

### 5.1. Historical Aspects of Supply and Demand

THE marketing of the PGM has always been subjected to some control measures, partly because of the restricted occurrences of the metals globally, coupled with the changing output of the producer countries. As was shown earlier, the initial control was imposed when the Spanish government restricted the export of the PGM from Colombia, in order to curtail the counterfeiting of gold coins. Prior to the First World War, total PGM production was confined to Colombia and Russia (with insignificant amounts from Canadian placers). When demand escalated during that war, a first attempt was made by an international selling organization to control PGM prices — but it was dissolved before the end of the war. In 1918, the US government acquired the stocks of all the largest domestic PGM producers and consumers, to ensure that there would be enough metal available for military uses.

Just after the armistice, a powerful syndicate (consisting of Johnson Matthey from the UK, Baker — later Engelhard — of New York, Heraeus of Hanau in Germany, and Maret & Bonin of Paris) was established. It controlled the market up to 1925, but its influence was severely hampered by the cessation of Russian supplies following the 1915 revolution. The Soviet government established the 'Uralplatina' trust which, from 1924 to 1925, not only reorganized the Russian production from the Urals, but also caused its representatives in Europe and America to dump large parcels of the metals onto the markets, with dire consequences for the pricing. These price decreases were exacerbated by the growing prospect of steady PGM production from Sudbury in Canada by 1925, and accentuated by the advent of production from South Africa by 1925. Eventually, the USSR withdrew from co-operating with the syndicate, due to dissatisfaction with its selling quota of 1866 to 2155 kg (60 to 50 000 oz). Production from the Urals had already approached pre-war levels of some 3110 kg (100 000 oz). The Russians then established their own marketing arm, called Edelmetalle-Vertriebs Aktien Gesellschaft, in Berlin.

These events totally disorganized the restricted markets for the platinum metals, which could not accommodate the surges in production. By the end of 1930, the price of platinum had fallen from R50 per ounce in 1925 to a mere R9 per ounce. Efforts to stabilize prices again appeared to be successful when an international agreement was reached, on 21 October 1930, to establish a joint marketing company, Consolidated Platinums Ltd.

The agreement was concluded among the principal producers and controllers of the PGM in the USSR,

Canada, South Africa, and Colombia, including Edelmetalle-Vertriebs AG, the Mond Nickel Company (later International Nickel or Inco Ltd), the Johannesburg Consolidated Investment Co. Ltd., New Consolidated Goldfields, and the Companhia Minera Chocô Pacifico. Unfortunately disagreement among the participants soon led to its disbanding, as conditions were not favourable for the handling of sales by Consolidated Platinums. The PGM had simply not yet achieved adequate status as industrial commodities, and platinum in particular was used principally in the manufacture of jewellery.

The embryonic South African operations were unable to weather these storms, and were compelled to cease production for about 18 months in 1932. Likewise the Canadian output, due to restricted nickel demand, was greatly reduced — as were all exports from Colombia. Thus in 1932, at the lowest point of the Great Depression, consumption reached an all-time low of 2333 kg (55 000 oz). During the 1930s, the USA was by far the largest PGM consumer. The major user for platinum was then the jewellery industry, and for palladium, the dental industry.

Rustenburg Platinum Mines Ltd (RPM), the only South African producer at that time, resumed operations on 1 August, 1933, owing to increased demand. By 1935, the market had stabilized, with growing consumption by the electrical and chemical industries. It is significant, however, that RPM did not show a profit until 1940. Its two holding companies (Potgietersrus Platinum 52.5 per cent; Waterval Platinums 45.5 per cent) paid their first dividend in 1945, a full 18 years after they had started operations. (For a full account of the history of the South African platinum industry, the reader is referred to the review by Edwards and Silk.)

The Second World War caused an upsurge in the use of the PGM, particularly platinum. From October 1942 to August 1945, the use of platinum by non-essential industries was forbidden in the USA. Palladium was increasingly used in jewellery, while platinum was diverted to the chemical and electrical industries to enhance the war effort. The use of rhodium for electroplating jewellery was also prohibited, since that metal was needed for anti-aircraft reflectors and as a catalyst in the production of nitric and sulphuric acid. In 1939 and 1940, the price of iridium escalated due to greatly reduced imports, higher demand, and speculative influences. The metal was then used in magneto contacts for aircraft engines. Finally, on 29 April 1946, the USA lifted its wartime ceiling prices on the platinum metals, so that a post-war upswing in PGM demand and price was initiated. The chemical industry now commenced