The Establishment of Iron Ore Giants: Hamersley Iron and the Mount Newman Mining Company, 1961–1969

By DAVID LEE

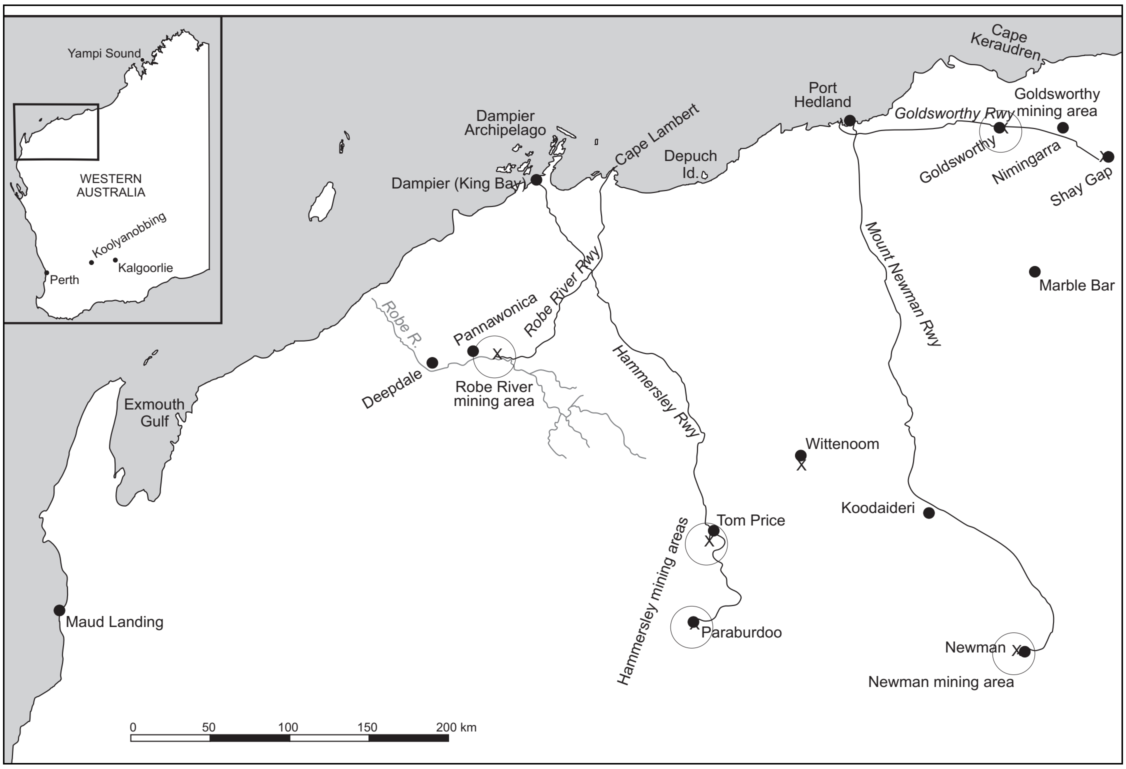
Director of the Historical Publications and Information Section, Department of Foreign Affairs and Trade, and Adjunct Professor in History, Deakin University.

Between 1938 and 1960 the Australian Government prohibited export of iron ore because of its belief that Australia's limited accessible reserves of iron ore had to be preserved for the Broken Hill Proprietary Company (BHP) and the Australian steel industry. After the Commonwealth hesitantly relaxed the embargo in November 1960 to encourage exploration, independent Australian prospectors Lang Hancock and Stan Hilditch revealed that they had already discovered huge deposits of iron ore in the Pilbara in Western Australia. This article explores the development of companies to mine these deposits during a period when the Australian Government, although lifting the iron embargo, attempted to regulate the prices that the companies negotiated with their buyers. The success of the two largest iron ore companies, Hamersley Iron and the Mount Newman Company, was based on their signing long-term contracts with the Japanese steel industry, which permitted them to obtain the considerable foreign capital needed to finance the infrastructure for mines located hundreds of kilometres from the coast. While that was the case and while Hancock and Hilditch were forced to approach overseas miners to initiate the development of mining companies, Australian management of both operations was also an essential part of the success of both ventures.

End of the embargo, and iron ore discoveries of Lang Hancock and Stan Hilditch

The embargo of iron ore from 1938 to 1960 was a period of steady growth in the Australian steel industry and of BHP, so much so that BHP's management became strongly wedded to the maintenance of the export ban well after the Pacific War had ended. In 1960 BHP was still advising the Menzies Government not to lift the embargo.[1] Between the First and Second World Wars, BHP had built up an industry which used Australian ore to produce iron and steel products at low cost. BHP's virtual monopoly of the iron and steel industry was based on mining solid hematite hills in South Australia's Middleback Ranges.[2] The steel industry was based in New South Wales, whose abundant reserves of coal near tidewater suited the construction of steelworks in Newcastle and Port Kembla.[3] Western Australia also had deposits of iron ore and in 1935 expressed an interest in developing them to sell to Japan.[4] By 1938, however, the Lyons Government had become nervous about Japan and in that year imposed an embargo on the export of any iron ore from Australia. The Commonwealth Government's determination to keep the embargo in place for more than two decades following 1938 was underpinned by official estimates that Australia's maximum reserves of recoverable iron ore did not exceed about 350 million tons.[5] The justification of the embargo became the need to preserve limited iron ore reserves for the Australian steel industry and thus for BHP. In the 1950s the Western Australian Government unsuccessfully sought to have the ban lifted. By late 1959, however, the Department of National Development and its Bureau of Mineral Resources, previously in favour of retention of the embargo, had come to support an experimental and cautious relaxation notwithstanding BHP's advice. Responding to the need to develop Australian exports to counter an adverse balance of payments and to pressure from the Western Australian Government, the Menzies Government partially relaxed the embargo in November 1960 in order to encourage exploration. At the same time, it hedged its bets by reserving for Australian industry the three largest high-grade deposits in the Middleback Ranges in South Australia and Yampi Sound and Koolyanobbing in Western Australia.[6]

Figure 1: *Iron ore Map of Pilbara*



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A Western Australian pastoralist and prospector, Lang Hancock had discovered large deposits of iron ore in the Hamersley Ranges of the Pilbara in the 1950s.[7] While the embargo was still in place Hancock kept his iron ore discoveries a secret. After the embargo was relaxed, he informed the British Rio Tinto Company of the nature of his discoveries. Formed in 1873 to mine copper along the Rio Tinto in Spain, the company sold two-thirds of its stake in the Spanish mine in 1954 and used the proceeds to finance a program of mineral exploration around the world. Under the chairmanship of J.V.L. (later Sir Val) Duncan, Rio Tinto set up a subsidiary in Australia that found immediate success in purchasing rights to the Mary Kathleen reserves of uranium in north-west Queensland.[8] Hancock and his partner, Peter Wright (the Hanwright partnership), struck up a relationship with Rio Tinto in Australia in the late 1950s. It was largely because of Hanwright's knowledge of where to find asbestos and, more importantly, manganese, that the company signed an agreement with the two men on 11 September 1959. Rio Tinto undertook to pay Hancock and Wright a royalty of 2.5 per cent on gross sales of all minerals for which they had titles in the Pilbara, except manganese for which special arrangements were made. The Pilbara is an area about twice the size of Victoria with a population at the time of about two thousand people.[9]

Having decided that mining manganese in Western Australia would not be commercially viable. Rio Tinto turned its attention in early 1961 to Hancock's iron ore finds. At that time, the cost of rail freight in eastern Australia at about six-pence a ton-mile from Broken Hill to Port Pirie, and from Mount Isa to Townsville, was a deterrent even to investigating the possibility. These costs made mining minerals at considerable distance from the coast a marginal proposition. However, a 1961 Rio Tinto study of the economics of private railway estimated that minerals could be freighted for twopence a ton mile in the Pilbara, thus making feasible operations even hundreds of kilometres from the coast.[10] In the hopes of developing the ore profitably, Hancock, Wright and Rio Tinto secured from the Brand Government ten temporary reserves, each limited to 130 square kilometres. By 1963 the Hamersley iron ore discoveries were being classed as among the greatest mineral finds in Australian history.[11]

Another manganese prospector, Stan Hilditch, discovered comparable deposits in the Pilbara's Ophthalmia Ranges in 1957. Financed by the Sydney-based mining entrepreneur, Charles Warman, Hilditch roamed the north of Western Australia with his wife in search of mineral deposits. The hope of finding manganese took him in 1957 to the Ophthalmia Ranges where he climbed what later came to be known as Mount Whaleback, the biggest of the Mount Newman mines. He realised immediately that he was standing atop a massive body of iron ore but, like Hancock, kept the discovery secret until the lifting of the Commonwealth embargo at the end of 1960.[12] Hilditch persuaded Warman that they should approach partners to examine the Mount Whaleback area in more detail and obtain temporary reserves from the Western Australian Government. The Australian mining company, Western Mining Corporation, was deterred by the distance of the deposits from the coast and Rio Tinto proved reluctant to add the deposits in the Ophthalmia Range to their enterprises in the Hamersley Range.[13] In the end, unable to find partners, Hilditch and Warman sought temporary reserves over the Newman area in their own names. In July 1961 and April 1963 the Western Australian Government granted them exploratory rights over several areas in the Mount Newman district.

The first sign of real interest in the Mount Newman deposits by a mining company came in 1963, when American Metal Climax (AMAX), sent out a geologist and mining engineer to inspect the site. AMAX was a large American company with extensive interests in various parts of the world in mining, smelting and metals fabrication.[14] It was best known for its Climax mine in Colorado, which produced most of the world's molybdenum.[15] In June 1963 its wholly owned subsidiary, the Mount Newman Iron Ore Company, entered into an exclusive agreement with Hilditch and Warman to explore and develop the Mount Newman reserves. In March 1961 the

Western Australian Government had called for tenders to mine the Mount Goldsworthy deposits, which had been known before the lifting of the embargo. In 1962 the Brand Government awarded a mineral lease to a consortium of one local and two American mining companies: Consolidated Goldfields Australia, Cyprus Mines Corporation of Los Angeles, and Utah Construction and Mining Company of San Francisco.

The Western Australian Pilbara iron ore industry was established on the basis of the private financing of railways, mines and ports, without government financing of infrastructure. In 1962 and 1963, besides the Goldsworthy consortium, the Brand Government was negotiating with a number of companies, the foremost of which were Rio Tinto (later Conzinc Riotinto of Australia) in the Hamersley Range, AMAX at Mount Newman, and the American firm, Cleveland Cliffs, along the Robe River.[16] BHP, which had initially been sceptical about the prospect of iron ore discoveries, had reserves at Yampi Sound and Koolyanobbing, which it was not permitted by the Menzies Government to export, reserves of limonite at Deepdale on the mouth of the Robe River, and other deposits in Queensland.

The one suggestion of a central plan for the emergent Western Australian iron ore industry came, not from Australian governments, but from American shipping magnate Daniel K. Ludwig, whose National Bulk Carriers had become one of America's largest shipping companies.[17] In 1964 Ludwig joined forces with Hancock in approaching the Brand Government for temporary reserves over Nimingarra, two hundred kilometres east of Port Hedland, and Koodaideri, north-west of Mount Newman. In addition, Ludwig proposed to establish a major deep sea port at Cape Keraudren and to build an accompanying railway system, known as the 'complex', which would serve all the companies planning to export ore, these being the Goldsworthy associates, Hamersley Iron, Mount Newman, and Cleveland Cliffs, and BHP on the Robe River.[18] All the ore conveyed to the super-port would be carried by Ludwig's 166,000 ton carriers. The other iron ore companies were hostile to the plan as was Charles Court, the Western Australian minister mainly responsible for the emergent iron ore industry.[19] Court derided the 'complex' as the 'Ludwig benefit'.[20]

The Menzies Government was content to leave the management of the industry to the State of Western Australia, though the Minister for National Development, Senator William Spooner, speculated in August 1962 on whether the Western Australian Government had the 'resources of technical skill, marketing knowledge etc.' to do so.[21] The Commonwealth Government's approach to the iron ore industry would change in 1965, when serious concerns began to be aired about iron ore prices and the shortcomings of uncoordinated competition between substantially foreign-owned iron ore companies. These concerns, which culminated in 1966 in the establishment of federal iron ore guide prices, would later have a major effect on the development of the Hamersley and Newman projects.

The CRA-Kaiser partnership & Hamersley Iron, 1962–65

The formation of a company to mine the Hamersley iron ore deposits had its origins in a series of changes in relationships between overseas mining companies in 1962. In July the British Consolidated Zinc Corporation merged with the Rio Tinto Company to form the Rio Tinto-Zinc Corporation (RTZ) while their Australian subsidiaries, Consolidated Zinc Pty Ltd and the Rio Tinto Mining Company of Australia, came together to form Conzinc Riotinto of Australia Limited (CRA). By the mid-1970s, CRA would become Australia's largest mining house.[22] On its formation the British-controlled but Australian-managed CRA announced that it would be issuing 2,500,000 five-shilling shares to the public, bringing the total Australian interest in CRA to 10 per cent. In the course of developing bauxite deposits in Weipa in northern Queensland, Consolidated Zinc had developed close links with the Kaiser Corporation in the United States. The head of CRA was Maurice Mawby. Mawby and his team of Australian managers had long experience in the Australian mining industry, as well as an understanding of the workings of Australian politics that Duncan lacked. Mawby confided to R.C. Atherton on 26 March 1962, that he doubted that the Brand Government would have granted the temporary reserves to Rio Tinto that it had except for the knowledge that Consolidated Zinc was joining the company.[23] Mawby persuaded Duncan that bringing Kaiser Steel into a partnership with CRA to develop the iron ore deposits in the Hamersley Ranges might help to convince the Western Australian Government to grant mining leases on the basis of the partnership's potential to become a steel maker. In July 1962 Duncan, and other members of the company went to Oakland, California, to negotiate the formation of Hamersley Iron, a new company in which CRA held 60 per cent of the shares and Kaiser 40 per cent, and which was later incorporated under the Victorian *Companies Act*.[24] Though American involvement was important in the success of the new company, Mawby and CRA were clear from the start that Australians would oversee its management. Struan Anderson, who had managed the Rum Jungle uranium project for Consolidated Zinc, became the managing director of the company.

On 7 January 1963 Anderson argued to the Brand Government that because of the heavy capital cost of building a port, railway and new townships, Hamersley Iron should be allowed a period of decades to recoup the cost of its investment before embarking on steelmaking.[25] The Brand Government accepted this reasoning and on 30 July 1963 signed an agreement with the company. Its core was that Hamersley Iron had to spend up to £500,000 on preliminary investigations of the iron ore deposits and construction of railway, port and town sites; to spend not less than £30 million on mining, railways and wharf facilities by 24 March 1968; within ten years of beginning the export of iron ore to spend at least £8 million on a secondary processing plant[26] for iron ore with a production capacity, in seven years, of two million tons per year; and within twenty years of beginning iron ore exports to submit complete plans for an integrated iron and steel industry requiring the investment of at least £40 million pounds.[27] Though Hamersley Iron seriously considered participating in a steel-making consortium at Jervis Bay in New South Wales in the early 1970s, deteriorating world economic conditions in that decade deterred it from going ahead with plans for a steel industry in either the east or west. Western Australia required royalties of 7.5 per cent free on board (f.o.b.) and 3.75 per cent f.o.b. on fines. Before proceeding to negotiate with the Western Australian Government Hamersley Iron had made a generous royalty agreement with Hancock and Wright, including over the Mount Tom Price area that was outside the temporary reserves which Brand had given Hanwright and the company. These royalties would provide the basis of Hancock's wealth.[28] The *Iron Ore (Hamersley Range) Agreement Act*, enacted on 13 November 1963, gave Hamersley temporary reserves totalling 7008 square kilometres from which the company could ultimately secure a mineral lease on an area not exceeding 777 square kilometres.

The ultimate granting of a mineral lease, however, was still conditional on the Western Australian Government being satisfied with the company's engineering plans and its marketing and financial arrangements. Moreover, its contracts had to receive approval from the Minister for National Development. During 1963 the company surveyed a number of possible sites for a port, including Maud Landing, Exmouth Gulf, Cape Preston, Dampier Archipelago, Cape Lambert, Depuch Island and Port Hedland. Finally, the company chose King Bay in the Dampier Archipelago.[29] Though this port required a railway line to take an uphill gradient in its final stages, it was sheltered from cyclone by land mass and islands and had the potential to be expanded. The determination of Mawby and Anderson to overcome Kaiser Steel's preference for Cape Lambert and to choose King Bay as a port was one of the ingredients in the success of the Hamersley venture. This would be illustrated in 1965 when the Mount Newman Iron Ore Company approached Hamersley Iron to share its port facilities.

Having decided on a port, the next task for the company was to design a railway. Basing the final route of the railway on aerial photography, the company planned a path which would climb from the port at Dampier to the mine site across more than 500 culverts and 16 bridges. Hamersley Iron would accomplish the astonishing engineering feat of completing the laying of 292 kilometres of some of the heaviest track in Australia between August 1965 and June 1966.[30] Though building the railway was considerably aided by American engineering expertise, CRA was the overall manager of the project, driving it through on schedule.[31] At the mine, ore was drilled and blasted, before being extracted by nine-cubic-metre electric shovels. Following this, it was crushed and loaded onto wagons, before finally, after reaching Dampier, being carried by conveyer belt to berthed ships.

Hamersley Iron estimated the total cost of the project at more than $US100 million, making it the largest investment in initial mine development in Australian history.[32] With the Japanese having agreed in December 1964, to purchase 65.5 million tons of ore over 16 years, the alliance with Kaiser proved a considerable advantage for the borrowing of $US120 million. This investment was the two-thirds of the capital Hamersley needed to borrow to finance the ore project and pellet plant, the remaining third being provided by CRA and Kaiser Steel. As such an enormous sum was beyond the capacity of the Australian capital market to provide *in toto*, Kaiser Steel approached the Bank of America, then the biggest bank in the world, which in the early months of 1965 put together a consortium of eleven banks to evaluate Hamersley's prospects.[33] Negotiated during a time when US President Lyndon Johnson was trying to protect the US balance of payments by discouraging American banks from making large loans abroad, the banking consortium had a number of concerns.[34] Foremost among these were doubts about the long-range capacity of the Japanese steel industry, and worry at the prospect of the Mount Newman project combining with Hamersley to bring so much iron ore onto the market at the one time that the price of iron ore would be depressed. After arduous negotiation and the advocacy of Australian Treasurer, Harold Holt, and US Ambassador to Australia, Ed Clark, the banks agreed to provide the finance.[35]

The CSR–AMAX Partnership: The Mount Newman Iron Ore Company, 1963–65

In June 1964 AMAX approached the Australian financier Sir Ian Potter about possible Australian partners and financing options for the Newman project.[36] Potter persuaded the Colonial Sugar Refining Company (CSR) to join American Metal Climax with a 35 per cent stake in the Mount Newman Iron Ore Company and an option to go up to 45 per cent, with the remaining equity to be held by AMAX. Heading CSR was Sir James Vernon, an industrial chemist who had risen to the position of General Manager of the Company in 1958. Much respected by the Menzies ministry, he had been appointed in 1963 to head a committee of economic enquiry in Australia. His company, whose virtual monopoly of sugar production had been well established by the 1930s, had diversified to maintain its expansion in succeeding decades. It had been closely associated with the Pilbara through asbestos mining at Wittenoom, 160 kilometres from Newman, and was also involving itself in mining bauxite at Gove in the Northern Territory.[37] CSR availed itself of the option to take 45 per cent equity in the Mount Newman Iron Ore Company in late 1964. In the period from 1964 to 1966, Vernon played a crucial role in establishing Mount Newman as a viable project with majority Australian equity.

On 26 August 1964, the Mount Newman Iron Ore Company, a CSR-AMAX partnership, signed an agreement with the Western Australian Government with similar conditions to Hamersley's. This agreement was later incorporated in the *Iron Ore (Mount Newman) Agreement Act 1964*. After the Johnson Administration took its decision in 1965 to restrict American loans to finance overseas projects, AMAX agreed that it would lower its stake to an equal partnership in the project with CSR.[38] The 50 per cent Australian equity in Newman gave that project enormous prestige in Australia, but also placed a huge burden on CSR in terms of raising capital.

On 11 October 1964, through its application to the Menzies Government for approval to export 210 million tons of ore over a period of 21 years commencing at the end of the decade, the Mount Newman Iron Ore Company laid claims to be one of the two largest iron ore companies in Australia.[39] Cabinet approved the proposal on 11 November 1964 subject to the Minister for National Development deeming that the price eventually negotiated was reasonable.[40] Not long afterwards, on 30 January 1965, Japanese steel mills accepted Newman's offer to sell 100 million tons of iron ore over a period of about 21 years and proceeded to negotiate a price.[41] By March 1965, however, other Australian companies were becoming concerned at the price for ore that the Hamersley and Newman companies were negotiating in Japan at around the same time. Sir Gordon Lindesay Clark, the Chairman of Western Mining Corporation - one of the smallest iron ore operations but an Australian-owned entity - complained bitterly to Harold Holt that the prices negotiated by the two largest iron ore projects would represent a loss to Australia of $US10 million per annum. He urged on Holt the need for federal iron ore policy that prevented smaller suppliers being frozen out of the development of other deposits.[42] The Treasury agreed, warning its minister of the possibility that ‘Australia’s iron ore resources are being sold to foreigners for a song’.[43]

The changing climate of opinion in government and business circles about the iron ore industry came at an unfortunate time for the Mount Newman Iron Ore Company, which had still to have its iron ore prices approved by the government. By this time the Minister for Trade and Industry and Deputy Prime Minister, John McEwen, and the Minister for National Development, David Fairbairn, had become concerned about the erosion of iron ore prices. While Fairbairn agreed that prices for Australian iron ore had been effectively cut back as a result of commercial bargaining with the Japanese in 1964 and 1965, he felt that the Goldsworthy associates and Hamersley Iron, whose prices he had already approved, should be allowed to finalise their contracts. He would not vouchsafe the even lower Newman prices that he had not yet approved and would submit to cabinet. McEwen wanted more drastic action. He recommended to his cabinet colleagues on 8 April 1965 that Fairbairn should instruct Hamersley and the Goldsworthy associates not to conclude their contracts with the Japanese, pending a complete overhaul of federal iron ore policy.[44] If this were not done immediately, he warned, ‘it would scarcely be possible to influence the prices negotiated by other companies in the future’.[45] Cabinet baulked at taking this step and on 8 April left the matter for decision by Menzies and Fairbairn, who the next day decided that the Goldsworthy and Hamersley contracts had to be allowed to proceed.[46]

A moment of decision for the company came when the Newman contract was placed before cabinet in a submission on 23 April 1965. Fairbairn explained that that company had negotiated a price of 14.31 cents per unit f.o.b. for quantities up to five million tons per annum, 13.875 cents per unit f.o.b. for quantities in excess of five million tons per annum, plus discounts on the total amount payable by the Japanese depending on the quantity in excess of five million tons in any year.[47] The Japanese steel industry hailed the Newman contract as an astonishingly good one for Japan. These prices, Fairbairn estimated, were 4.6 per cent lower than the Hamersley prices on quantities up to five million tons per year, and nearly 15 per cent lower in respect of quantities over five million tons per year. Fairbairn inclined to the view that cabinet should take action on the Mount Newman contract, since its operations were not scheduled to commence until 1969, while Hamersley and Goldsworthy were to start in 1966. The options he put to his colleagues were simply to object to the Mount Newman price or to go further and insist on Newman negotiating on the basis of Hamersley’s prices. In the bigger picture, he thought that the Commonwealth could ask the States to insist on higher royalties, encourage the sellers to form a consortium or take a larger step and promote the formation of an international iron exporters’ cartel.[48]

When cabinet considered Fairbairn’s submission on 18 May 1965, it was unable to take a decision, and authorised Menzies to consult with Vernon.[49] Vernon pleaded with Menzies that the price for Newman’s 100 million tons, representing one of the largest iron ore contracts in the world, was reasonable. The price in his estimation was only two per cent lower than Hamersley’s ‘all things taken in’.[50] Vernon admitted that the Japanese had used a government-backed consortium in a form of negotiations that had 'done murder' against Australian coal companies.[51] But he made three major arguments to Menzies. The first was that the Australian stake in Mount Newman through CSR's 50 per cent equity meant that £A310 million out of £A418 million export earnings over 22 years would remain in Australia. The second was that, while with hindsight it would have been advantageous to set up an exporters' consortium among Australian suppliers when the embargo was lifted, he doubted whether an Australian consortium could now be established. The third and most decisive was that if the Commonwealth Government decided that Mount Newman had to go back and renegotiate, there would be no contract and the whole Newman enterprise would fail.[52]

Vernon's stature as a businessman and adviser to government, and the effectiveness of his representations to Menzies in May 1965, were crucial to the ultimate success of the Newman enterprise.[53] Menzies conceded Vernon's submission and in effect took a decision outside the cabinet room. On 26 May 1965 his colleagues rubber-stamped it. 'A highly controlled and unified demand', cabinet lamented, 'had in this case operated against a scattered and disorganised supply and so forced down the price'.[54] But cabinet confirmed Menzies' decision that the government's approval of the sale of 100 million tons of ore from Mount Newman was 'beyond recall' and that federal endorsement of the price should not be withheld.[55] At the same time cabinet decided that in the future there should be entirely new arrangements for the sale of iron ore and an arrangement by which the operating company, the State and the Commonwealth, were in close consultation from the beginning. Now worried that the uncoordinated development of iron companies had led to duplication, over-capitalisation and under-pricing of Australia's mineral resources, the Menzies Government resolved to establish a guide or floor price for iron ore that were above the Mount Newman prices.[56] The decision created major problems for Hamersley and CSR was still left with the daunting task of raising an unprecedented sum from the Australian capital market to finance its share of Newman.

Problems of Export Approvals and Finance, 1965–66

Hamersley Iron had a harder task convincing the Commonwealth Government to approve its iron ore prices after the Commonwealth's action on the Newman price and its resolution to introduce tougher iron ore guidelines. On 24 August 1965 Hamersley sought permission from the Menzies Government to export 16 million tons of iron ore pellets, at the rate of one million tons per year from 1968 onward. The deal would enable the company to construct an iron ore pellet plant in conformity with its 1963 agreement with the Western Australian Government. The prices for Hamersley pellets were lower than those negotiated simultaneously by Cleveland Cliffs for the sale of 71.4 million tons of Robe River pelletised ore, commencing in 1969.[57] As Mawby explained to Fairbairn, the Japanese were making an allowance to Cleveland Cliffs, which was commencing from scratch to build railway, mine and port, whereas Hamersley was well on the way to constructing its facilities. The Hamersley request placed the Menzies Government in a dilemma. On the one hand, Hamersley's pellet prices were clearly not equal to the best that could be secured from the Japanese. On the other hand, refusing the deal might jeopardise the Australian aim to become the dominant supplier of iron ore to Japan. Cabinet made a decision on balance to approve the Hamersley deal.[58]

Hamersley was not so fortunate when it returned in October 1965 with an additional request of the government.[59] The company had by then discovered that it was not economic to establish a pellet plant with an annual throughput of less than two million tons. It had, therefore, negotiated with the Japanese to sell 24.4 million tons of pellets by offering a price reduction on the enlarged tonnage (from 18.5 cents to 18.32 cents). By this time, Western Mining Corporation was strengthening its representations that the Menzies Government should set minimum prices for pellets, and establish an industry committee to discuss iron ore pricing.[60] In the belief that Hamersley would continue building its pellet plant, Fairbairn recommended that cabinet refuse the Hamersley pellet prices.[61] On 30 November 1965 the Menzies Government, with McEwen in the van, endorsed Fairbairn's recommendation. It was the first time that an Australian government had intervened to stop a commercial deal of such magnitude except for defence reasons.[62]

Hamersley Iron's successful navigation of the ensuing difficult episode in its history was largely due to Mawby's deft management. Stunned as he was by the decision, the Hamersley Chairman protested to Menzies that the government's decision not only meant the loss of eight million dollars of additional pellet sales, but also the annual income of 18 million dollars from the whole Hamersley pellet project. He added:

> It seems entirely unreal to me that this great industrial enterprise [the Hamersley pellet plant], bringing in 18 million dollars a year and doing so much to develop the North West, can founder on a token price reduction (in accordance with established business practice) which, in fact, vastly improves the economics of the project.[63]

Mawby expressed himself at a loss to understand the 'reasoning behind this extraordinary, and what appears to be anti-Australian, decision'.[64] Eventually, Mawby solved Hamersley's pellet problem by renegotiating with the Japanese to sell Hamersley's original 16 million ton of pellets over ten years rather than sixteen, thus giving it the throughput to make construction of a pellet plant economical. The government would still, however, not allow it to sell the additional 8.64 million tons at a lower price.[65] Hamersley thereafter nursed grievances over the Menzies Government's refusal of its second pellet deal, and a greater one when in May 1966 the Holt Government introduced guideline prices for iron ore sales that were above the prices Newman had negotiated in 1965. From then onward, Mawby persistently argued that the Commonwealth Government was disadvantaging Hamersley by having approved the 1965 Newman deal, and then introducing floor prices in 1966 above those same Newman prices.

It was ironic, early in 1966, that the Mount Newman Iron Ore Company, in dire financial trouble, was forced to approach Hamersley Iron for sharing of rail and port facilities. Mount Newman financing at the time was based on AMAX and CSR contributing in equal measure to $US50 million of equity, on their securing $US45 million loans in Australia and $US55 million in the United States. In addition they had to have $US10 million in working capital, making the total $US160 million, with repayment of the debt being spread over 12 years.[66] The company hoped that this sum would finance the railway construction from Mount Newman to Port Hedland and the enlargement of the port. By the end of 1965 it had become clear that the original estimates for the project had risen from US$150 million to about $US200 million, largely because the company had underestimated the cost of dredging Port Hedland to accommodate 60,000-ton Japanese ore carriers. CSR could not meet the increased capital costs of the Newman project, and its debt financing agreement with Australian insurance companies was dependent on the sugar company's retaining its 50 per cent equity. Accordingly, the Japanese steel companies suggested that Mount Newman should approach Goldsworthy and Hamersley for an agreement to share rail and port facilities, though blocking any actual merger with either of the two companies.[67]

While AMAX was predisposed to a merger with Goldsworthy, both CSR and the Holt Government were opposed because that would mean watering down the Australian equity in a merged Goldsworthy - Newman operation. AMAX then approached Kaiser Steel, the US partner in Hamersley Iron, requesting a deal on the basis of Newman's not building a railway all the way to Port Hedland but sharing Hamersley Iron's port facilities at King Bay (later renamed Dampier). The basis of the cooperation would be that Mount Newman would build a railway line to the junction with the Hamersley line. Hamersley Iron would carry ore mined in Mount Newman in return for per ton freight to King Bay, plus a lump sum of $US50 million against those charges.[68] Hamersley Iron arrived at the $US50 million lump sum fee on the basis of its estimate of Mount Newman's capital savings by using King Bay rather than Port Hedland. The Mount Newman Iron Ore Company baulked at the price of cooperation with Hamersley, and Vernon came to Mawby with an alternative suggestion. He wanted Hamersley Iron to sell the harbour for $60 million to a Harbour Board established under Western Australian statute, with joint representation on the board of both Hamersley Iron and Pilbara Iron (the company operated by CSR in the Mount Newman).[69] This suggestion Mawby was determined to resist. On 21 February 1966 negotiations between Hamersley and Newman broke off and in March 1966 Western Australian Premier David Brand flew to Canberra to inform Menzies' successor as Prime Minister, Harold Holt, that there were real difficulties in maintaining the 50 per cent Australian equity in Mount Newman.[70]

With the Mount Newman project again in jeopardy, Holt met with McEwen and Fairbairn and the three ministers decided to intervene. Holt authorised McEwen to try to persuade Frank Coolbaugh, head of AMAX, and Val Duncan, the head of CRA's parent company in London, to agree to Hamersley sharing its port and rail facilities with Mount Newman. In declining the overture Duncan made the intriguing suggestion that, instead, CRA might join CSR and AMAX as a partner in the Mount Newman Company.[71]

With the prospect of a deal with Hamersley closed off, Vernon was again instrumental in constructing a viable solution for the Mount Newman Company. He tried to form a consortium that included BHP and Cleveland Cliffs. BHP's acceptance of the overture was a masterstroke. Cleveland Cliffs was previously planning to build a pellet plant at Cape Preston and to use Robe River limonite deposits to service its export contracts with the Japanese. Through its wholly owned subsidiary, Dampier Mining, BHP had agreed with Cleveland Cliffs to use the plant to treat its Robe River ore, but as yet had made no contracts with the Japanese.[72] BHP and Cleveland Cliffs now decided to prioritise Mount Newman. Each of the four mining companies was expected to have a 25 per cent stake in Mount Newman, except that BHP's share of Mount Newman iron ore would be used in Australian blast furnaces and not exported. Vernon hoped that the four companies, by producing more than the five to eight million tons per year initially contemplated, would together be able to afford the higher capital cost of building the mine, railway and port. If the groups raised $US100 million in the United States and $US100 million in Australia, the equity contributions of the two Australian companies would be $US25 million each, with the remainder borrowed from banks and institutions in Australia.[73]

This plan had to be aborted in August 1966 when Cleveland Cliffs, with capital raising problems of its own, announced that it had to withdraw from the consortium.[74] Although BHP remained in the venture, the period from August to October 1966 became another critical period for the company. By September 1966, the Newman project came under increasing strain when AMAX hinted that if an agreement on the project were not made within weeks, it might have to withdraw from the project. AMAX's main concern was that further lost time would see the cost of the project increase to a level unacceptable to AMAX shareholders.[75] The Mount Newman Iron Ore Company's problems at this juncture stood in stark contrast with those of Hamersley Iron. The latter had by then completed its railway and commenced exporting ore but was having difficulty in getting the Japanese to purchase additional ore at Commonwealth guideline prices.

Breakthroughs for Hamersley Iron and the Mount Newman Company

The first step in restoring the viability of the Mount Newman Mining Company, as its name became in 1967, was renegotiating the 1965 contract that CSR and AMAX had negotiated with the Japanese. This had been for the sale of 100 million tons at annual rates of between five and eight million tons; however the original terms were unprofitable because the rate of throughput was too low.[76] The remaining Newman partners (CSR, BHP and AMAX) negotiated with the Japanese steel mills in October 1966 to persuade them to take a larger annual volume of ore and to take a higher ratio of 'fines' (powdered ore) to lump ore than was originally proposed.[77] Their aim thereby was to have a 15-year amortisation period, as opposed to the 20-year period in the original contract. In the early stages of the contract, the company would be assisted by a higher price and the larger overall cash flow which would result from export of higher tonnages.

At this point Hamersley Iron made a dramatic intervention. On Duncan's instructions and while Mount Newman's negotiations were still proceeding, Hamersley and Goldsworthy offered together to supply from their mines the tonnages of iron ore that Newman had undertaken to supply the Japanese in 1965.[78] If Japan had accepted and the Holt Government had approved the Goldsworthy–Hamersley offer, there would have been only one major iron ore operation in Western Australia, -Hamersley Iron's. In an effort to maintain competition between suppliers operating from two major ports, Japan refused the Hamersley counter-offer and accepted the revised Newman bid. At this point the Holt Government faced the difficult decision of either disapproving a revised Newman contract still below federal guide prices, or approving it and alienating Hamersley. A.J. Campbell, Acting Secretary of the Department of Trade and Industry, worried that time was running out to settle the Newman problem: 'The longer the business is left "unfixed" the greater the risk that the Japanese (despite their obvious desire to keep Newman viable and therefore to benefit from the low prices) will turn elsewhere; or that AMAX will become frustrated with the whole deal; or that BHP will become frustrated and weaned away'.[79] On 25 October 1966 cabinet agreed, taking the view that the revised contract could not result in a less favourable outcome than the sale of 100 million tons under the 1965 contract. They approved it, even though it was still below the Commonwealth guide prices.[80]

The revised contract enabled CSR to overcome the considerable obstacles to provide Australian financing for the project. Vernon and Potter persuaded Australian life offices and banks to invest in the project and, as a sweetener, to take up equity in Pilbara Iron on the basis of a revolution in Australian financing. As the *Australian Financial Review* described it, in effect 'these institutions have broken with Australian tradition by agreeing to make a substantial investment in a mineral project on the basis of anticipated cash flow rather than asset backing'.[81] Ian Potter and Co. raised $44 million of medium and long-term debt for CSR's share of a consortium, the final structure of which was Dampier Mining Co. (BHP) 30 per cent, Pilbara Iron (CSR) 30 per cent, AMAX 25 per cent, Mitsui-Itoh Iron 10 per cent and Selection Limited of Britain 5 per cent.[82]

Meanwhile, Hamersley Iron, galled by the apparently favourable treatment which Newman was receiving, continued to be hampered by the Commonwealth guide prices and Japanese acceptance of a large Newman contract with which it could not compete. Mawby and Russel Madigan, Anderson's successor as managing director of Hamersley Iron, were instrumental in solving the problem. In February 1967 they submitted a proposal to the Japanese steel mills for the sale for lump iron ore, iron ore pellets and fines. This conformed to Commonwealth iron ore guidelines, but the Japanese regarded them as unacceptable and presented a counter-offer below them. After consideration of the Japanese counter-offer, Mawby and Madigan sought approval from the Commonwealth for a package deal of 31 million tons consisting of pellets sold at guide prices, and 15 million lump ore and fines reducing to Mount Newman prices when the latter was in a position to deliver ore in substantial quantities in 1971.[83] The Holt Government refused and insisted on Hamersley's conforming to guide prices.

The failure to approve the deal led to Mawby instigating high-level complaints, notably from Edgar Kaiser, President of Kaiser Industries and spokesman for the American element of Hamersley Iron. In a personal letter to Holt, Kaiser argued that the Commonwealth Government's inflexibility in implementing iron ore guidelines had meant that Hamersley (and Australia) had lost business to Peru. He argued that a

> basic inequity exists in the guideline price due to the fact that Mt Newman base and incremental prices are substantially below guideline prices, Hamersley prices and Mt. Goldsworthy prices. As a result, the Japanese resist placing orders at guideline prices, which are in excess of Mt Newman prices.[84]

Kaiser appealed to Holt to approve a package which, he argued, would improve Australia's foreign exchange by $500 million, provide royalties to the Western Australian Government, result in $100 million corporate taxation, and provide a second pellet plant for King Bay.

By August 1967 Treasury and the Department of National Development had become sympathetic to this view. Only McEwen thought that it was a mistake to abandon the guidelines, as it would, in his view, make the government look foolish and jeopardise future negotiations.[85] The effectiveness of Mawby's campaign against the guidelines outweighed the arguments of those who fought to retain them. Fairbairn was able to persuade cabinet to let him abolish them on 25 August 1967, although BHP, CSR, Mount Goldsworthy and Western Mining Corporation all complained at the government's *volte-face*.[86] Two months later, with the guide prices no longer an inhibition, he was able to announce his approval of Hamersley's application to sell 40 million tons of iron ore.

The November 1967 decision to approve Hamersley's exports was a significant boost for a now public company that had nearly 20 per cent Australian equity as a result of an Australian loan floatation. An even bigger breakthrough came two years later in October 1969 when the Gorton Government approved letters of intent from Hamersley Iron to the Japanese Steel Mills to sell 112 million tons of lump ore and fines in the 15 years from 1972 with an option to sell a further 63 million tons.[87] The decision brought Hamersley's total booked sales in 1969 to 272.5 million tons worth $A2133 million. The breakthrough, which would bring Hamersley's annual production to 28 million tons in 1972 and 38 million tons afterwards, brought the Australian company into the ranks of the world's biggest iron ore producers.[88] Not long afterwards, on 17 November 1969, the Japanese steel mills announced their agreement to purchase an additional 60 million tons of ore from Mount Newman. Including a $350 million agreement to sell BHP 70 million tons of iron ore over 20 years, Mount Newman had a comparable 276 million on its order books worth an estimated $A1890 million.[89] Hamersley and Newman together had become iron ore giants, making up about 70 per cent of export orders from Western Australia, which by the 1970s had become the major supplier of the Japanese steel industry.

Conclusion

The Hamersley and Newman iron ore deposits were both discovered by independent prospectors in the 1950s. Unsuccessful in attracting Australian companies to mine them, particularly as BHP was sceptical in the early 1960s that much new ore would be found, they were forced to approach overseas mining companies: the British Rio Tinto company and American Metal Climax in order to get mines established. Paradoxically, while the iron export embargo had been imposed to prevent Japanese exploitation of Australian iron ore, the Japanese steel industry provided the long-term contracts that permitted the Hamersley and Newman companies to obtain finance to become established. One of the major ingredients in the success of both companies was access to the US capital market through Kaiser Steel and AMAX. Without foreign capital, neither of the ventures would have been successful. At the same time, Australian management of the companies was crucial. It was Sir Maurice Mawby who devised the CRA-Kaiser Steel partnership, who successfully managed a sometime fractious relationship with state and federal governments, and who, with his subordinate managers, oversaw the construction of mine, railway and port in record time. Moreover, Mawby and CRA were mainly responsible for persuading the federal government to modify its iron ore guidelines in 1967, so as to allow Hamersley to compete with Mount Newman in the Japanese market. Sir James Vernon had the imagination to take the significant risk of CSR's investment in the Mount Newman operation, it being largely through his influence with the Menzies Government that he obtained political approval for the project in 1965. When it faced collapse in 1966, it was Vernon who engineered BHP's partnership in the venture, thus enlarging the Australian equity in the company and strengthening its management; and it was he who persuaded conservative Australian institutions to finance it. By 1969 Mawby and Vernon had both played key roles in the establishment of Hamersley Iron and the Mount Newman Company as world-class iron ore mines.

Endnotes

[1] This is demonstrated in the author's forthcoming article 'Reluctant relaxation: The End of the Iron Ore Export Embargo and the Origins of Australia's Mining Boom, 1960–1966', *History Australia*, December 2013.

[2] Harold Raggatt, *Mountains of Ore*, Landsdowne Press, Melbourne, 1968, p. 107.

[3] Peter Thompson and Robert Macklin, *The Big Fella: The Rise and Rise of BHP Billiton*, William Heinemann, Australia, 2009, Chapters, 3, 4 and 5.

[4] Raggatt, *Mountains of Ore*, p. 105.

[5] Memorandum by John McEwen, Minister for External Affairs, 10 May 1940, A981, Australia, 90b, 2, National Archives of Australia (hereafter NAA).

[6] Cabinet decision 1136, 24 November 1960, A4940, C3063, part 1, NAA.

[7] Robert Duffield, *Rogue Bull: The Story of Lang Hancock King of the Pilbara*, Collins, Sydney, 1979, pp. 67-70.

[8] See generally Richard West, *River of Tears: The Rise of the Rio Tinto-Zinc Corporation*, Earth Island Ltd, London, 1972 and R.H. Harding, *Wholeheartedly and at Once: A History of the First Operation of Mary Kathleen Ltd, 1954–1964*, CRA, Melbourne 1994.

[9] Alan Trengove, *Discovery: Stories of Modern Mineral Exploration*, Stockwell Press, Mont Albert, 1979, p. 114.

[10] Alan Trengove, *Adventure in Iron: Hamersley's First Decade*, Stockwell Press, Mont Albert, 1976, pp. 26-7.

[11] Letter from Mawby to A.M. Baer, 28 July 1963, Mawby Papers, Accession 1981.0127, folder 07, University of Melbourne Archives (hereafter UMA).

[12] John McIlwraith, *The First 500 Million: The Mount Newman Story*, BHP–Utah, Perth, 1988, pp. 18-19.

[13] Memorandum from F.S. Anderson to Maurice Mawby, 5 July 1963, Mawby Papers, Folder 62, UMA.

[14] See Stephen M. Voynick, *Climax: the History of Colorado's Climax Molybdenum Mine*, Mountain Press Club Co., Missoula, 1996.

[15] 'Summary of Iron Ore Agreement between State of Western Australia and Mt Newman Iron Ore Company Ltd', 11 October 1964, A4940, C3063 part 2, NAA.

[16] For the background to Cleveland Cliffs see Terry S. Reynolds and Virginia P. Dawson, *Iron Will: Cleveland-Cliffs and the Mining of Iron Ore, 1947–2006*, Wayne State University Press, Detroit, 2011.
[17] See Jerry Shields, *The Invisible Billionaire, Daniel Ludwig*, Houghton Mifflin, Boston, 1986.
[18] Memorandum by F.S. Anderson of discussions with Charles Court, 15 August 1964, Mawby Papers, folder 58, UMA.
[19] See generally, Ronda Jamison, *Charles Court*, St George Books, Osborne Park, 2011.
[20] Duffield, *Rogue Bull*, pp. 85-7.
[21] Minute from Sir William Spooner to Harold Raggatt, Secretary of the Department of National Development, 17 August 1962, M2576, 4, NAA.
[22] Kosmas Tsokhas*, Beyond Dependence: Companies, Labour Processes and Australian Mining,* Oxford University Press, Melbourne, 1986, pp. 39-41.
[23] Letter from Mawby to R.C. Atherton, 26 March 1962, Mawby Papers, folder 02, UMA.
[24] Memorandum of association between Kaiser Steel and the Rio Tinto Mining Company, 11 July 1962, Mawby Papers, folder 96, UMA.
[25] Trengove, *Adventure in Iron,* pp. 50-1; Tsokhas, *Beyond Dependence*, pp. 66-8.
[26] Pelletising was a process, requiring secondary facilities, of moulding matter into pellets to feed into a blast furnace.
[27] Trengove, *Adventure in Iron*, pp. 156-66.
[28] See Neill Phillipson, *Hancock: Man of Iron*, Wren Publishing, Melbourne, 1974, p. 66-9.
[29] Memorandum from Anderson to Mawby, 25 September 1963, Mawby Papers, folder 62, UMA.
[30] 'The nation's heaviest track took only 10 months to build', *Australian Financial Review*, 8 November 1966; John Joyce and Allan Tilley, *Railways in the Pilbara*, J & A Publications, Wembley, 1980, pp. 41-2.
[31] In 1978 George Hills, head of Central Engineering Services, a Consolidated Zinc subsidiary, was awarded the President's Medal of the Australian Institute of Mining and Metallurgy for his contributions to the mining industry, principally to Hamersley Iron. Trengove, *Discovery*, p. 127.
[32] *Ibid.*, p. 122.
[33] Trengove, *Adventure in Iron*, pp. 77-81.
[34] Letter from Mawby to Robert Menzies, 21 April 1965, Mawby Papers, folder 143, UMA.
[35] Letter from Mawby to Menzies, 21 May 1965, Mawby Papers, folder 142, UMA.
[36] Peter Yule, *Ian Potter: Financier, Philanthropist and Patron of the Arts*, Miegunyah Press, Carlton, 2006, pp. 247-8.
[37] Grant Fleming, David Merrett and Simon Ville, *The Big End of Town: Big Business and Corporate Leadership in Twentieth Century Australia*, Cambridge University Press, Cambridge, 2004, pp. 104-5.
[38] Letter from John Payne, Director of the Mount Newman Iron Ore Company, to John McEwen, 26 February 1965, M2568, 81, NAA.
[39] Letter from Payne to the Secretary of the Department of National Development, 19 June 1964, A4940, C3063, part 2, NAA.
[40] *Ibid.,* Cabinet decision 620, 11 November 1964.
[41] Letter from John Payne, Mount Newman Iron Ore Company to John McEwen, 26 February 1965, M2568, 81, NAA.
[42] Letter from Clark to Holt, 12 March 1965, A4940, C3063, part 2, NAA.
[43] Minute from J.H. Garrett, First Assistant Secretary, Treasury, to Harold Holt, 29 March 1965, M2568, 152, NAA.
[44] *Ibid.*, letter from A.T. Carmody, Acting Secretary, Department of Trade and Industry, to Sir John Bunting, 8 April 1965.
[45] *Ibid.*
[46] Cabinet decision 857 without memorandum 'Iron Ore Exports,' 8 April 1965, A4940, C3063, part 2, NAA.
[47] Submission 752 from Fairbairn to Cabinet, 'Price of Iron Ore Exports—the Mount Newman Case', 23 April 1965, A4940, C3063, part 2, NAA.
[48] *Ibid.*
[49] Cabinet Decision 958, 18 May 1965, A4940, C3063, part 3, NAA.
[50] *Ibid,* Note for file by Peter Lawler, Deputy Secretary, of discussion between the Prime Minister and Sir James Vernon, 4 June 1965.
[51] *Ibid.*
[52] *Ibid.,* 'Mt Newman Contract Price', CSR paper dated 25 May 1965 left with Menzies.
[53] Memorandum from Gordon Jackson to Sir James Vernon, 6 July 1967, Sir Gordon Jackson Papers, MS 8353, Series 6, Box 9, National Library of Australia.

[54] Cabinet decision 989, 26 May 1965, A4940, C3063, part 3, NAA.
[55] *Ibid.*
[56] 'Prices for ore under fire', *Australian Financial Review*, 6 July 1965.
[57] Submission 613 from Fairbairn to Cabinet, 'Price of Iron Ore Exports—Hamersley Iron', 24 August 1965, A1209, 1961/36, part 3, NAA.
[58] *Ibid.*
[59] Letter from R.T. Madigan, Managing Director Hamersley Iron to Secretary, Department of National Development, 18 October 1965, A4940, C3063, part 3, NAA.
[60] 'Commercial aspects of the Development of Australia's Iron Ore Resources', 10 November 1965, A1209, 1961/36, part 3, NAA.
[61] Submission 1134 from Fairbairn to Cabinet, 'Hamersley Iron—Further Export of Iron Ore Pellets', 15 November 1965, A4940, C3063, part 3, NAA.
[62] 'Govt. rejects Japanese iron ore deal', *Australian Financial Review*, 14 January 1966.
[63] Letter from Mawby to Menzies, 1 December 1965, A1209, 1961/36, part 3, NAA.
[64] *Ibid.*
[65] 'Pellet plant can go ahead', The *Australian*, 30 March 1966; 'Hamersley to go ahead with $45 million plant', *Age*, 30 March 1966.
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[68] Chronology of Hamersley–Newman Relationship, n.d., Mawby Papers, folder 62, UMA.
[69] *Ibid.,* letter from Vernon to Mawby, 17 February 1966.
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[74] 'Mt Newman plans now left to three', *Australian Financial Review*, 23 August 1966.
[75] Mt. Newman iron ore plan in balance', *Australian Financial Review*, 25 September 1966.
[76] Maxwell Newton, 'Ironic Twists', *Nation*, 26 November 1966.
[77] Submission 555 from Fairbairn to Cabinet, 'Proposed Revision of the Mt Newman Contract', 24 October 1966, A1209, 1961/36, part 3, NAA.
[78] Cablegram from Australian Embassy in Tokyo to Department of Department of National Development, 21 October 1966, A1209, 1961/36 part 4, NAA; 'Behind the iron ore offers', *Australian Financial Review*, 27 October 1966; cable from A.J. Rew to Duncan and cable from Trefethen to Mawby, 20 October 1966, Mawby Papers, folder 62, UMA.
[79] Minute from A.J. Campbell, Acting Secretary, Department of Trade and Industry, to McEwen, 25 October 1966, 4940, C3063, part 4, NAA.
[80] Cabinet decision 658, 25 October 1966, A4940, C3063, part 4, NAA.
[81] *Australian Financial Review*, 3 April 1967.
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[86] Statement for press by David Fairbairn on 'Iron Ore Export Policy', 25 August 1967, A1209, 1967/7571, NAA; 'Robe River versus Hamersley: Guidelines Switch Confuses Ore Groups', *Australian Financial Review*, 28 August 1967.
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[88] Trengove, *Adventure in Iron*, p. 108.
[89] 'WA Iron Ore Export Orders Now Top $5000 Millon', *Australian Financial Review'*, 18 November 1969.