

## **Determination**

### **Decision No.741**

Seagate Technologies PLC  
and  
Samsung Electronics Co Limited

**The Commission:** Dr Mark Berry  
Pat Duignan  
Dr Stephen Gale

**Summary of application:** The acquisition by Seagate Technologies PLC of certain assets of the hard disk drive business of Samsung Electronics Co. Limited.

**Determination:** Pursuant to section 66(3)(a) of the Commerce Act 1986, the Commission determines to give clearance for Seagate Technologies PLC to acquire certain assets of the hard disk drive business of Samsung Electronics Co. Limited.

**Date of determination:** 15 December 2011

Confidential material in this report has been removed. Its location in the document is denoted by [ ].

## The proposal

1. A notice under section 66(1) of the Commerce Act 1986 (the Act) was registered on 7 July 2011. The Notice sought clearance for Seagate Technology Plc (Seagate or the Applicant) to acquire certain assets<sup>1</sup> of the hard disk drive business of Samsung Electronics Co. Limited (Samsung).
2. Clearance is sought in accordance with section 4(3) of the Act, which extends the application of section 47 to business acquisitions outside New Zealand, to the extent that the acquisition affects a market in New Zealand.

## The decision

3. The Commission considers that the markets relevant to its consideration of this application are the manufacture and importation into New Zealand of:
  - 3.1 3.5" Desktop Hard Disk Drives (HDDs).
  - 3.2 3.5" Consumer Electronics (CE) HDDs.
  - 3.3 2.5" Mobile HDDs.
  - 3.4 2.5" Consumer Electronics HDDs.
  - 3.5 External HDDs (including 2.5" and 3.5").
4. In the 2.5" HDD markets the Commission considers that Seagate would continue to be constrained by Western Digital in the factual. Also, the potential for Toshiba, a large international player, to expand further into New Zealand provides an additional constraint.
5. In the 3.5" HDD markets the Commission considers that Seagate would continue to be constrained by Western Digital in the factual. Also, the potential for the acquirer of Western Digital's divested 3.5" production assets to expand into New Zealand provides further constraint.
6. The Commission is satisfied that the proposed acquisition will not have, or would not be likely to have, the effect of substantially lessening competition in any of the relevant markets.

## Procedure

7. Section 66(3) of the Act requires the Commission to either clear or decline to clear the acquisition referred to in a section 66(1) notice within 10 working days, unless the Commission and the person who gave notice agree to a longer period. An extension of time was agreed between the Commission and Seagate. Accordingly, a decision on the application was required by 16 December 2011.<sup>2</sup>
8. The Commission's approach to analysing the proposed acquisition is based on principles set out in the Commission's Mergers and Acquisitions Guidelines.<sup>3</sup>

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<sup>1</sup> A substantial detailed list of the relevant assets was provided with the Application.

<sup>2</sup> Given this transaction related to markets internationally, the Commission chose to delay its decision while investigations proceeded overseas.

<sup>3</sup> Commerce Commission *Mergers and Acquisitions Guidelines* (2004).

## Analytical framework

9. The Commission uses an analytical framework for assessing a substantial lessening of competition in the context of an acquisition. An important tool in this assessment is the determination of the relevant market or markets. To do this, the Commission identifies the areas of overlap between the acquirer and the target, and then considers what, if any, products and geographic regions, constitute relevant close substitutes from both a customer's and a supplier's point of view.
10. The Commission uses a forward-looking type of analysis to assess whether a substantial lessening of competition is likely, so an important subsequent step is to establish the appropriate hypothetical future with and without scenarios, defined as the situations expected:
  - 10.1 With the acquisition in question (the factual).
  - 10.2 Without the acquisition (the counterfactual).
11. In framing a suitable counterfactual, the Commission bases its view on a pragmatic and commercial assessment of what is likely to occur in the absence of the proposed acquisition.<sup>4</sup>
12. The High Court<sup>5</sup> has noted that:
 

Because "likely" means something less than "more likely than not", there may be more than one "likely" counterfactual.... We consider that where there is more than one real and substantial counterfactual it is not a case of choosing the one that we think has greater prospects of occurring....We are to discard those possibilities that have only remote prospects of occurring. We are to consider each of the possibilities that are real and substantial possibilities. Each of these real and substantial possibilities become counterfactuals against which the factual is to be assessed.
13. The Court further noted that:<sup>6</sup>

If in the factual, as compared with any of the relevant counterfactuals competition is substantially lessened then the acquisition has a "likely" effect of substantially lessening competition in a market.
14. Accordingly where there is more than one potential counterfactual, the Commission assesses the possibilities, discards those that have only remote prospects of occurring, and considers each of the real and substantial possibilities as counterfactuals against which the factual is to be assessed.
15. A comparison of the extent of competition in the relevant markets in the factual and counterfactual scenarios enables the Commission to assess the probable extent of the lessening of competition under the proposed acquisition, and whether that contemplated lessening is likely to be substantial.

## Key parties

### Seagate

16. Seagate is an international company active worldwide in the design and manufacture of hard disk drives (HDDs).<sup>7</sup> Seagate has manufacturing plants in the Netherlands,

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<sup>4</sup> *New Zealand Electricity Market* (Commerce Commission Decision 277, 1996), at p 16.

<sup>5</sup> *Woolworths & Ors v Commerce Commission* (2008) 8 NZBLC 102,128 at 116, 118 and 122.

<sup>6</sup> *Ibid* at 122. This view was not challenged by the Court of Appeal.

Malaysia, China, Thailand and Northern Ireland. Its holding companies are based in the Cayman Islands and in Ireland. Its annual international sales in 2010 were about US\$[ ], a US\$[ ] drop on the previous year.

17. Seagate does not have a presence in New Zealand; rather its products are sold through importers/distributors, Datastor (NZ) Limited (Datastor) and Ingram Micro (N.Z.) Limited (Ingram Micro). Its New Zealand sales of HDDs were approximately NZ\$[ ] in 2010.

### **Samsung**

18. Samsung is an international company active worldwide in semiconductor, telecommunication, digital media and digital convergence technologies. The Storage Systems Division is part of Samsung's semiconductor business. It designs, manufactures and sells HDDs, and solid state drives (SSDs)<sup>8</sup>. Samsung has HDD manufacturing facilities in South Korea and China, and research & development facilities in San Jose, California. Samsung also manufactures HDDs for use in its own electronic devices. Its annual international sales in 2010 were about US\$[ ].
19. Samsung does not have a presence in New Zealand in relation to HDDs<sup>9</sup>; rather its products are sold through an importer/distributor, Altech Computers Corporation (NZ) Pty Limited (Altech). Its New Zealand sales of HDDs were approximately NZ\$[ ] in 2010.

### **Other parties**

#### **Global competitors**

##### *Western Digital Ireland Limited (Western Digital)*

20. Western Digital is an international company that designs, develops, manufactures and sells HDDs, SSDs and media players. Western Digital has manufacturing plants in the United States, Malaysia, Singapore, and Thailand. Its annual international sales in 2010 were about US\$[ ].
21. Western Digital does not have a presence in New Zealand; rather its products are sold through importers/distributors Synnex New Zealand Limited (Synnex), VST (NZ) Ltd and Ingram Micro. Its New Zealand sales of HDDs were approximately NZ\$[ ] million in 2010.

##### *Viviti Technologies Limited (Hitachi)*

22. Viviti Technologies Limited (formerly known as Hitachi Global Storage Technologies Holdings Limited) is a wholly owned subsidiary of Hitachi Limited, a multinational corporation with activities in a wide range of industries including electronic devices,

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<sup>7</sup> Seagate also manufactures hybrid hard disk drives (H-HDDs). H-HDDs are an emerging technology that combines elements of SSDs and HDDs.

<sup>8</sup> SSDs are data storage devices that use flash-based, solid state memory to store data. SSDs use micro chips to retain data in non-volatile memory chips and contain no moving parts.

<sup>9</sup> Samsung Electronics Australia Pty Ltd (Samsung Australia) a wholly owned subsidiary of Samsung is registered with the New Zealand Companies Offices as an Overseas ASIC company. Samsung Australia's business in New Zealand conducts sales and marketing operations in relation to finished product goods (televisions, cell phones, white goods, printers and cameras). It does not engage in HDD activity of any kind.

power and industrial systems, and information and telecommunications systems. Hitachi is an international company that designs, develops, manufactures and sells HDDs and SSDs. Hitachi has manufacturing plants in the US and Asia; its headquarters are based in Singapore. Its annual international sales of HDDs in 2010 were about US\$[ ]].

23. Hitachi does not have a presence in New Zealand; rather its products are sold through importers/distributors Altech and Avnet (NZ) Pty Ltd. Its New Zealand sales of HDDs were approximately NZ\$[ ] in 2010.

#### *Toshiba*

24. Toshiba forms part of Toshiba Americas Information Services which is owned by Toshiba America Inc, a subsidiary of Toshiba Corporation. Toshiba is an international company that designs, develops, manufactures and sells HDDs, SSDs, NAND flash memories and optical disk drives. Toshiba has manufacturing plants in Japan, China, the United States, Europe, Thailand and the Philippines. Its annual international HDD sales in 2010 year were about US\$ [ ]].
25. Toshiba does not have a presence in New Zealand in relation to HDDs; rather its products are sold through importer/distributor Ingram Micro and retailers Noel Leeming Group Limited and Warehouse Stationary Limited. Its New Zealand sales of HDDs were approximately NZ\$[ ] in 2010.

#### **Global original equipment manufacturers**

26. Globally there are several large original equipment manufacturers (OEMs) that purchase HDDs for use in desktop and notebook computers, servers and home entertainment equipment. Among the largest OEMs are:
- 26.1 Hewlett Packard.
  - 26.2 Acer.
  - 26.3 Dell.
  - 26.4 Lenovo.
  - 26.5 Toshiba.

#### **New Zealand distributors**

27. New Zealand has several distributors of wholesale computer parts including HDDs. These distributors on sell HDDs to New Zealand OEMs and retailers. The Commission interviewed the following distributors:
- 27.1 Ingram Micro.
  - 27.2 Datastor.
  - 27.3 Altech.
  - 27.4 Synnex.

#### **New Zealand OEMs/retailers**

28. New Zealand has several OEMs that assemble specialist desktop computers and servers. These OEMs purchase HDDs from New Zealand distributors/importers rather

than directly from HDD manufacturers. The Commission interviewed the following OEMs:

- 28.1 PB Technologies Limited (PB Technologies).
  - 28.2 Arche Technologies (NZ) Limited.
  - 28.3 Playtech Limited.
  - 28.4 Silicon Systems Limited.
  - 28.5 Cyclone Computer Company Limited (Cyclone).
  - 28.6 JDI Limited.
29. New Zealand has a large number of HDD retailers. They range from large retail chains such as Noel Leeming, Dick Smith and Harvey Norman to online retailers and small computer stores.

### **Industry background**

30. HDDs are data storage systems that store digitally encoded data on rapidly rotating disks with magnetic surfaces. The information is written and read by read/write heads positioned over the disks. Every HDD contains one or more disks with a corresponding number of heads per disk and in some cases two heads per disk (one for each side).
31. HDDs are used for electronic data storage in a wide range of electronic devices including internal storage in laptop and desktop computers, data storage units for individual business enterprises, television set top boxes (such as “My Sky HD” and “Freeview HD”) external additional storage for computers, and digital video recorders.
32. HDDs are generally grouped into the following end-use categories:
- 32.1 Desktop Computing: computers for fixed use, normally at a desk or other workstation.
  - 32.2 Notebook: personal computers designed for mobile use.
  - 32.3 Consumer Electronics: devices such as digital video recorders, set top boxes and game consoles.
  - 32.4 Enterprise: servers, network attached storage, computer subsystems and network communications for businesses.
33. Alternatively, HDDs can be external devices (rather than located internally in a device) that provide additional capacity for devices such as desktops or notebooks.
34. HDDs are sold through three distribution channels: OEMs, independent distributors and retailers. The largest OEM purchasers of HDDs include PC manufacturers like Hewlett Packard, Dell, Acer, Lenovo and Asustek as well as enterprise storage suppliers such as EMC and NetApp. Independent distributors resell HDDs either to retailers or directly to end users. Some large retailers purchase HDDs directly from the manufacturer.

### **Market definition**

35. The Commission considers the relevant markets for the assessment of this application are the manufacture and the supply into New Zealand of:

- 35.1 3.5" Desktop HDDs.
  - 35.2 3.5" Consumer Electronics HDDs.
  - 35.3 2.5" Mobile HDDs.
  - 35.4 2.5" Consumer Electronics HDDs.
  - 35.5 External HDDs (including 2.5" and 3.5").
36. Enterprise HDD markets are not relevant to this application as there is no aggregation in New Zealand.
37. The Act defines a market as:<sup>10</sup>
- a market in New Zealand for goods or services as well as other goods or services that, as a matter of fact and commercial common sense, are substitutable for them.
38. For the purpose of competition analysis, the internationally accepted approach is to assume the relevant market is the smallest space within which a hypothetical, profit maximising, sole supplier of a good or service, not constrained by the threat of entry could impose at least a small yet significant and non-transitory increase in price, assuming all other terms of sale remain constant (the SSNIP test). The smallest space in which such market power may be exercised is defined in terms of the dimensions of the market discussed below.
39. The Applicant submitted its view on the relevant market as follows:
- The parties submit that the market for HDDs is worldwide, given the global nature of manufacturing and distribution of HDDs, and is a single product market, given the demand-side and supply-side substitutability of HDDs.<sup>11</sup>
40. These views on the product and geographic dimension of the market are discussed further below.

*Relevant overseas decisions*

41. The European Commission (EC) decisions on 23 November 2011 about the Western Digital/Hitachi acquisition, and 19 October 2011 about the Seagate/Samsung acquisition, found that the relevant HDD product markets are global markets for:
- 41.1 Mission Critical Enterprise HDDs.
  - 41.2 3.5" Business Critical HDDs.
  - 41.3 3.5" Desktop HDDs.
  - 41.4 3.5" Consumer Electronics HDDs.
  - 41.5 2.5" Mobile HDDs.
  - 41.6 2.5" Consumer Electronics HDDs.
42. The EC also found a downstream external HDD market that it considered was regional (European-wide) in nature.

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<sup>10</sup> Section 3(1A) of the Act.

<sup>11</sup> Seagate Application for Clearance 4 July 2011, at 12.25.



*HDDs have various technical characteristics*

43. Mission critical enterprise HDDs<sup>12</sup> are used for electronic data storage systems for business enterprises. Compared to the other applications described above, enterprise HDD end-users generally require greater capacity, speed and reliability. Enterprise electronic data storage HDDs are more sophisticated and complex than other HDDs. They require features such as 100% built in redundancy and automatic security back up. Normally an enterprise HDD will be located in its own air conditioned room or cabinet rather than as part of the internals of a computer. Enterprise electronic data storage systems are thus differentiated from other HDDs by their technical characteristics.
44. Business critical enterprise HDDs are similar to mission critical enterprise HDDs in that they are high-end reliable data storage devices used by business enterprises. However, they are not as sophisticated and complex as mission critical enterprise HDDs.
45. Samsung does not supply mission critical enterprise systems.<sup>13</sup> Samsung manufactures some business critical enterprise systems<sup>14</sup>, but the Commission understands that it does not supply any of these into New Zealand. Therefore, the proposed acquisition will not lead to any significant aggregation in the supply of enterprise HDDs and, as such, the Commission has not considered the market for enterprise HDDs in detail.
46. HDDs (other than enterprise HDDs) are generally differentiated by four main technical characteristics:
  - 46.1 Form factor: the physical size of the HDD, generally 2.5" and 3.5" diameter.
  - 46.2 Rotational speeds: The speed at which the HDD's platter of discs rotates determines the speed of access to the stored data.
  - 46.3 Interfaces: The interface allows the data on the HDD to be accessed by interoperable devices.
  - 46.4 Capacity: The amount of data that can be stored on the device.
47. The technical characteristics for a specific HDD will ultimately be determined by its end-use requirements. The industry tends to categorise HDDs by their end use, such as desktops, notebooks or consumer electronics. Different end-uses require different technical characteristics as shown in Table 1.

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<sup>12</sup> Enterprise HDDs in this instance are equivalent to the market the EC defined as Mission Critical Enterprise HDDs.

<sup>13</sup> Appendix J, "All Enterprise" does not list Samsung as an enterprise manufacturer. This information is sourced from International Data Corporation (IDC) data.

<sup>14</sup> [ ]

**Table 1: Required HDD characteristics for various end -uses**

| End-use  | Desktop        | Notebook        | Consumer electronics  |
|--|----------------|-----------------|-----------------------|
| Form factor (size)                                     | 2.5" / 3.5"    | 2.5"            | 2.5" / 3.5"           |
| Rotational speed (thousands of revolutions per minute) | 7.2 / 5.4      | 7.2 / 5.4 / 4.2 | 7.2 / 5.4 / 4.2 / 3.6 |
| Interfaces   | PATA / SATA    | PATA / SATA     | PATA / SATA           |
| Capacity   | 500-750GB/disk | 220-500GB/disk  | 220-750GB/disk        |

Source: Applicant

48. From a customer's perspective, 2.5" and 3.5" HDDs appear to be in different product markets. For certain end-uses there is limited demand-side substitutability in terms of an HDD's form factor. For example, 2.5" HDDs are usually used for notebooks as 3.5" HDDs cannot generally be used due to their larger physical dimensions. While 2.5" HDDs can be used for desktops, we understand that [ ]<sup>15</sup> Moreover, the number and identity of HDD manufacturers differs between 2.5" and 3.5" HDDs. This is explored further in the competition analysis below.
49. We consider that the product markets are usefully broken down further by end-use<sup>16</sup> as it is apparent that different end-uses require different characteristics. For instance, we understand that notebook HDDs need to be more durable and shock resistant compared to desktop HDDs. Consumer electronic HDDs are generally technically more advanced as they require, for instance, more silent operation, need to operate in a higher temperature environment and operate for longer periods of time. Desktop HDDs on the other hand, are often required to have higher capacity due to larger storage needs.
50. External HDDs, as opposed to the internal HDDs in the above devices, are a further different end-use. The EC defined external HDDs as a separate downstream market from HDDs as they are manufactured to be sold direct to consumers, rather than as an input into another product (eg a notebook).
51. We also consider that external HDDs are a separate market. We have not reached a firm view as to whether 2.5" and 3.5" external HDDs are in the same market as we recognise there is demand-side substitutability between these particular products. However, for our competition analysis below we have disaggregated external HDDs into our 2.5" and 3.5" HDDs analysis as we have industry data available to us to this particular level.
52. While we consider these different end-uses do constitute discrete product markets, for assessing this clearance application we can consider many of these markets together as the number and identity of competitors are the same across a number of these markets. This is explored further in the competition assessment below.

<sup>15</sup> [ ]

<sup>16</sup> Such as was done in the EC with business critical, desktop, consumer electronics and mobile markets.

*HDDs differ from other storage options*

- 53. The Commission considers that the extent of substitutability between HDDs, solid state drives (SSDs) and “cloud” computing<sup>17</sup> is not sufficient for them to be considered in the same product market. Nevertheless, other storage options are likely to provide some smaller degree of constraint on HDDs.
- 54. The Applicant submitted that the combined entity would also face significant constraint from new forms of storage technology such as SSDs and cloud computing. The Applicant further submitted that the average sales price for HDDs has dropped by more than [ ]% in the last ten years.
- 55. All of the distributors interviewed by the Commission advised that the HDD market is a “dying” market. SSDs are a faster, more compact and power efficient form of digital storage. Distributors expect that prices will continue to converge and SSDs will eventually replace HDDs for most applications.
- 56. Nevertheless, SSDs are still significantly more expensive than HDDs for a given storage capacity. The price of SSDs is currently about 20 times higher than the price of HDDs. [ ]<sup>18</sup>
- 57. Cloud computing is becoming an increasingly realistic option for data storage for international applications. However, the success of cloud computing is dependent on high internet speeds and high data capacity so it is unlikely that it will provide a strong constraint in New Zealand in the near future.
- 58. Over time, as New Zealand’s internet speeds increase, cloud computing may become a closer substitute for HDDs. However, this may be some time away. [ ]<sup>19</sup>

*Limited supply-side substitutability*

- 59. The Commission considers that there is likely to be limited supply-side substitutability across form factors.
- 60. The Applicant submitted that HDD manufacturers are able to readily switch production between different types of drives.
- 61. [ ]
- 62. However, it appears that it is significantly more troublesome for a supplier to switch between form factors. It would take between one to two years and a significant amount of investment for a manufacturer to switch from, say, 3.5” to 2.5” form factor. [ ]

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<sup>17</sup> Cloud computing refers to computing resources, such as data, applications and processing power, being situated offsite, such as in vast “server farms”, and accessed via computer networks, such as the internet or private networks, rather than being stored or located on a local device.

<sup>18</sup> [ ]

<sup>19</sup> [ ]

*HDDs are not manufactured in New Zealand*

63. The Commission considers that the relevant markets in this instance are national in scope.
64. The Applicant has submitted that competition between HDD producers takes place on a global level. HDDs are centrally produced, of high value, and easily transportable. Under the Act, the Commission must give consideration to the effect on a market in New Zealand.
65. HDDs are manufactured in various overseas<sup>20</sup> locations and are imported for wholesale supply in New Zealand.
66. In New Zealand, HDDs are primarily supplied to distributors who resell the drives to:
- 66.1 OEMs who assemble desktop computers and servers.
  - 66.2 Computer upgrade and repair service providers.
  - 66.3 Retailers of external hard drives that range from large chains such as Harvey Norman, Dick Smith and Noel Leeming, to online retailers and small computer stores.

**Factual/counterfactual****Relevant decisions in other jurisdictions**

67. On 19 October 2011 the EC unconditionally approved the acquisition of Samsung's HDD business by Seagate.
68. On 8 December 2011 the United States Federal Trade Commission decided not to pursue its investigation into the acquisition of Samsung's HDD business by Seagate.

**Related transaction**

69. Western Digital announced on 7 March 2011 that it had entered into a Sale and Purchase Agreement to acquire the HDD business of Hitachi. While the Commission has not received an application for clearance in respect of this acquisition, it is relevant because both Western Digital and Hitachi are major manufacturers and wholesale suppliers of HDDs.
70. Western Digital notified its proposed acquisition of Hitachi to the EC on 20 April 2011, one day later than notification of the Seagate/Samsung transaction. Under a priority rule based on the date of notification, the EC assessed the Seagate/Samsung transaction based on the market existing before the notification of the Western Digital/Hitachi transaction. The Western Digital/Hitachi transaction was then assessed taking into account the Seagate/Samsung transaction.
71. On 23 November 2011 the EC gave conditional approval to Western Digital to acquire Hitachi. It found the proposed concentration would result in competition concerns in the following markets:
- 71.1 The worldwide 3.5" Desktop market.

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<sup>20</sup> Under section 4(3) of the Act, section 47 extends to the acquisition outside New Zealand by a person (whether or not the person is resident or carries on business in New Zealand) of the assets of a business to the extent that the acquisition affects a market in New Zealand.

- 71.2 The worldwide 3.5" CE market.
- 71.3 The worldwide 3.5" Business critical market.
72. The EC's approval is conditional upon the divestment of a large 3.5" manufacturing plant and related measures.<sup>21</sup> Western Digital cannot complete the acquisition until it finds a suitable purchaser that is approved by the EC. [ ]
73. Based on the decisions in other jurisdictions, the Commission considers that it is likely that the proposed Western Digital/Hitachi acquisition will proceed once a suitable purchaser for the divestments has been found.
74. In this respect, the Commission will take the proposed Western Digital/Hitachi acquisition including the divestment into consideration when assessing the relevant factual and counterfactual scenarios of the proposed Seagate/Samsung acquisition.

#### **Factual**

75. In light of the above factors, the Commission considers that the most likely factual scenario is that Seagate acquires Samsung and contemporaneously Western Digital acquires Hitachi and divests significant production assets for 3.5" HDDs.

#### **Counterfactual**

76. The Commission considers that the most likely counterfactual is that Seagate does not acquire Samsung and Western Digital does acquire Hitachi and divests significant production assets for 3.5" HDDs.

#### **Competition analysis 2.5" HDD markets**

77. The Commission considers that Seagate would continue to be constrained by Western Digital in the factual. The potential for Toshiba, a large international player, to expand further into New Zealand provides an additional constraint.
78. While the Commission has identified separate mobile and consumer electronic 2.5" HDD, we have assessed these and the 2.5" proportion of the external HDD markets together in this section, as the same competition issues apply to both of these markets in New Zealand.
79. The Applicant submitted that it would continue to face constraint, post-acquisition, in the 2.5" HDD market from:
- 79.1 Existing global competitors Western Digital and Toshiba.
- 79.2 The countervailing power of large global original equipment manufacturers (OEMs).

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<sup>21</sup> [ ]

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- 79.3 Other forms of electronic data storage such as SSDs and Cloud computing.
80. Having considered the competition effects of the proposed acquisition, the Commission is satisfied that the proposed acquisition will not have, or would not be likely to have, the effect of substantially lessening competition in the 2.5" HDD market.
81. The lessening of competition is unlikely to be substantial in New Zealand as Samsung and Hitachi currently provide limited competitive constraint and because the combined entities would continue to constrain each other.
82. Globally, Samsung is perceived as a second tier minor player compared to Western Digital, Hitachi and Toshiba. Samsung is not currently seen as a strong competitive constraint. Hitachi is considered a more vigorous competitor.

### **Existing competition**

#### *Existing competition in the New Zealand market*

83. The Commission considers that Samsung and Hitachi currently provide only limited constraint on Western Digital and Seagate in New Zealand. However, the latter two suppliers would exert strong constraint on each other within New Zealand markets in the event that one or the other attempted to exert market power in New Zealand. The Commission also notes that there would be very little difference between the factual and the counterfactual in the relevant market in New Zealand.
84. Table 2 outlines the market shares for the major firms in the 2.5" HDD market in New Zealand.

**Table 2: Market share estimates for the 2.5" HDD market in New Zealand 2010**

| Company              | Sales NZ\$<br>(million) | %   |
|----------------------|-------------------------|-----|
| Seagate              | [ ]                     | [ ] |
| Samsung              | [ ]                     | [ ] |
| <b>Merged Entity</b> | [ ]                     | [ ] |
| Western Digital      | [ ]                     | [ ] |
| Hitachi              | [ ]                     | [ ] |
| <b>Merged Entity</b> | [ ]                     | [ ] |
| Toshiba              | [ ]                     | [ ] |
| <b>Total</b>         | [ ]                     | 100 |

Source: Estimates from information provided by industry participants

85. Table 2 shows that post-acquisition the Seagate/Samsung combined entity would have a market share of about [ ]. [ ]. The Western Digital/Hitachi combined entity will have a combined market share of about [ ], [ ]. Toshiba is very small in New Zealand.
86. The Applicant submitted that Western Digital is currently the biggest constraint on Seagate in New Zealand.<sup>22</sup> As noted above there is a second acquisition proposed between Western Digital and Hitachi. In both the factual and counterfactual scenarios Western Digital and Seagate would still be the two largest competitors. Samsung, Toshiba and Hitachi have comparatively very small market shares in New Zealand.
87. All of the distributors interviewed by the Commission stated that in New Zealand there is vigorous competition between the Seagate and Western Digital brands. Toshiba is generally only used for replacements or upgrades of Toshiba laptops and Samsung and Hitachi are small players in New Zealand.
88. [ ]<sup>23</sup>
89. Distributors had no competition concerns about the transaction in New Zealand. They advised the Commission that competition between Western Digital and Seagate is fierce and that would remain so post-acquisition. [ ] advised the Commission that the HDD business in New Zealand is exceptionally competitive; Western Digital and Seagate continually undercut each other to gain market share.<sup>24</sup>
90. [ ] described the HDD business as a commodity business with high throughputs and low margins in New Zealand. [ ] explained that its customers buy predominantly on price and as soon as one or other of Seagate or Western Digital gets out of line by

<sup>22</sup> Seagate Application for Clearance 4 July 2011, at 17.6.

<sup>23</sup> [ ]

<sup>24</sup> Interview with [ ] 20 July 2011.

perhaps 50 cents on an \$80 average price HDD unit, that could be sufficient for it to lose an order for 500 HDDs.<sup>25</sup>

91. [ ] advised the Commission that Samsung is very small in New Zealand and the demand is for Western Digital and Seagate.<sup>26</sup> Altech Computers is the only distributor that distributes Samsung HDDs in New Zealand. [ ]<sup>27</sup> [ ] advised the Commission that it views Samsung as a second tier supplier that is not of the same quality as Seagate or Western Digital.<sup>28</sup>
92. [ ] advised the Commission that Hitachi is even smaller than Samsung in New Zealand. [ ] and [ ] advised the Commission that Hitachi is active in the enterprise/server space and SSDs but is not strong in HDDs in New Zealand.<sup>29</sup>

*Existing competition in international markets*

93. The Commission considers that:
- 93.1 After the merger three strong competitors will remain in the 2.5" HDD market.
- 93.2 Toshiba is a more significant competitive force in global HDD markets than in New Zealand.
94. As noted above, under section 4(3) of the Act, section 47 extends to the acquisition outside New Zealand by a person (whether or not the person is resident or carries on business in New Zealand) of the assets of a business to the extent that the acquisition affects a market in New Zealand. Therefore, the Commission is obliged to consider the international implications of the matter.<sup>30</sup> If the acquisition substantially increases Seagate's market power in the market for manufacturing 2.5" HDDs, New Zealand importers/distributors may face price increases that given their small local margins would likely be passed onto local consumers.
95. That said, the Commission recognises that because Seagate does not have a presence in New Zealand, there may be limited remedies available to the Commission under section 47 of the Act, if Seagate proceeded with the acquisition in the face of the Commission declining to grant clearance.
96. Post-acquisition three strong competitors would remain in the 2.5" HDD market. [ ]<sup>31</sup>
97. Table 3 outlines the market shares for the major firms in the global 2.5" HDD market.

<sup>25</sup> Interview with [ ] 20 July 2011.

<sup>26</sup> Interview with [ ] 20 July 2011.

<sup>27</sup> Interview with [ ] 20 July 2011.

<sup>28</sup> Phone Interview with [ ] 2 August 2011.

<sup>29</sup> Interview with [ ] 20 July 2011.

<sup>30</sup> This is also consistent with section 3(3) of the Act.

<sup>31</sup> [ ]



**Table 3: Market share estimates for the global 2.5" HDD market 2010**

| Company              | Proportion of global market by revenue (%) |
|----------------------|--|
| Seagate              | [ ]  |
| Samsung              | [ ]  |
| <b>Merged Entity</b> | [ ]  |
| Western Digital      | [ ]  |
| Hitachi              | [ ]  |
| <b>Merged Entity</b> | [ ]  |
| Toshiba              | [ ]  |
| <b>Total</b>         | 100  |

Source: IDC and [ ]

98. Table 3 above shows that globally, Samsung, Hitachi and Toshiba have a significantly larger presence than in New Zealand. Post-acquisition, the merged entity would continue to face competition from the merged Western Digital/Hitachi and Toshiba.

99. [ ]

] <sup>32</sup>

100. [ ]

] <sup>33</sup>

101. The Applicant submitted that Toshiba will remain a strong constraint on price and innovation in relation to all product types, and is likely to see the merger of its rivals as an opportunity to capture market share.<sup>34</sup> [ ]

] <sup>35</sup>

102. The Applicant submitted that [ ]

] <sup>36</sup> [ ]

] <sup>37</sup> [ ]

] <sup>38</sup> [ ]

<sup>32</sup> [ ]

<sup>33</sup> [ ]

<sup>34</sup> Seagate Application for Clearance 4 July 2011, at 18.3.

<sup>35</sup> [ ]

<sup>36</sup> Seagate Application for Clearance 4 July 2011, at 5.7.

<sup>37</sup> [ ]

<sup>38</sup> [ ]

] <sup>39</sup> [  
 ] <sup>40</sup>

### Potential competition

103. An acquisition is unlikely to result in a substantial lessening of competition in a market if the businesses in that market continue to be subject to real constraints from the threat of market entry. The Commission's focus is on whether businesses would be able to enter the market and thereafter expand should they be given an inducement to do so, and the extent of any impediments they might encounter should they try.
104. High barriers to entry are likely to prevent new entrants in the global manufacturing market for HDDs. But there is potential in New Zealand for Toshiba to expand its operations in New Zealand and act as a stronger constraint on the combined entity.

#### *Potential competition in the New Zealand market*

105. The Applicant submitted that there are no significant barriers to entering or expanding into the distribution of HDDs in New Zealand. There is no local excise duty on imported HDDs, regardless of the country of origin. In addition, relative to the value of the product, the cost of transportation is very low.<sup>41</sup>
106. Toshiba currently has a small presence in New Zealand. Given it has a stronger presence globally, the Commission considers that there is potential for Toshiba to expand in New Zealand and gain market share.

#### *Potential competition in international markets*

107. The Applicant submitted that a new entrant could construct an entirely new production facility within approximately [ ] <sup>42</sup> The Applicant further submitted that a production facility would not be necessary to enter the market if a new entrant contracted with an original design manufacturer (ODM) or contract manufacturer (or if the new entrant itself were an ODM or contract manufacturer).<sup>43</sup>
108. [ ] submitted that a lack of technological, legal and regulatory barriers means a third party could enter HDD manufacturing and supply at relatively low cost. A new entrant could acquire commercially available HDD parts from established HDD parts vendors (for example, TDK) to comply with industry interface standards and manufacture HDDs using these parts; it does not have to produce HDD parts itself.<sup>44</sup>
109. [ ] <sup>45</sup> [ ]

] <sup>46</sup>

110. The Commission agrees with this position.

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<sup>39</sup> [ ]

<sup>40</sup> [ ]

<sup>41</sup> Seagate Application for Clearance 4 July 2011, at 19.7.

<sup>42</sup> Ibid, at 19.3.

<sup>43</sup> Ibid, at 19.4.

<sup>44</sup> [ ]

<sup>45</sup> [ ]

<sup>46</sup> [ ]

### Countervailing power

111. In some circumstances the potential for the merged entity to exercise market power may be sufficiently constrained by a buyer or supplier to eliminate concerns that an acquisition may lead to a substantial lessening of competition.
112. The Commission considers that New Zealand distributors do not have significant countervailing power so as to constrain Seagate and Western Digital. However, given that prices are determined at a global level and do not differ significantly between geographic regions, large overseas OEMs and large overseas retail chains have more significant buyer power through the use of multi-sourcing policies. Therefore, they could act as a global constraint on the combined entities.

### *Countervailing power in New Zealand*

113. The Applicant submitted that [ ]% of Seagate's sales into New Zealand are through distributors.<sup>47</sup> Seagate does not sell directly to retailers in New Zealand. Seagate submitted that distributors sell HDDs from multiple manufacturers and often negotiate volume based discounts.
114. [ ]<sup>48</sup>
115. Distributors interviewed by the Commission advised that they regularly receive price lists from the manufacturers but they have some ability to negotiate discounts from the price lists based on volume.
116. [ ] advised that it has a long-term supply contact with [ ] but pricing is not fixed in that contract.<sup>49</sup> [ ] and [ ] receive monthly price lists (often a global list) from Seagate.<sup>50</sup> [ ]. It advised the Commission that a local sales representative based in Singapore keeps a close eye on what is happening in the New Zealand market. The representative constantly receives feedback about pricing and adjusts prices accordingly.<sup>51</sup>
117. [ ] distributes Seagate and Western Digital HDDs. It advised the Commission that it has a limited ability to negotiate prices. Rather, if the price (and the exchange rate) is not favourable on the day of purchase, it will withhold its orders. [ ] advised the Commission that while it has limited ability to negotiate discounts, competition between Western Digital and Seagate is so fiercely competitive in New Zealand that if one of the combined entities attempted to raise its prices by a very small amount, it would lose market share.<sup>52</sup>
118. [ ] advised that in general, sales prices are negotiated on a worldwide basis and do not distinguish between shipment, destination, or for example, the geographic

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<sup>47</sup> [ ]

]

<sup>48</sup> [ ]

<sup>49</sup> Interview with [ ] 20 July 2011.

<sup>50</sup> Interviews with [ ] and [ ] 20 July 2011.

<sup>51</sup> Interview with [ ] 20 July 2011.

<sup>52</sup> Interview with [ ] 20 July 2011.

focus of a given OEM. Consequently, unit prices do not typically differ from one geographic region to another. Therefore the unit prices for HDDs in New Zealand are unlikely to differ from global prices for HDDs.<sup>53</sup>

*Countervailing power in international markets*

119. The Applicant submitted that there are three distribution channels for HDDs:

119.1 OEMs - these include PC manufacturers like Hewlett Packard, Dell, and Sony, and Microsoft who purchase HDDs for their computers, gaming systems and cloud storage systems.

119.2 Independent distributors who resell the drives to retailers or directly to end users.

119.3 Large retailers.<sup>54</sup>

120. The Applicant submitted that global customers for all types of HDDs are generally large and sophisticated buyers that have considerable buyer power.<sup>55</sup> The Applicant further submitted that the cost to OEMs of switching is very low. OEMs engage in simultaneous bilateral negotiations to optimise pricing, and continuously renegotiate pricing.<sup>56</sup>

121. [

] <sup>57</sup> [

] <sup>58</sup>

**Competition analysis 3.5" HDD markets**

122. The Commission considers that Seagate would continue to be constrained by Western Digital in the factual in 3.5" HDD markets. The potential for the acquirer of Western Digital's divested 3.5" production assets to expand into New Zealand provides an additional constraint.

123. While the Commission has identified separate desktop and consumer electronic 3.5" HDD markets, we have assessed these and the 3.5" proportion of the external HDD markets together in this section, as the same competition issues apply to both of these markets in New Zealand.

124. The Applicant submitted that it would continue to face constraint post-acquisition, in the HDD market from:

124.1 Existing global competitors Western Digital and Toshiba.

124.2 The countervailing power of large global OEMs.

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<sup>53</sup> [ ]

<sup>54</sup> Seagate Application for Clearance 4 July 2011, at 9.3.

<sup>55</sup> Ibid, at 24.1.

<sup>56</sup> Ibid, at 24.4-24.5.

<sup>57</sup> [ ]

<sup>58</sup> [ ]

125. Having considered the competition effects of the proposed acquisition, the Commission is satisfied that the proposed acquisition will not have, or would not be likely to have, the effect of substantially lessening competition in the 3.5" HDD market.
126. Any lessening of competition is unlikely to be substantial in New Zealand as Samsung and Hitachi currently provide limited competitive constraint and because the combined entities would continue to constrain each other.
127. In relation to the international market, the proposed divestment ensures that there will remain three strong competitors in the 3.5" HDD market.

### Existing competition

#### *Existing competition in New Zealand market*

128. Table 4 outlines the market shares for the major firms in the 3.5" HDD market in New Zealand.

**Table 4: Market share estimates for the 3.5" HDD market in New Zealand 2010**

| Company              | Sales NZ\$<br>(million) | %   |
|----------------------|-------------------------|-----|
| Seagate              | [ ]                     | [ ] |
| Samsung              | [ ]                     | [ ] |
| <b>Merged Entity</b> | [ ]                     | [ ] |
| Western Digital      | [ ]                     | [ ] |
| Hitachi              | [ ]                     | [ ] |
| <b>Merged Entity</b> | [ ]                     | [ ] |
| Toshiba              | [ ]                     | [ ] |
| <b>Total</b>         | [ ]                     |     |

Source: Estimates from information provided by industry participants

129. Table 4 above shows that post-acquisition the Seagate/Samsung combined entity would have a market share of about [ ]%. [ ]. The Western Digital/Hitachi combined entity will have a combined market share of about [ ]%, [ ]. Toshiba does not supply 3.5" HDDs in New Zealand.
130. As discussed in paragraphs 89-92 above, distributors had no competition concerns about the transaction in New Zealand. They advised the Commission that competition between Western Digital and Seagate is fierce and that would remain post-acquisition.

#### *Existing competition in international markets*

131. The Commission considers that:

- 131.1 After the merger, three strong competitors will remain in the global 3.5" HDD market with the proposed divestment from Western Digital.

- 131.2 Toshiba is not a significant competitive force in global 3.5”HDD markets or in New Zealand.
  - 131.3 Samsung currently provides only limited constraint and is considered a minor player compared to Western Digital, Seagate and Hitachi.
132. Table 5 outlines the market shares for the major firms in the global 3.5” HDD market.

**Table 5: Market share estimates for the global 3.5” HDD Market 2010**

| <b>Company</b>       | <b>Proportion of global market by revenue (%)</b> |
|----------------------|---|
| Seagate              | [ ]   |
| Samsung              | [ ]   |
| <b>Merged Entity</b> | [ ]   |
| Western Digital      | [ ]   |
| Hitachi              | [ ]   |
| <b>Merged Entity</b> | [ ]   |
| Toshiba              | [ ]   |
| <b>Total</b>         |   |

Source: Source: IDC and [ ]

Note: Column does not add due to rounding error in the original source.

133. Table 5 above shows that globally, Samsung and Hitachi have a significantly larger presence than in New Zealand. Samsung is the smallest competitor in this market and Toshiba does not offer 3.5”Desktop or CE HDDs. Post-acquisition, the merged entity will continue to face competition from the merged Western Digital/Hitachi.
134. Toshiba does not supply 3.5”desktop or 3.5”Consumer Electronic HDDs and it only recently launched a 3.5” Business Critical HDD product. [

] <sup>59</sup>

135. [

] <sup>60</sup>

136. The combined entity and Western Digital/Hitachi may exert sufficient competitive constraint over each other if the market for HDDs was a “winner takes all market”. But it is instead a market where multi-sourcing policies are employed by customers. [

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<sup>59</sup> [ ]

<sup>60</sup> [ ]

] <sup>61</sup>

137. The proposed divestment by Western Digital outlined in paragraph 72 will result in a new competitor in the 3.5" HDD market. This means there will be three competitors in the 3.5" HDD market which should allow OEMs to continue to employ a successful multi-sourcing policy. [

] <sup>62</sup>

**Potential competition**

138. As noted in paragraphs 109 - 110 above, the Commission considers that new entry into the global HDD market is unlikely due to high barriers to entry. However, there are no significant barriers to expansion or entry to importing HDDs into New Zealand. Accordingly, the company that purchases the divestment business from Western Digital should be able to expand if required.

**Countervailing power**

139. For the reasons outlined in paragraphs 115-118 above, the Commission considers that New Zealand distributors do not have significant countervailing power so as to constrain Seagate and Western Digital.

140. If only two competitors were to remain in the 3.5" HDD market post-acquisition, [

] <sup>63</sup>

141. If three competitors remain in the global market post-acquisition as a result of the proposed divestment from Western Digital/Hitachi then global OEMs and other large customers will continue to be able to employ an effective multi-sourcing policy as outlined in paragraph 121 above.

**Coordinated effects**

142. The Commission considers that the merger is unlikely to lead to an increase in coordination between HDD manufacturers in the relevant markets.

143. In the factual, the removal of Samsung would lead to increased concentration in the market as the number of competitors will decrease from four to three in the 2.5" HDD and 3.5" HDD markets. This could enhance the potential for coordination in the market. However, the Commission considers that coordination would be unlikely given the short product lifecycle of HDDs, the number of different products within each HDD market and the frequency of price negotiations with customers.

144. [

] <sup>64</sup> [

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<sup>61</sup> [ ]  
<sup>62</sup> [ ]  
<sup>63</sup> [ ]  
<sup>64</sup> [ ]

] <sup>65</sup> [

] <sup>66</sup> [

] <sup>67</sup>

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65 [ ]  
66 [ ]  
67 [ ]



### **Determination on Notice of Clearance**

145. Pursuant to s 66(3)(a) of the Commerce Act 1986, the Commission determines to give clearance for Seagate Technologies Plc to acquire certain assets of the hard disk drive business of Samsung Electronics Co. Limited.

Dated 15 December 2011

A handwritten signature in blue ink, appearing to read "Mark Berry". The signature is written in a cursive style with a horizontal line underneath the name.

Dr Mark Berry  
Chair