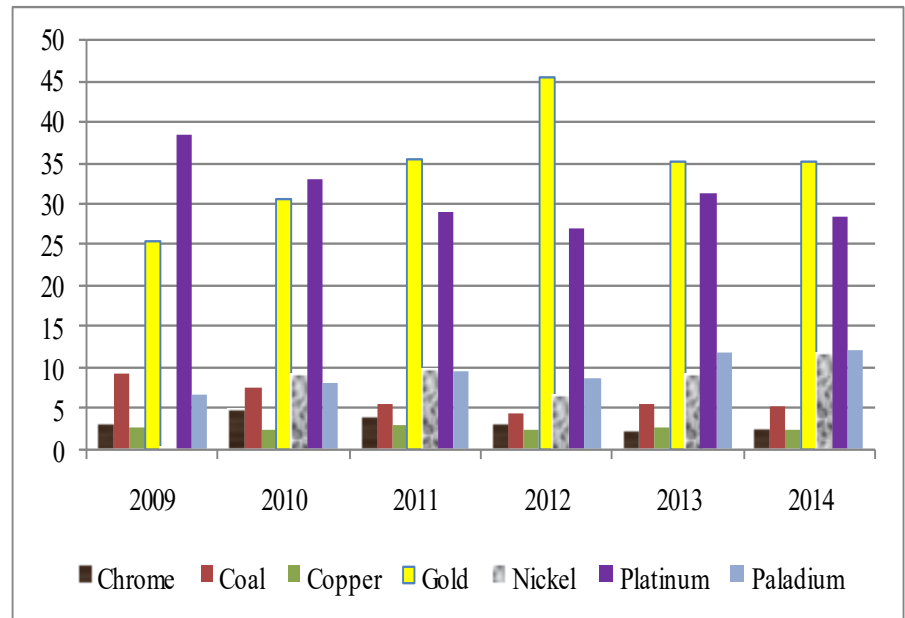


- Beneficiation can be defined differently depending on policy focus
- Can be defined within the mineral value chain process or as manufactured products from the minerals
- Current definition in Zimbabwe is within the mineral chain as shown

Overview of minerals in Zimbabwe

- Platinum share based on total production values has decreased from 35.8% to 28.4% in 2014.
- Gold share increased from 25% to about 35%.
- Chrome share is very low relative to other minerals, slightly decreased from 3% to 2.3%.
- The trends show that platinum is second after gold in terms of production value.

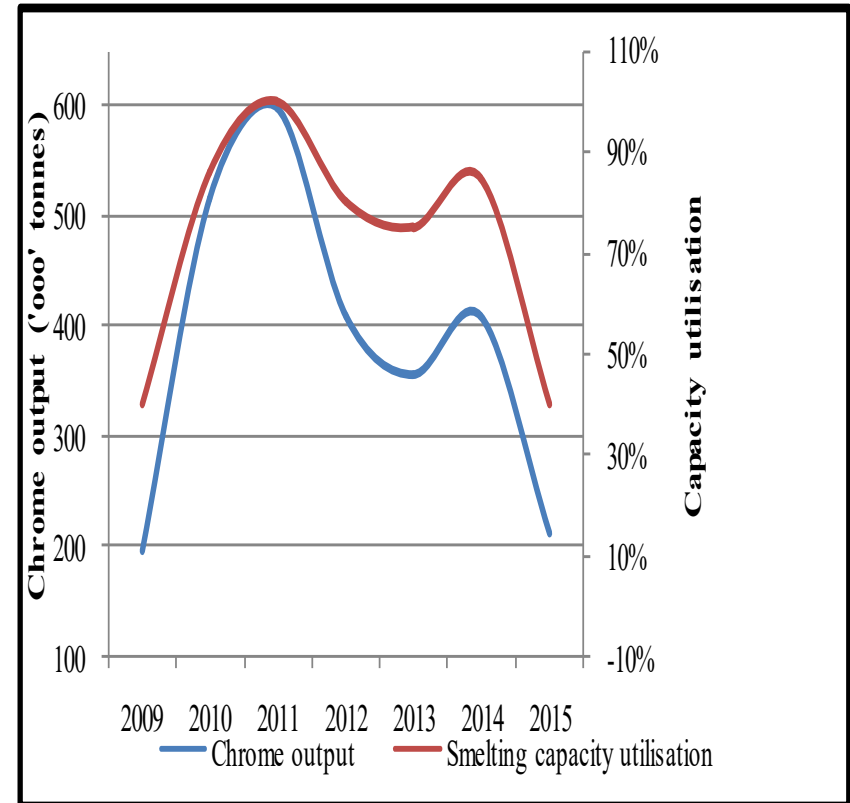
Share of mineral production value to total minerals produced



Chrome Industry Overview

- Traditionally, ferrochrome production was by Zimasco; Maranatha and ZimAlloys.
 - Now under judicial management or liquidation
 - Recent entry, including Chinese firms.
- 2011, the year of the ban on raw chrome exports, saw the decline in output and surprisingly, smelting capacity utilisation
- The biggest player also applied for judicial management during the ban

Chrome output and smelter capacity utilisation

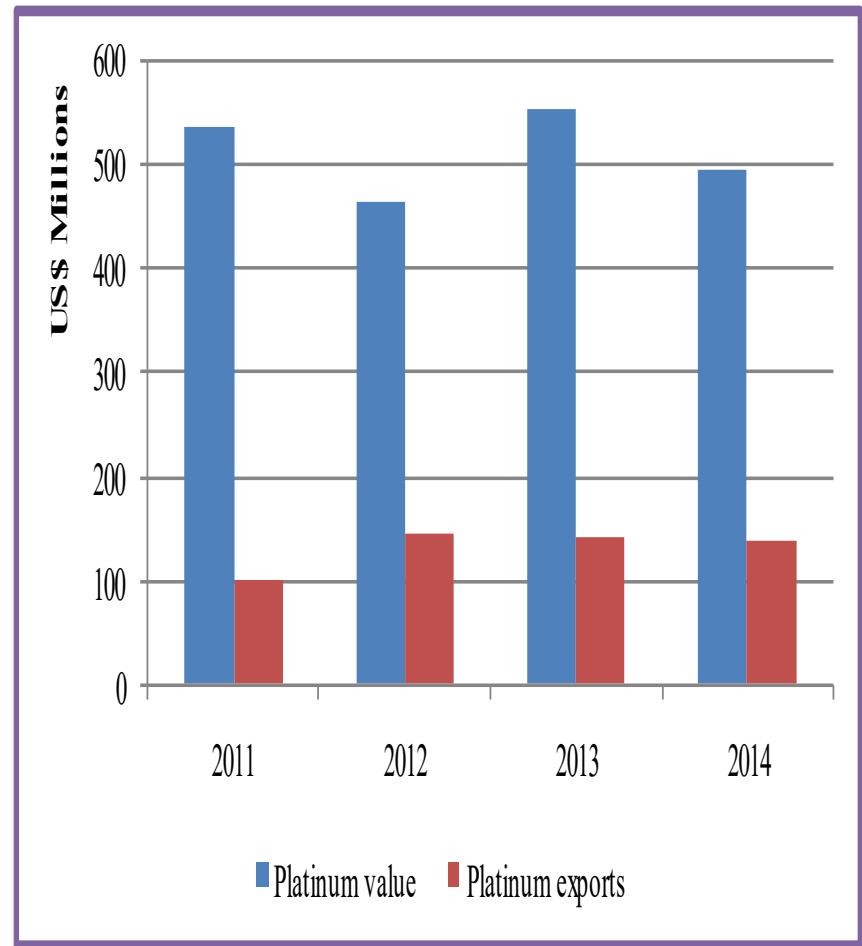


Overview of PGM sector

- Currently, three mines are operational in Zimbabwe, namely, Zimplats, Mimosa and Unki.
 - Zimplats is the leading player, with a share in total output of about 54%, followed by Mimosa (30%) and Unki (16%)
- Mimosa and Unki export concentrates while Zimplats does smelting to export as matte.
- All the three companies feed their parent companies, which are all South African

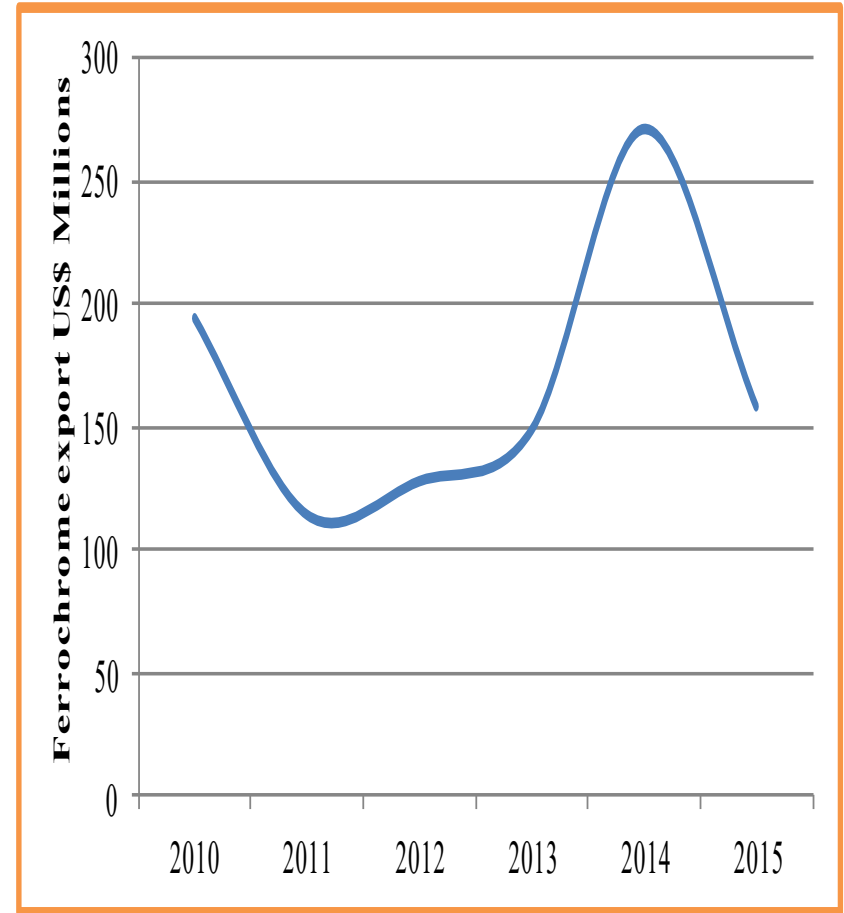
Platinum exports and production mismatch

- Platinum exports are about 4% of total exports and in 2015 was only about 1.3% of total exports
 - Big mismatch between production values and exports
- After the export tax, no platinum exports were recorded for 9 months beginning May 2015 to February 2016
- The response to the export tax was to avoid exporting for all the three firms.



1. Beneficiation and chrome smelting viability

- Beneficiation policy on chrome ignored smelting viability issues
- The volumes of ferrochrome exports fell in 2011 and only recovered in 2014
- Chrome ore and concentrates were 20% of ferrochrome exports in 2010 and 6% during the first quarter of 2016
- There is need for attracting new investment first before policy reforms
- The task of beneficiation should not be placed on struggling players unless the policy addresses operational challenges



2. Which policy thrust should drive beneficiation?

- Investors in the mining industry only invested in mining expertise which was what was required then
- Investment in refining is investment into a new industry
- Beneficiation need to be seen as being slightly divorced from the mining industry for proper planning and incentives to be properly established.
- There is benefit in driving the beneficiation agenda through a combination of industrial and mining policies rather than mining policies only
- Being part of industrial policy would see beneficiation being cognizant of the general factors that also affect industry performance in the country.
- The current industry and trade policies for Zimbabwe are actually trying to address such viability issues in other industry sectors

3. Mistrust between government and platinum mining firms

- Suspicions on mining firms due to statistical variations
 - Platinum is second to gold in terms of production values but fifth after gold, diamonds, nickel and ferrochrome in export earnings
- Transfer pricing or under-invoicing suspected
- Following the export tax, the firms survived for 9 months without any exports
 - Panama papers??
- The policy reversals and ultimatum have not helped both government and industry, as the country has also lost out on export revenues
- There is need for more transparency on the operating environment to ensure that government and industry speak from the same context.

4. Should it be the carrot or stick approach?

- Currently, a stick approach is being used by the Government
- The use of a stick approach suggest a belief by Government that platinum beneficiation is viable within the current environment.
- However, a better option could also have been a combination of stick and carrot approach, where attractive conditions could be promised in return for beneficiation.
- The carrot approach would also see players outside the mining sector developing an interest to partner the mining firms in beneficiating the platinum.

5. General investment environment

- Policy issues that should also accompany ultimatums
 - The application of the Indigenisation and Economic Empowerment Policy to the refinery not clarified
 - availability of power to the refinery
 - Poor transport network (roads and railways)
 - Access to water
 - Investment in beneficiation skills
 - research and development, technology and training institutions
 - Competitiveness due to high cost drivers
 - Availability of markets for refined products
 - Availability of enough feedstock for beneficiation

THANK YOU !!!!!