Annexure F

Statement of Mr Philip Williams

FMG Application for Declaration of the Mt Newman Rail Track Service

A REPORT PREPARED FOR ALLENS ARTHUR ROBINSON

May 2005

FMG Application for Declaration of the Mt Newman Rail Track Service

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1 Introduction

1 Fortescue Metals Group Limited (FMG) has applied to the National Competition Council (NCC) for a recommendation for declaration of part of the Mt Newman railway line and part of the Goldsworthy railway line in the Pilbara region.[1]

2 We understand that FMG is seeking access in order to operate trains and rolling stock to transport iron ore and iron ore products from Mindy Mindy to export facilities at Port Hedland.

3 In making its recommendation to the relevant minister, the NCC must consider the criteria outlined in Section 44G(2) of the *Trade Practices Act* 1974. This states that:

> The Council cannot recommend that a service be declared unless it is satisfied of all of the following matters:
>
> (a) that access (or increased access) to the service would promote competition in at least one market (whether or not in Australia) other than the market for the service);
>
> (b) that it would be uneconomical for anyone to develop another facility to provide the service;
>
> (c) that the facility is of national significance;
>
> (d) that access to the service can be provided without undue risk to human health or safety;
>
> (e) that access to the service is not already the subject of an effective access regime;
>
> (f) that access (or increased access) to the service would not be contraty to the public interest.

4 Allens Arthur Robinson (AAR) has asked Frontier to comment on issues associated with the application of criterion (a) to FMG's Application for Declaration. This report responds to that request.

5 Consistent with the approach adopted by the NCC in its Issues Paper,[2] this report focuses on issues associated with the service provided by the Mt Newman railway line (the Service) and does not comment on the Goldsworthy railway line service.

6 This report is structured as follows. We:

- outline the principles relevant to defining markets for the purpose of assessing FMG's application for declaration;

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1 Fortescue Metals Group Limited –Application under Part IIIA of the Trade Practices Act 1974 for Declaration of the Service Provided by BHP Billiton Iron Ore Pty Ltd, 11 June 2004.

2 Application by Fortescue Metals Group Limited for Declaration of Services Provided by BHP Billiton Ore Pty ltd , Issues Paper, National Competition Council, 11 March 2005.

- outline the principles relevant to determining whether competition will be promoted by an intervention such as the granting of access to a service;
- specify, by way of background, our assumptions about the counterfactual: the situation that would exist if the Service is not declared;
- review the markets identified by FMG and conclude that of the six markets some make little sense, and that it is not clear that any are markets 'other than the market for the Service';
- outline, for the other dependent markets pleaded by FMG:
  - the extent to which the evidence supports the argument that the relevant activities are undertaken in markets that are distinct from the market in which iron ore production and marketing is undertaken; and
  - consider the likelihood that access or increased access will promote competition in the relevant market;
- summarise our conclusions in section 9.

2 Principles used in market definition

7 Market definition is a tool used to identify and define the boundaries of competition between firms. The main purpose of market definition is to identify in a systematic way the competitive constraints that the participants face.

8 The judgment of French J as a member of the Full Federal Court in *Singapore Airlines Ltd v Taprobane Tours WA Pty Ltd* (1992) ATPR 41-159 provides a classic exposition of the law relating to market definition. One of the passages that is often quoted is the following:

> In competition law it [the concept of 'market'] has a descriptive and a purposive role. It involves fact finding together with evaluative and purposive selection. In any given application it describes a range of economic activities defined by reference to particular economic functions (e.g. manufacturing, wholesale or retail sales), the class or classes of products, be they goods or services, which are the subject of those activities and the geographic area within which those activities occur. In its statutory setting the market designation imposes on the activities which it encompasses limits set by the law for the protection of competition. It involves a choice of the relevant range of activity by reference to economic and commercial realities and the policy of the statutes. To the extent that it must serve statutory policy, the identification will be evaluative and purposive as well as descriptive.[3]

9 The passage contains two points that are highly apposite for the definition of markets in this matter. The first is that the concept of market has a special meaning in the context of competition law. That meaning involves describing a range of economic activities defined with reference to function, product and geography.

10 The second apposite point is that the definition of the market(s) in the context of competition law is both purposive and descriptive. Because the definition of the markets will have implications for the rights and obligations of enterprises, the court or the regulator must accept that markets must be defined in accordance with the policy of the relevant statutes and the question which is to be determined in the matter in issue.[4]

11 Our starting point in considering market definition issues in FMG's Application for Declaration is the seminal definition provided by the Trade Practices Tribunal in *Re Queensland Co-operative Milling Association Ltd and Defiance Holdings Ltd* (1976) ATPR 40-004.

> So a market is a field of actual and potential transactions between buyers and sellers amongst whom there can be strong substitution, at least in the long run, if given sufficient price incentive.

12 The reference to actual and potential transactions in the *QCMA* definition seems to suggest that, if a group of economic activities lies wholly within an enterprise,

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3 *Singapore Airlines v Taprobane*, pp 40,169-70

4 See Decision of the Australian Competition Tribunal in *Re ACCC by Australian Association of Pathology Practices*, 7 April 2004, para 108

then the market must be at least as large as the group of activities. This was a key issue in the appeal to the High Court from the decision of the Full Federal Court in *Queensland Wire Industries Pty Ltd v The Broken Hill Proprietary Company Limited & Anor* (1989) ATPR 40-925.

13 BHP's steel division sold Y-bar only to its associated company, Australian Wire Industries. The Full Federal Court found that, because the sale was to an associated company, there was no effective sale outside the company and, for this reason, there was no market for Y-bar. In effect, it found that the process of making steel and steel products was in the same market as the process of converting the Y-shaped steel into star-picket fence posts.

14 The High Court rejected this reasoning and found that it was appropriate to allocate these two functions into separate markets – although the reasons differed among the various judgments. Three of the judgments addressed the issue of whether actual trades were necessary in order to determine the boundary of a market. Each stated that actual trades were not necessary. In the words of Deane J:

> [A] market can exist if there be the potential for close competition even though none in fact exists. A market will continue to exist even though dealings in it be temporarily dormant or suspended … [and even if] there is no supplier of, nor trade in, … goods at a given time – because, for example, one party is unwilling to enter any transaction at the price or on the conditions set by the other.[5]

15 Following the judgment of the High Court, Professor Brunt commented that, in rejecting the reasoning of the Full Federal Court, the High Court was following the definition of market in *QCMA:*

> The market is the network of actual and potential transactions between buyers and sellers of goods or services which are, or could be, close substitutes. Under what circumstances, we may ask, would the potential for transactions not exist? Answer: when there are such efficiencies of vertical integration, as between Y-bar and star pickets, that market co-ordination between buyers and sellers is superseded by in-house co-ordination. There would, in such a case, be no functional split to create market transactions between stages of production.[6]

16 In this passage, Brunt is contrasting two different methods by which vertically-related activities might be co-ordinated: the co-ordination may take place within an enterprise ('in-house' co-ordination) or across independent enterprises by means of contract ('market co-ordination').[7] Where co-ordination across vertical stages is wholly within an enterprise, one would normally define a market as embracing all those stages. However, if co-ordination within the vertical chain is generally broken by means of a set of transactions, one would normally identify multiple markets – each of which ends with the set of transactions.

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5 *Queensland Wire Industries Pty. Ltd. v The Broken Hill Proprietary Company Limited* (1989) ATPR 40-925 at 50,013

6 Maureen Brunt, *Economic Essays on Australian and New Zealand Competition Law*, International Competition Law Series, Vol 8, Kluwer Law International, p 229

7 The seminal author in the economics literature is Oliver Williamson. See his *Markets and Hierarchies*, Free Press (1975) and *The Economic Institutions of Capitalism*, Free Press (1985).

17 As both the High Court and Professor Brunt have made clear, however, in some cases one may need to identify markets that are bordered not by actual but by potential transactions. The efficiency of co-ordination by means of transactions must be the guide as to the potential for co-ordination by means of transactions.

18 Brunt warns against drawing too hasty an inference that there is scope for potential transactions. She states that there is no scope for potential transactions where there are efficiencies of vertical integration. Where there are such efficiencies, in-house co-ordination will naturally supersede co-ordination by means of markets; and separate markets should not be defined.

19 To define the primary and dependent markets within which the activities of prospecting for, mining, transporting and marketing iron ore from the Pilbara are currently undertaken it is necessary to consider evidence of the potential for transactions. This means examining the evidence as to the efficiency of breaking up the activities that are currently co-ordinated within single firms in the Pilbara and co-ordinating these via contracts between separate firms.

3 Promotion of competition

20 Economics has no single definition of competition and no simple metric by which the degree of competition in a market can be measured. It is fair to say that the starting point for analyses of the effects on competition of a particular action by a firm or a public policy intervention is the 'structure-conduct-performance' schema.[8] This schema sets out how economic theory links the structure of markets to the conduct of enterprises in those markets and to the economic performance achieved as a result of that conduct. That is, it establishes that the structure of a market is a key determinant of the level of competition in that market.

21 This was recognised by the Trade Practices Tribunal in *QCMA*:[9]

> Competition is a process rather than a situation. Nevertheless, whether firms compete is very much a matter of the structure of the markets in which they operate.

22 The structure of a market includes factors such as the number of buyers and sellers, the level of barriers to entry, the degree of vertical integration, and the cost structures of firms.

23 However, it is also well established in the economics literature that a host of factors other than market structure will influence the degree of competition in a market.[10] These factors include, for example, the structure of demand, public policy interventions, and the nature of technological change.

24 To assess whether access would promote competition one would examine the ways in which providing access to the Service would affect the factors that influence the state of competition in the relevant market.

25 Furthermore, any proper assessment of competition within the context of an antitrust statute must be associated with economic efficiency. This point was also made by the Trade Practices Tribunal in *QCMA*:[11]

> Competition may be valued for many reasons as serving economic, social and political goals. But in identifying the existence of competition in particular industries or markets, we must focus on its economic role as a device for controlling the disposition of society's resources. Thus we think of competition as a mechanism for discovery of market information and for enforcement of business decisions in the light of this information. It is a mechanism, first, for firms discovering the kind of goods and services the community wants and the manner in which these may be supplied in the cheapest possible way.

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8 The structure-conduct-performance schema is outlined in some detail in Joe S Bain's ***Industrial Organisation***, Wiley 2ND Edition, 1968

9 *Re QCMA and Defiance Holdings* (1976), 40-012 at 17,245

10 See, for example, the discussion in F M Scherer and David Ross, ***Industrial Market Structure and Economic Performance***, 3rd Edition, Houghton Mifflin Company 1990. This text was a standard undergraduate industrial organisation textbook of the 1990s.

11 *Re QCMA and Defiance Holdings* (1976), 40-012 at 17,246

26 In the context of the Application for Declaration, competition must be of the kind that promotes economic efficiency and is in the long-term interests of consumers. That is, the competition that is being considered cannot be an artificial form of rivalry that can only be sustained because of a support system of law or regulation. Competition should be encouraged, and deemed to be promoted, where it will be an efficient outcome.

27 This approach to assessing the promotion of competition is consistent with the approach to market definition outlined in section 2. A consequence of adopting an efficiency standard for defining markets in terms of potential transactions is that a market can only be thought to exist, and criterion (a) can only be satisfied, if competition is likely to be of the kind that promotes economic efficiency.

4 The counterfactual: the future without declaration

28 The assessment of the impact of declaration is essentially a 'with' and 'without' test. That is, in considering whether criterion (a) is satisfied, the NCC must:

> ..look to the future on a similar basis to the way it [the Tribunal] looks at the authorisation provisions, namely the future with or without declaration.[12]

29 In order to assess whether declaration will promote competition in a dependent market it is necessary to specify what the future will look like in the absence of declaration.

30 FMG has publicly stated that it is committed to constructing its own rail facility to transport its ore from Mt Nicholas/Christmas Creek to Port Hedland.

31 The route of FMG's proposed railway line will follow relatively closely the route of the Mount Newman railway line from Port Hedland to the Chichester Ranges. That is FMG is stating that it will construct a duplicate facility for approximately 200 kilometres of the 295 kilometres of Mount Newman railway line used to provide the Service that it is seeking to have declared.

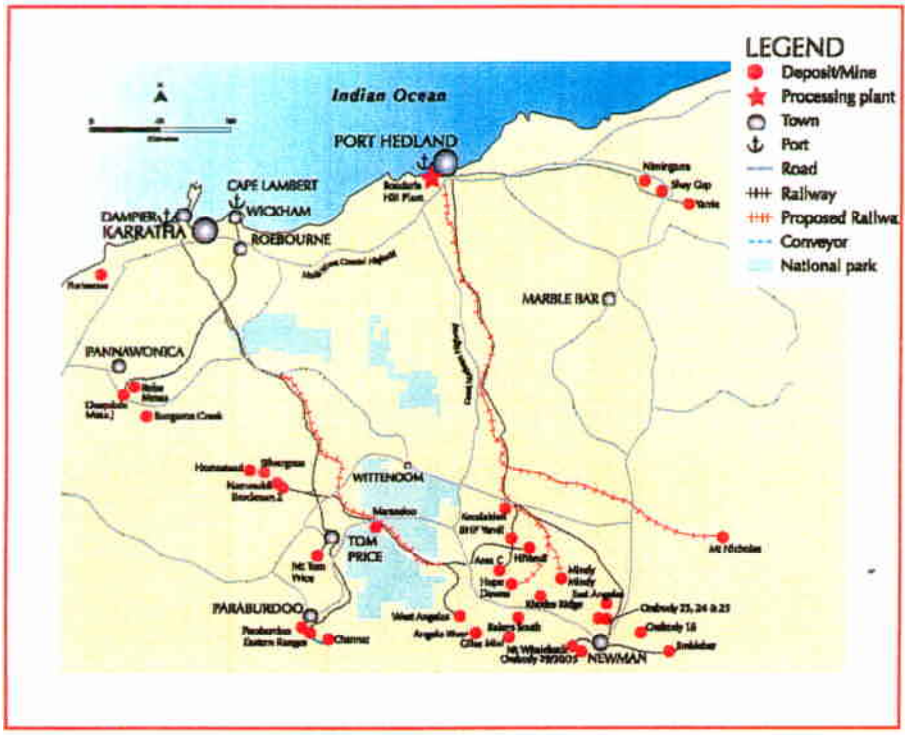
32 In addition to the proposed FMG railway line, the proponents of the Hope Downs iron ore project are planning and seeking approval to construct a 370 km railway between the Hamersley Ranges and proposed new port facilities at Port Hedlands that will 'replicate the Newman Railway'.[13]

33 The routes of the proposed FMG and Hope Downs railway lines are outlined in the map below.

12 *Sydney International Airport* (2000) ATPR 41-754 at 40,775.

13 The proponents of the Hope Downs project is a joint venture between Hancock Prospecting and South Africa's Kumba Resources. The proponents are aiming to develop a 400 million tonne ore reserve at Hope Downs, which is located around 75kn northwest of Newman. In addition to planning and seeking approvals to develop rail and port facilities Hope Downs has clarified its right under the State Agreement and Rail Transport Agreement to negotiate for BHP Billiton to transport Hope Downs ore on its Mount Newman railway line.

Figure 1: Rail infrastructure and iron ore projects in the Pilbara



Source: Western Australian Iron Ore Industry 2003, Department of Industry and Resources

Note: The Alignment of the Mindy Mindy spur to the Mt Nicholas railway line may follow a different route (as outlined in FMG's 2004 Preliminary Environmental Review (PER))

34 We assume, consistent with their respective public statements, that:

- FMG will construct a rail facility from its proposed Mt Nicholas/Christmas Creek mines to its proposed port facilities at Port Hedland.
- FMG will commence operations at its Mt Nicholas/Christmas Creek mines.
- Hope Downs proposes to construct dedicated rail facilities from Hope Downs to dedicated port facilities at Port Hedland.

35 We are also advised by Rio Tinto that it is uncertain whether Mindy Mindy will ever be developed. Mindy Mindy is the subject of a tenure dispute, no JORC compliant resource has yet been identified at Mindy Mindy, and under FMG's own plans Mindy Mindy will not be developed for at least eight years.

36 FMG states in its Application for Declaration that:[14]

> If the Service is Declared, FMG will utilise access to the Service to operate trains and rolling stock to transport iron ore and iron ore products from Mindy Mindy to port facilities at Port Hedland...'

[14] FMG Application for Declaration, p 7

37 The NCC should have regard to whether Mindy Mindy is likely to be developed in considering FMG's Application for Declaration. If Mindy Mindy will not be developed irrespective of declaration, all other considerations aside, it is extremely difficult to be satisfied that access will promote competition in anything but a trivial way. No other party is seeking declaration of the Service and nor has any other party indicated they would utilise the Service if access is granted.

38 The impact of declaration on competition should be assessed by reference to all competitors and not to a specific party. But criterion (a) can only be properly assessed by reference to specific proposals to use the access rights at issue. Neither the NCC, nor the Minister can be satisfied that there will be a tangible effect on competition in a dependent market in the absence of any real prospect of access being utilised.

39 This point has been made in previous recommendations by the NCC. For example in *Specialised Container Transport* (1997)[15] the NCC noted that:

> The purpose of this Criterion is to ensure that declaration is only recommended where there are or will be tangible benefits that flow beyond the service to which access is sought'

40 If Mindy Mindy is not viable irrespective of whether the Service is declared, in the absence of any other party seeking access, little further analysis is required to conclude that there will be no tangible promotion of competition. Consequently, for the purpose of our report we assume that access may facilitate Mindy Mindy commencing operations (although this assumption may well be incorrect).

[15] ATPR (NCC) 70-004

5 Markets identified by FMG

5.1 DEPENDENT MARKETS PLEADED BY FMG

41 The following dependent markets are pleaded by FMG in its Application for Declaration and its Supplementary Submission:[16]

- a market for iron ore production both within Australia and other countries (referred to as *Iron Ore Production* by FMG);
- a market for the production, development and exploitation of other minerals and products in the Pilbara region requiring transport services from the source of production to port facilities at Port Hedland (referred to as *Other Mineral Ores* by FMG);
- a market for the ownership, development and exploitation of iron ore tenements (referred to as *Iron Ore Tenements* by FMG);
- a market for the haulage of iron ore and other minerals from various mine sites in the Pilbara region (referred to as *Haulage Services* by FMG);
- retail of iron ore and other minerals both as sold at the mine and as sold at export terminals (referred to as *Iron Ore Marketing* by FMG); and
- export of "other products" from Port Hedland in Western Australia by road rail or sea (referred to as *Other Products* by FMG).

5.2 FMG MARKET AREAS EXAMINED FURTHER IN THIS REPORT

42 Some of the markets pleaded by FMG make little sense. In particular, it is not useful to regard other mineral ores and other products as markets for the purpose of assessing the Application for Declaration.

43 Other mineral ores is described by FMG as including minerals ranging from copper, lead, zinc, nickel and molybdenum through to gold. Presumably FMG is not asserting that all these mineral ores are part of the same market but FMG does not identify specific markets for the minerals listed (or for those not listed but falling within the range from molybdenum through to gold). It is not clear what activities FMG is asserting are part of the market for other mineral ores, either as a group of minerals or for each individual mineral.

44 FMG does not elaborate on the description of the market it terms 'other products' that is outlined above in section 5.1. That is, the only description given for this market is that it is the export of "other products" from Port Hedland in Western Australia by road, rail or sea. It is not possible to glean or infer from the

16 Supplementary Submissions Dated 8 July 2004 to the Rail Access Declaration Application Dated 11 June 2004 by Fortescue Metals Group Limited Under Part IIIA of the Trade Practices Act 1974 For Declaration of the Service Provided by Part of the Mt Newman Railway Line and Part of the Goldsworthy Railway Line.

Application for Declaration or the Supplementary Submission what group of activities FMG might regard as being part of this market.

45 The possible range of activities encompassed by FMG's broad descriptions other minerals ores and other products renders them meaningless for the purpose of analysing any effect on competition. It is not possible to determine whether the markets that FMG may have in mind may be fields of actual or potential transactions, or for example, whether there may be complementarities between the activities encompassed within those market of the kinds that are mentioned by Professor Brunt and the Tribunal in *Sydney International Airport*. We do not consider these two market areas any further in this report.

46 In addition, we do not consider it useful to seek to analyse iron ore production separately from iron ore marketing. Firms that produce iron ore also sell the ore produced. Even if subcontractors are used to assist in the production process the firm that owns the right to the ore produced will ultimately market and sell the ore except when a vertically integrated firm uses the iron ore in a downstream (steel-making) process. The production and marketing of a mineral will take place within a single firm and therefore within a single market.

47 In the remainder of this report we focus on considering the application of criterion (a) to the market areas identified by FMG that might conceivably be defined as markets under the TPA. Consequently we focus on the following market areas:

- the production and marketing of iron ore both within Australia and other Countries – ***iron ore production and marketing;***
- the haulage of iron ore and other minerals from various mine sites in the Pilbara region of Western Australia – ***haulage services;*** and
- ownership development and exploitation of iron ore tenements – ***iron ore tenements.***

5.3 THE MARKET IN WHICH THE SERVICE IS PROVIDED

48 FMG describes the Service as the use of the Facility, being:[17]

> (a) that part of the Mt Newman Railway Line which runs from a rail siding that will be connected near Mindy Mindy in the Pilbara to port facilities at Nelson Point in Port Hedland, and is approximately 295 kilometres long…

49 FMG does not define the market in which it considers the Service to be provided either in its Application for Declaration or in its Supplementary Submission.

50 As noted above, criterion (a) requires that the NCC be satisfied that declaration will promote competition in at least one market other than the market for the Service.

51 Defining the market in which the Service is provided is therefore fundamental to determining whether or not the Service should be declared.

17 FMG Application for Declaration, p 3

52 The Mt Newman railway line is currently used for the transportation of iron ore to ports or processing facilities in the Pilbara region. There is no immediate prospect of it being used for the provision of any other services. This is discussed below. Much of the evidence suggests that the market in which the Service is provided is the international market for iron ore. If this is the case, the dependent markets identified by FMG (iron ore production and marketing, haulage, and iron ore tenements) are not separate from the market for Service and the application for declaration should be rejected.

5.3.1 The absence of actual or potential transactions

53 The activities of initial prospecting and exploration of mineral deposits, mining, transporting and marketing of iron ore are undertaken within vertically integrated firms in the Pilbara region. There are no actual transactions to guide the drawing of market boundaries or support the definitions of the markets identified by FMG. Clearly this may be because it is efficient for this vertical chain of activities to be undertaken within a single enterprise. If this is the case, the activities should be defined as being undertaken in a single market.

54 We understand that the efficiencies of vertical integration arise in part because of the need to maintain flexibility in scheduling trains to minimise the cost of producing iron ore to customers' specifications using ore from different mines or parts of mines. Control of train scheduling enables a mine operator to develop the optimum mining plan for each mine and ensure the right quality and quantity of iron ore is delivered from each mine to port at precisely the right time to create the product required for export purposes. Unanticipated variations in the grade or tonnage of ore produced at a particular mine require changes to the blend of ores needed to meet customer specifications with consequent changes to train scheduling. Day-to-day control of dedicated railway facilities is important to enable the mine operator to respond to the small changes that are a normal feature of such mining operations.

55 The efficiency of coordinating the provision of haulage services, mining and marketing of iron ore may also be supported by the reluctance of potential iron ore miners to obtain haulage services using their rights under State Agreements. The 2004 Supreme Court decision in *Hancock Prospecting Pty Ltd v BHP Minerals* confirms that the State Agreement, together with the Rail Transport Agreement, creates enforceable rights for prospective iron ore producers to negotiate to have iron ore carried over the Mt Newman railway.

56 Hancock's position that, irrespective of its rights under the State Agreement and the Rail Transport Agreement, its base case project development plan includes the construction of its own rail facilities[18] suggests that there are significant efficiencies from vertical integration of mining, rail transport, port handling and marketing.

57 This is also supported by FMG's proposal to develop its own line from its proposed Mt Nicholas/Christmas Creek mines to Port Hedland irrespective of

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18 http://www.hopedowns.com/concept.htm

the fact that it will follow the route of the Mt Newman railway line for around 200 kilometres.

58 In summary, the preference for coordination of these activities within iron ore companies supports the proposition that this is an efficient structure. If this is the case there may be little potential for transactions. The Service should be considered part of the international iron ore market and in the same market as those activities (iron ore production and marketing, haulage, and iron ore tenements) that FMG asserts are in dependent markets. The evidence suggests that these activities are not undertaken in markets other than the market for the Service in which case the Application for Declaration should be declined.

59 Notwithstanding this view, given that FMG is arguing that there are distinct dependent markets, in the subsequent sections we consider the dependent markets identified by FMG and outlined in section 5.2 above.

6 Iron ore production and marketing

60 For the purpose of this discussion we have been instructed to consider the market for iron ore production and marketing, leaving to one side the question of whether the Service, haulage services and iron ore tenements are part of this market.

61 Frontier considers that a market for iron ore production and marketing should be defined as a global market that encompasses the principal forms of iron ore produced and sold (fines, lump and pellets).

62 We have not considered in detail the extent to which the market should be defined in terms of seaborne iron ore or total iron ore production. The market should be defined as iron ore production if there is substitution at the margin between iron ore purchased through seaborne trade and from domestic sources. There is some evidence of this occurring (for example in China) but we have not examined the level of substitution in any depth.

63 Irrespective of whether the market is held to be only seaborne iron ore or total iron ore production it is highly unlikely that access to the Mount Newman Railway Service will promote competition in the market. The basis for this market definition is discussed in section 6.1, and the question of whether access will promote competition in this market is discussed in section 6.2.

6.1 MARKET DEFINITION

6.1.1 A global market

64 The market in which iron ore is produced and traded internationally is a global market. The definition is supported by evidence that:

- producers export to customers in a range of locations around the world and customers source iron ore from producers in a variety of countries; and
- the prevailing international price, adjusted for freight costs and ore quality, determines the price each producer receives.

Global trade

65 Approximately 1.2 billion tonnes of iron ore was consumed in 2004. Around half (644 million tonnes) of the total iron ore produced in 2004 was internationally traded. Of this amount, 90 per cent (582 million tonnes) is seaborne trade. The remaining 10 per cent is transported internationally by rail, generally within North America, Europe and the former Soviet Union.

66 The five countries that export the greatest volumes of iron ore, and the five countries that import the greatest volumes are summarised in Table 1.

Table 1: Major importing and exporting countries 2004 (million tonnes)

Five major exporting countries		Five major importing countries	
Australia	225	China	208
Brazil	201	Japan	133
India	65	EU	120
South Africa	26	South Korea	42
Canada	19	Taiwan	16
Total	553	Total	519

Source: RTIO estimate

67 Producers tend to export relatively more to customers located relatively closer to them but significant quantities are also traded between, for example, Australia and Europe, and Brazil and Japan.

68 The proportion of ore supplied by producers in each country to customers in the principal importing countries is outlined in Table 2 below.

Table 2: Source of supplies by country 2003

Exporting countries	Importing countries				
	China	Japan	EU15	South Korea	Taiwan
Australia	39%	61%	14%	64%	63%
Brazil	26%	18%	49%	26%	25%
India	22%	11%	1%	5%	4%
South Africa	6%	4%	4%	3%	1%
Canada	1%	0	12%	0	6%
Mauritania	0	0	7%	0	0
Other	6%	7%	13%	3%	1%
Total	100%	100%	100%	100%	100%

Source: RTIO estimate

69 Table 2 demonstrates that trade in iron ore takes place on a global basis. Producers compete to supply iron ore to all potential customers and customers source their iron ore supplies from a range of producers located around the world.

Single international price

70 In recent years approximately 90 per cent of seaborne traded iron ore has been sold under long-term contracts.[19] These contracts specify ranges for the volumes and quality parameters that must be delivered and the contract price is negotiated annually. Contracts are typically between six and ten years in duration.

71 The annual price negotiation results in a benchmark contract price being established for fines. We understand that leading producers and buyers, meeting separately, hold a series of negotiations to establish the extent of any price change from the previous year. Typically the price change is agreed by reference to the price of a major fine ore brand. Once the first price is established, appropriate adjustments are agreed for other fine ore brands or other ore types (e.g. pellets/lump).

72 In Europe the annual price negotiations result in a nominal delivered price at Rotterdam for a given quality of fines. The prices producers receive for ore from individual mines is determined by reference to the Rotterdam price adjusted for quality differences and freight costs. The basic principle is that all ores of an equivalent quality should arrive at Rotterdam at an equivalent price.

73 In Japan, a free-on-board price is adopted for an ore brand when it is first traded. This price takes into account ore quality, freight costs and other factors that affect its value to the customer. Subsequent annual benchmark price adjustments are then applied to the price agreed for that ore.

74 The parties to the negotiation in which the annual benchmark price is set in Japan and in Europe differ year by year. In the last ten years, however, in Europe, the benchmark price has usually been set in negotiations that involve CVRD. In Japan the benchmark price has been set in negotiations that involve BHP Billion in six out of the last ten years, and in negotiations that involve Hamersley or Robe in the remaining four years.

75 The date on which negotiations were concluded in Japan and in Europe in each year and the annual percentage change in the benchmark price is outlined in Table 3.

19 RTIO estimate. We understand that no official data on spot versus seaborne trade exists. The main spot trade takes between India and China. This trade accounted for around 50 million tonnes in 2004 compared to an overall seaborne iron ore market of around 590 million tonnes. Other spot imports to China are estimated to be in a range of 10-15 million tonnes in 2004.

Table 3: Annual percentage change in benchmark prices 1996-2003

		1996	1997	1998	1999	2000	2001	2002	2003
Japan	Date	25 Jan	21 Jan	21 Jan	16 Feb	29 Feb	26 Mar	29 May	21 May
	%	6.00	1.10	2.82	-11.00	4.35	4.30	-2.40	9.00
Europe	Date	29 Jan	29 Jan	21 Jan	18 Feb	27 Jan	20 Mar	29 May	19 May
	%	6.00	-1.59[1]	2.82	-11.00	5.42	4.31	-2.40	9.00

Source: RTIO data

1 Denotes CIF price settlement. The FOB price change was the same as agreed in Japan

76 The same annual percentage change in the benchmark prices have been agreed in Europe and Japan in all but one year since 1996.

77 There is a well established literature on the use of prices in defining markets. Stigler and Sherwin, in their seminal article,[20] state the following basic definition of an area of a market:

> A market for a good is the area within which the price of a good tends to uniformity, allowance being made for transport costs.

78 Stigler and Sherwin argue that if parallel, or closely correlated price movements are observed at two 'places', then the market should be defined to include both. If there are significant, non-parallel price movements, two distinct markets should be defined unless the discordance in price movements can be traced to changes in transport costs or possibly other processing costs.

79 In summary an international price for iron ore traded in the relevant period is determined by global supply and demand conditions. The price received by all producers around the world is a function of the prevailing international price. The price setting process and the correlation between price changes in different places supports a global market definition.

6.1.2 Fines, lump and pellets

80 Iron ore mines produce a combination of lump and fines. The proportion of total output made up of fines differs across mines as does the quality of the ore (e.g. ferrous content, level of impurities and its metallurgical performance in processing operations and steel production). Fines can be concentrated to produce pellets, although most choose not to do so and sell as fines (sometimes beneficiated so as to increase the iron content or reduce the level of impurities).

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20 George J. Stigler and Robert A. Sherwin. 'The Extent of the Market', *Journal of Law and Economics* vol. 28 (1985), pp 555. The article notes that is essentially the rule articulated by Marshall: "Thus the more nearly perfect a market is the stronger is the tendency for the same price to be paid for the same thing at the same time in all parts of the market: but of course if the market is large, allowance must be made for the expense of delivering the goods to different purchasers…" Alfred Marshall, Principles of Economics (1961)

Some mines produce ores that are lower cost to process into fines.[21] Given that it is unlikely that Mindy Mindy will produce pellets we focus on lump and fines in this discussion.

81 The complementarities in the supply of fines and lump are such that the two types of ore should be regarded as being in the same market. The two forms of ore (lump and fines) are jointly produced as outputs of the same production process. A firm cannot enter the market for the production of lump without also producing and therefore being in the market for fines.

82 Steel manufacturers can use lump, fines (which are sintered or aggregated into clusters prior to use) and pellets. The proportion of each form of iron ore used by each steel manufacturer depends on the plant technology and design. The willingness of steel manufacturers to accept ores of varying qualities and in different forms depends on the price and the impact on the productivity of customers' plant.

83 The combination of ores and the proportion of fines, lump and pellets purchased by each customer will reflect the optimal combination given their plant, the impact on productivity of different ores, and the delivered price of alternative ores.

84 Customers would be expected to switch suppliers to optimise their purchasing in response to, for example, significant non-transitory changes in the relative price of fines, lump and pellets. There is also evidence of customers switching between lump and fines in response to short term output fluctuations. The degree of short-term substitution between lump and fines at individual mills is driven primarily by steel mill output. At times when steel mills are operating at high capacity their sintering facilities are likely to be at full capacity so they will want to purchase a higher proportion of lump. At times of low production, steel mills are likely to purchase relatively more fines to use their available sintering capacity and take advantage of the lower price of fines.

85 Notwithstanding the evidence of switching between the types of ore even in the short-term, the potential for substitution in this market should be considered over a long time horizon because of:

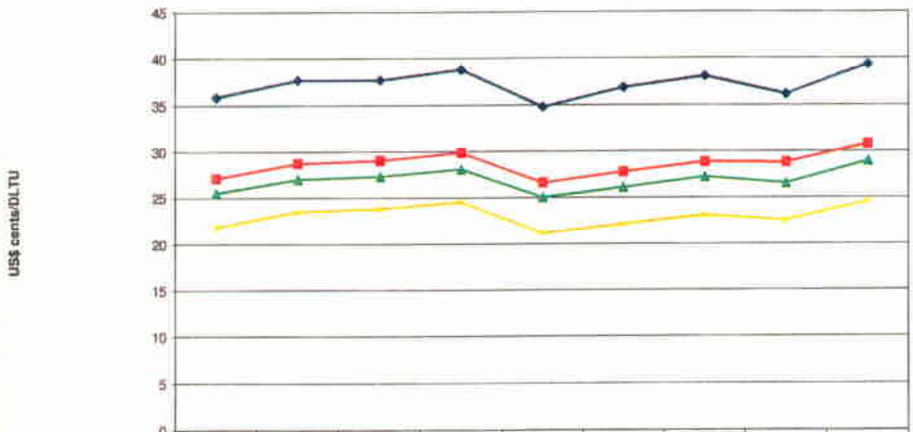
- the use of long-term contracts that specify the ore quality and volumes to be delivered;
- the potential costs and time associated with changing steel manufacturing plant; and
- the time required for mine production capacity to respond to changes in demand.

86 As described in section 6.1.1 however, annual changes in prices of lump, pellets and fines of various quality are determined by reference to the benchmark price

21 Specifically, pellet producers need to grind fines to less than 0.045 mm to use in the pelletising process. As a result they have a strong preference for ores with low silica and alumina to reduce energy costs associated with milling.

agreed for fines. Benchmark price changes are therefore highly correlated. Data on the price obtained for lump and various types of fines from Western Australia sold to Japan is outlined in Figure 2.

Figure 2: FOB prices for Western Australian iron ore in Japan 1995-2003



	1995	1996	1997	1998	1999	2000	2001	2002	2003
Lump	35.89	37.68	37.68	38.79	34.83	36.84	38.03	36.13	39.35
Fines	27.15	28.78	29.1	29.92	26.63	27.79	28.89	28.82	30.83
Yandi Pisolite Fines	25.52	27.05	27.35	28.12	25.03	26.12	27.24	26.58	28.98
Robe Pisolite Fines	21.9	23.53	23.85	24.52	21.23	22.15	23.1	22.55	24.58

Japanese financial year (1 April -31 March)

Source: Western Australian Iron Ore Industry 2003, Department of Industry and Resources, Table 5.1

87 As shown in Figure 2, the prices of lump and fines are highly correlated. The propensity of steel producers to substitute between fines and lump (discussed in paragraph 84) can cause some differential price movements over the cycle but the strong correlation in price movements supports these forms of iron ore being defined as being in the same market.[22]

6.2 WILL ACCESS PROMOTE COMPETITION IN A MARKET FOR IRON ORE?

88 Access to the Service is unlikely to promote competition in the global market for iron ore. This conclusion holds even if we define the market in narrower terms. For example, even if separate markets are defined for seaborne trade in fines or

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22 The correlation in the changes in prices of lump and fines is slightly less than exists for annual price changes in Europe and Japan. This does not undermine the conclusions. As noted in Stigler and Sherwin (1985), prices in a market may differ because transportation and transaction costs differ over time and within a price period and because unanticipated movements in supply and demand in parts of the market may create divergent prices for a limited period of time.

lump it is unlikely that access to the Service will promote competition in the relevant markets.

6.2.1 The structure of the global market for the production and marketing of iron ore

89 The 2004 seaborne exports by company for the largest 16 exporters are presented in Table 4.

Table 4: Seaborne exports by the 16 largest exporters in 2004

	Quantity (million tonnes)	Per cent of total seaborne
CVRD	192.0	35.6%
Rio Tinto	140.0	26.0%
BHP Billiton	98.0	18.2%
Kumba	20.9	3.9%
LKAB	16.8	3.1%
SNIM	12.5	2.3%
CVG	8.9	1.7%
MMTC/NDMC	8.7	1.6%
QCM	8.0	1.5%
CMP	6.5	1.2%
Hierro Peru	6.0	1.1%
KIOCL	6.0	1.1%
Portman	5.9	1.1%
Assoman	5.0	0.9%
Savage River	2.3	0.4%
MGI	1.8	0.3%
Total	**539.3**	100%

Source: RTIO estimates

90 Of the 16 largest exporters of seaborne iron ore shown in Table 4, ten produced less than ten million tonnes in 2004.

91 FMG's PER suggests that a mine at Mindy Mindy (the owner of which (Pilbara Iron Ore) is 50 per cent owner by FMG) may be developed to produce around

10 million tonnes per annum. In this case Mindy Mindy will potentially supply a very small proportion of the world demand. Even if access to the Service facilitates Mindy Mindy commencing production it will not change the structure of the world market for iron ore.

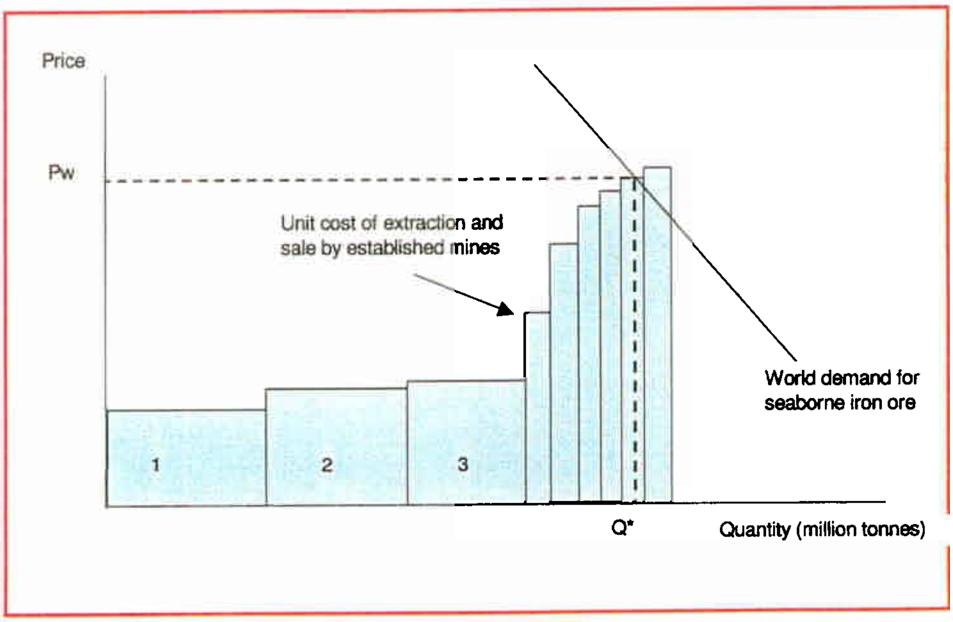
92 As noted in section 4, we assume that FMG commences operations from its Christmas Creek/Mt Nicholas mines irrespective of whether the Service is declared. The conclusion that the commencement of production at Mindy Mindy will not change the structure of the world market is not altered even if we assume that FMG is not already producing iron ore from its Christmas Creek/Mt Nicholas mines.

6.2.2 The global iron ore market is a competitive international commodity market

93 As discussed above, the international price for iron ore is driven by world demand and supply conditions. Even if access facilitates Mindy Mindy commencing production it will not change the process of competition in this market.

94 Stylised short run supply and demand curves for seaborne iron ore are presented in Figure 3.

Figure 3: Price setting in the international market for iron ore: supply and demand



95 The three large suppliers with low unit costs (shown as 1, 2, and 3 in the diagram) could be interpreted as representing production from the mines owned by Rio Tinto, CVRD, and BHP Billiton.

96 The smaller suppliers with higher unit costs are represented by the bars to the right of the supply stack. As is evident from Table 4, the number of mines to the

right of the supply stack supplying a small proportion of the total is greater than depicted in Figure 3.

97 All producers in this market face the same price for ore of the same quality. The world price (Pw) that determines the price that all mines receive reflects the costs of the marginal supplier. The marginal supplier is the highest cost mine that supplies into the long-term contract market. This is represented by the point at which the demand curve intersects the supply curve (at which point Q* is the quantity supplied). This is a textbook description of a competitive market in which producers have different costs of supply.

98 Figure 3 is a simplified picture of the price setting process. As discussed in section 6.1.1, the price for approximately 90 per cent of seaborne iron ore is determined in annual negotiations between large producers and suppliers. The process by which the annual benchmark price is set is consistent with the competitive outcome illustrated above. The benchmark price reflects the relevant supplier's and bidder's expectation of the price at which the supply of ore sold under long-term contracts will meet demand. The price of iron ore sold through spot trades reflects the cost of supply and the extent to which the long-term contract market correctly anticipated the price at which supply would meet demand.

99 The international iron ore market is a competitive international commodity market. The process by which firms compete and the world price is set will not be affected by the entry of Mindy Mindy.

100 It is possible that if Mindy Mindy enters it may affect which firm is the marginal supplier in the market and, if certain conditions hold, this could result in a small change in the world price. However this is not the same as an effect on competition. A host of factors influence the world price at any point in time that have no effect on competition in the market. The international iron ore market will continue to be a competitive international commodity market, irrespective of whether Mindy Mindy enters or not.

101 In summary, entry by Mindy Mindy will not promote competition in the world market for iron ore because it will not affect the structure of the market, the process of competition, the structure of producers' costs, or the manner in which prices are set.

7 Haulage services

102 FMG has argued that there is a market for the haulage of iron ore and other minerals from various mine sites in the Pilbara region (haulage services). Frontier considers that:

- the evidence from the Pilbara suggests it may be appropriate to regard these activities as being part of the international iron ore market; and
- even if a market for haulage services is deemed to exist, there is no identifiable party seeking to provide haulage services to third parties. As a result access will not promote competition in the rail haulage in the Pilbara except in a trivial or notional way.

7.1 MARKET DEFINITION

7.1.1 Haulage services are part of the global iron ore market

103 As discussed in section 5.3, the evidence from the Pilbara suggests that it may be efficient for the activities of mining, transporting and marketing of iron ore to be undertaken in vertically integrated firms. FMG's desire to obtain access to the Service rather than contracting with BHP Billiton for the haulage of ore from Mindy Mindy indicates there is an efficiency gain from coordinating, at a minimum, the activities of haulage, mining, and marketing within the same firm.

104 The argument that iron ore haulage services in the Pilbara is not a separate market is reinforced by the fact that there is no real prospect of haulage services being bought and sold in the Pilbara. Notwithstanding the obligations on BHP Billiton under the State Agreement and Rail Transport Agreement to provide haulage services, it is not clear that any party is seeking to purchase such services. That is, there are no actual transactions and it is not clear that there is any potential for transactions.

- FMG is seeking access to the Service in order to use FMG's own rolling stock to transport its own iron ore products.[23]
- There is no immediate prospect of the applicant competing to provide haulage services to third parties using this service. Nothing in the Application for Declaration suggests that access will result in a market for haulage services, or that FMG would be seeking to participate in such a market.
- Incumbent iron ore producers in the Pilbara and new entrants are demonstrating a preference to provide their own haulage services, suggesting that there may be little demand for haulage services provided by third parties.

105 The lack of any real prospect of transactions suggests the haulage of iron ore in the Pilbara is an activity that is undertaken as part of the international iron ore market.

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23 FMG Application for Declaration, p 4

7.1.2 Evidence from other regions is not pertinent

106 In other regions in Australia miners contract with third parties for haulage services. One example is the haulage of coal from the Hunter Valley to Port Waratah on track operated by the Australian Rail Track Corporation using haulage services provided by Pacific National [24]

107 This does not demonstrate that it will be an efficient approach for iron ore producers in the Pilbara.

108 The market structure in the Hunter Valley has not emerged because it is an efficient structure, but rather as a result of policy intervention. The NSW State Government was responsible for the early development of mines and transport infrastructure in NSW. The pattern of infrastructure development must be considered in the context of historic policy objectives.

109 Capacity constraints in the coal transport chain provide some evidence of the inefficiencies that can be associated with the separate contracting for railway, haulage and port handling services. Significant problems have emerged in the coordination of coal production and transport via the common user rail and port facilities. Coal producers have expressed concerns, which seem supported by the evidence, that a lack of investment in rail track, haulage, and port facilities risks constraining the quantity of coal that can be exported and imposing significant costs on producers. [25]

110 Similar problems have emerged in Queensland where coal transport infrastructure capacity constraints that lead to inefficiencies have been identified in the track, rolling stock and at the Dalrymple Bay Coal Terminal.

111 Significant sunk costs are incurred to develop dedicated rail infrastructure. In relatively densely populated places such as the Hunter Valley, geographic and demographic characteristics may make it prohibitively costly even if there are significant inefficiencies associated with the vertical separation of mining, haulage and rail track services. In the Pilbara the structure that is emerging suggests that the efficiency gains of vertical integration may exceed the increase in costs associated with establishing dedicated rail facilities.

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24 The railway line is owned by the Rail Infrastructure Corporation (RIC), a NSW State owned corporation and leased to the Commonwealth company Australian Rail Track Corporation (ARTC) which is responsible for managing, operating and investing in the track for the 60 year term of the lease. Pacific National is the principal provider of coal haulage services in NSW delivering approximately 93 percent of the coal for export to the relevant port facilities. The NSW Rail Access Regime provides for any rail operator to provide haulage services after entering into an Access Agreement with the RIC. Port Waratah Coal Services (PWCS) owns and operates the Carrington and Kooragang Island coal loading terminals at the Port of Newcastle. These are common user facilities. PCWS is owned by a number of coal producers and other participants in the Hunter Valley coal industry

25 See for example, ACCC Determination: Application for Authorisation lodged by Port Waratah Coal Service Ltd in respect of a Medium Term Capacity Distribution System to address the imbalance between coal loading services at the Port of Newcastle and the capacity of the Hunter Valley coal chain, 15 April 2005

7.2 WILL ACCESS PROMOTE COMETTION IN A MARKET FOR HAULAGE SERVICES?

112 As noted above, we consider the evidence suggests the haulage of iron ore is an activity that is part of the international iron ore market. Access will not promote competition in the international iron ore market for the reasons outlined in section 6.2.

113 If the transaction costs are such that a vertically integrated structure is more efficient, access will not promote competition in the provision of haulage services. That is, the absence of actual or potential transactions is a key reason why we consider that haulage services are provided in the international iron ore market and a key reason why we conclude access will not promote competition in the provision of haulage services.

114 In order for competition to be promoted there must be some tangible prospect of suppliers competing to provide haulage services to customers. At present haulage services on each railway line in the Pilbara region are provided by the party that owns and operates the relevant railway line. Nothing in the Application for Declaration suggests that access will result in a market for haulage services, or that FMG would be seeking to participate in such a market by competing to supply haulage services to third parties. If FMG and other iron ore producers in the Pilbara also prefer to supply their own haulage services rather than purchasing from another party there is no real prospect of competition for haulage services emerging.

8 Iron ore tenements

115 FMG is arguing that there is a market for iron ore tenements in the Pilbara which it describes as including the activities of prospecting for resources, initial exploration of potential resources, and the development of tenements to a level at which they have a proven or bankable value.[26]

8.1 MARKET DEFINITION

116 Iron ore tenements should only be described as a separate functional market if the activities involved in prospecting, initial exploration and development are undertaken by different firms from those that subsequently mine and market iron ore.

117 If rights to iron ore tenements are bought and sold this is not of itself reason to conclude that there is a distinct market for iron ore tenements. If both the buyers and sellers of rights to the tenements are engaged in the same range of activities (prospecting for, mining, and marketing iron ore) these activities should be regarded as occurring within the same market. This point is clear if we consider, as an example, that the assets for sale are iron ore mines rather than rights to tenements. The fact that mines are periodically bought and sold by mining companies does not suggest that the buyers and sellers are operating in different markets.

118 If discrete components of the work involved in prospecting and initial exploration are contracted out but the project as a whole is typically managed by firms that subsequently mine and market the mineral ore it is also unlikely that iron ore tenements should be defined as a market that is distinct from the subsequent mining and marketing.

119 To demonstrate that there is a distinct dependent market for iron ore tenements in the Pilbara, FMG would need to show that:

- there are firms engaged in buying and selling iron ore tenements that are not also mining iron ore and have no intention to mine iron ore in the future. If firms that trade iron ore tenements also mine, or hope to mine if viable deposits are found, the activities associated with prospecting and initial exploration and development of iron ore resources should be defined to be part of the international iron ore market;
- firms that are engaged in these activities (prospecting, undertaking initial exploration and development, and trading in rights to iron ore tenements but not mining or intending to mine) only operate in the Pilbara. If firms that trade rights to iron ore tenements in the Pilbara are also active in a range of locations around the world, the market should be defined in broader geographic terms; and

[26] FMG Supplementary Submission, p4

- firms that are engaged in these activities (prospecting, undertaking initial exploration and development, and trading in rights to iron ore tenements but not mining or intending to mine) do not also trade in rights to tenements for other mineral ores. If the firms are also engaged in these activities in relation to other mineral ores the market should be defined more broadly to include those mineral ores.

120 A number of firms own rights to tenements in the Pilbara. To the best of our knowledge, those firms that are involved in prospecting, and initial exploration and development of iron ore resources also intend to mine the resources if viable deposits are found. FMG would need to provide evidence to the contrary to argue that there is a distinct dependent market for iron ore tenements in the Pilbara.

8.2 WILL ACCESS PROMOTE COMPETITION IN A MARKET FOR IRON ORE TENEMENTS?

121 FMG is asserting that the provider of the Service has monopsony power in the acquisition of iron ore tenements because it controls the infrastructure required to transport ore to port. If BHP Billiton had monopsony buying power, the price paid for iron ore tenements will be lower than would prevail in a more competitive market.

122 It is difficult to conclude that BHP Billiton has monopsony power at present in a market for iron ore tenements in the Pilbara or even in a narrower geographic area, given the proximity of:

- the Robe and Hamersely rail systems from West Angelas and Yandicoogina;
- the proposed FMG railway line from its Christmas Creek/Mt Nicholas mines; and
- the possibility that in addition there may be a further railway line from Hope Downs to port facilities at Port Hedland.

123 The rail infrastructure that exists, and which is going to be constructed, in close proximity to the Mt Newman line means that, irrespective of whether the Service is declared, there will be number of potential purchasers of iron ore tenements that could be expected to compete aggressively for the rights to attractive tenements. In addition to the firms that own or intend to construct dedicated rail and port facilities a number of other parties have recently publicly expressed their interest in acquiring rights to iron ore tenements in the Pilbara, or establishing long-term relationships with Australian iron ore producers. These include, amongst others, Baosteel, China's largest steel maker[27] and Cleveland-Cliffs.[28]

124 Indeed, if there is a distinct market for iron ore tenements in the Pilbara we would expect that it would be most competitive in the region surrounding the Mt Newman railway line.

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[27] See for example, "BlueScope chases China", The Australian, 15 December 2005

[28] See for example, "US miner poised for $600m Portman bid", The Australian, 12 January 2005

9 Conclusions

125 After considering the application of criterion (a) to FMG's Application for Declaration we conclude that access will not promote competition in a market other than then market for the Service

126 Some of the dependent markets pleaded by FMG make little sense in the context of considering an application for declaration under Part IIIA. Other mineral ores and other products cannot be meaningfully described as dependent markets. Furthermore, the activities of iron ore production and marketing must be considered to be part of the same market. Consequently, we have focused on considering the dependent markets that might conceivably be defined as markets for the purpose of assessing the Application for Declaration: iron ore production and marketing, haulage services, and iron ore tenements.

127 FMG failed to define the market in which the Service is provided or to demonstrate that the dependent markets are markets other than the market for the Service. The evidence suggests that it may be efficient for the activities of prospecting, mining, transporting and marketing iron ore from the Pilbara to be undertaken within vertically integrated firms. In this case, these activities should be defined as being in the same market and FMG's Application for Declaration must be declined.

128 Even if the NCC determines that there are distinct dependent markets, Frontier considers that access is unlikely to promote competition in any of the relevant markets.

129 Competition will not be promoted in the world market for iron ore production and marketing because entry by Mindy Mindy will not affect the structure of the market, the process by which prices are set and competition occurs, or the structure of costs.

130 Nor will it be promoted in a market for haulage services in the Pilbara given that there is little prospect of transactions occurring. Nothing in the Application for Declaration suggests that FMG or any other party intends to compete to supply haulage services to third parties as a result of obtaining access to the Service, and FMG and other iron ore producers in the Pilbara are demonstrating a preference for supplying their own haulage services rather than purchasing from another party.

131 There are a number of potential purchasers of iron ore tenements in the Pilbara, and indeed in the region of the Mt Newman railway line, that have rail and port facilities. In addition a number of other parties have stated they are interested in acquiring stakes in high quality iron ore tenements in the Pilbara. It is difficult to argue that BHP Billion has monopsony power in such a market at present, or that this market will be affected by access to the Service.

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