for iridium is 3048 kg, but the stock is 40 years old, and needs upgrading. Rhodium is to be added to the strategic list, and ruthenium is to be considered for stockpiling as powder or sponge, in view of its special use in the electronics and electrochemical industries. However, it is certainly questionable whether the new management really intends to fulfil the stated goals at this time.

The initial purpose of the GSA stockpile was to ensure that the US government would have the necessary and often strategic materials for its military and essential civilian requirements during periods of extended conflict or other disruption of foreign supplies. In a nutshell, the purpose of the inventory is to reduce US dependence on foreign raw-material supplies. As is now known, this was at a particularly high level (an average of more than 90 per cent from 1986 to 1989) during the few years before the opening of the Stillwater mine.

In spite of the noble intentions for which the GSA stockpile was created, it has been criticized for having caused a disruptive influence on PGM markets during their periodic acquisitions and disposals, although opinions differ widely on the validity of such contentions. Furthermore, problems have required the periodic revision of stockpile policies, purchasing requirements, and up- or down-grading of the content standards to suit the current needs. The US Congress keeps a close watch on the inventory, and also ratifies or sanctions purchases and disposals. These economic adjustments are often triggered by the following drastic changes:

- foreign material sources on the supply side
- technological developments in the materials industries
- requirements of military weapons and hardware output
- planning of national security standards
- political and foreign policies affecting differing requirements
- international economic events and markets requiring annual acquisitions or disposals
- goals for materials in the inventory along with their varying physical and chemical standard
- prices and hence budgetary constraints.

Details of the short-term stocks in most countries are extremely limited, although it is almost certain that dealers such as Ayrton Metals and Johnson Matthey in the UK and Degussa in Germany must hold some strategic stocks in order to overcome supply shortages. Details are, however, available regarding the inventories held by refineries, importers, and dealers in the USA which, as indicated in Figure 5,5, also include the stocks held by NYMEX in New York. The average composition of those stocks for the period were

platinum	48,11 per cent	(CV 22,2 per cent)
palladium	42,34 per cent	(CV 18,0 per cent)
iridium	1,66 per cent	(CV 11,5 per cent)
other	5,89 per cent	(CV 31,1 per cent).

The overall CV is 16,9 per cent. The USBM does not supply details of the amount of PGM held by industrial consumers or end-users of PGM in the USA.

Only one estimate of the amount of platinum held in stocks worldwide could be found (Mohide, 1979, p. 85), which refers to the estimated 82 150 kg held in 1958. The percentage distribution is included as Figure 5.5 as the only estimate of its kind available.

5.5. Pricing

5.5.1. Factors Influencing Prices

Prices of the PGM generally, but certainly those of platinum, palladium, and more recently also rhodium in particular, have the reputation of being volatile and highly sensitive to outside influences. Three main causes come immediately to mind. Firstly, the modern commodity markets of the world operate largely as vast information systems within a changing economic scenario. This enables commodity producers and consumers to take correct decisions and actions at any time, and the markets can react as a result. However, as has been emphasized repeatedly, the PGM industry is characterized by a quite extraordinary degree of secrecy and insularity compared to, say, the gold and silver industry. As a result, information or estimates are extremely difficult to verify or interpret. This depressing lack of information has clearly led to the taking of many wrong actions and decisions in the past, thereby contributing much to market uncertainties and to consequent price instabilities on world markets.

This lack of basic information concerning the PGM industry has promoted the ease whereby false or alarmist rumours can be spread, thus enabling market speculators to influence the unpredictability and fickleness of market pricing, more so than in any other area of commodities trading. Perhaps this is one of the reasons why platinum, palladium, and rhodium have become particularly closely linked to the gold market as indicators of fundamental global factors affecting them, since much of the basic information that could determine their futures is either withheld or is just not available.

A second major factor is the clear correlation between market prices, particularly of platinum and gold. This correlation should theoretically not occur because of the vast difference in the fundamental factors that control the supply and demand of these two metals. There is, however, little doubt that it exists in practice, and that the price of platinum in particular moves in sympathy with that of gold. This has major ramifications for the market prices of platinum, and therefore also the prices of the other PGM, specifically palladium and rhodium. It is a basic fact that all the vagaries that influence the gold price are artifically imposed on the daily prices of platinum and the other PGM, even though those factors affecting gold have little to do with the fundamentals that should control the PGM markets.

It has been maintained, and certain 'experts' have agreed, that platinum should trade at a premium to gold on world markets. In the latter half of the 1980s, an ounce of platinum sold for more than US $100 more

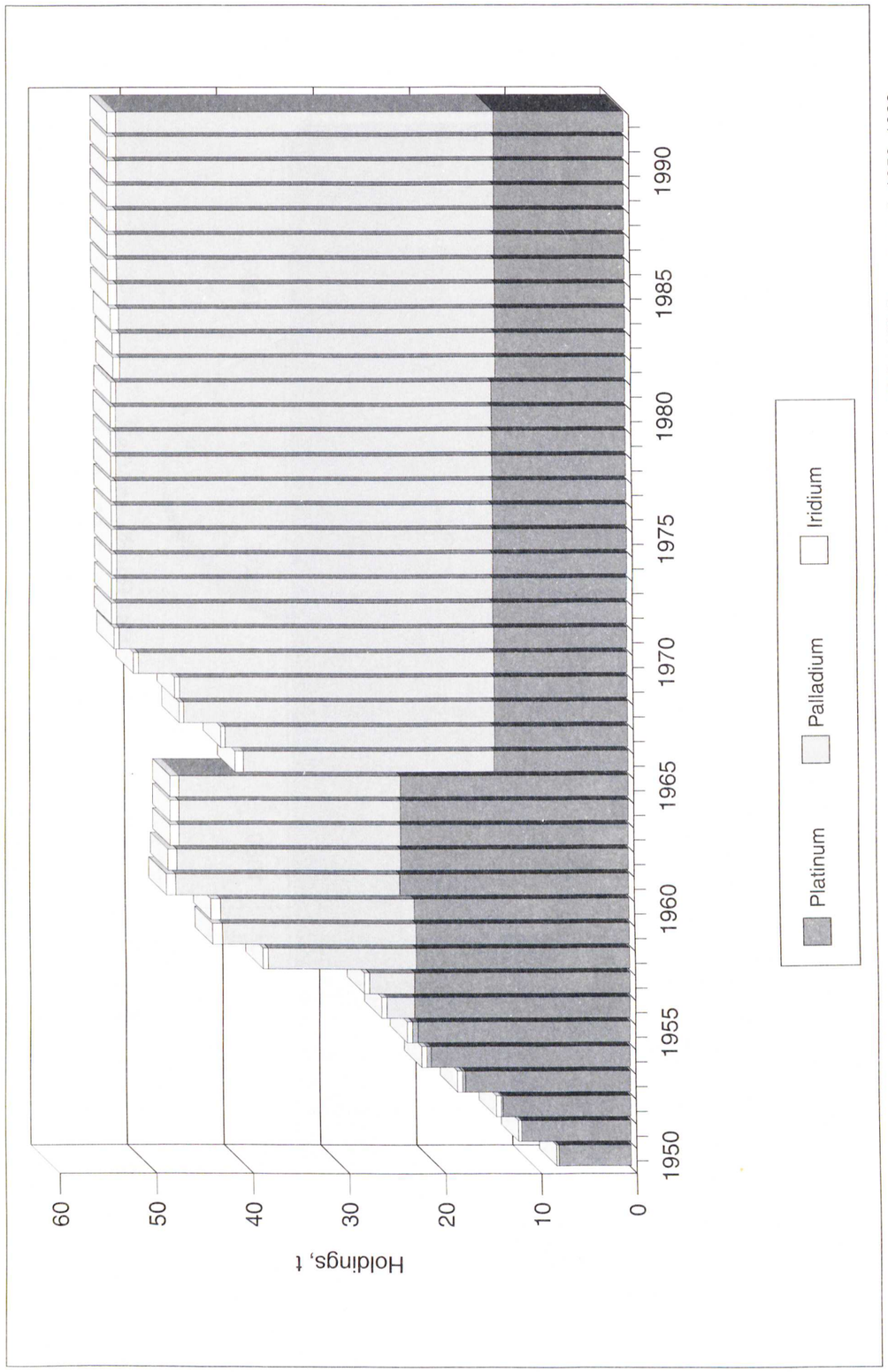

FIGURE 5.4. Holdings of platinum, palladium, and iridium by the General Services Administration of the US Government, 1950–1992