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**DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS  
COMPETITION COMMITTEE**

**Working Party No. 3 on Co-operation and Enforcement**

**Methodologies for Conducting Market Studies - Note by Singapore**

**20 June 2017**

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*More documents related to this discussion can be found at [www.oecd.org/daf/competition/market-study-methodologies-for-competition-authorities.htm](http://www.oecd.org/daf/competition/market-study-methodologies-for-competition-authorities.htm).*

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## Singapore\*

### 1. Introduction

1. The Competition Commission of Singapore (“CCS”) welcomes the opportunity to share its experience and practice with the OECD’s Working Party No. 3 on Co-operation and Enforcement, on the roundtable topic of “*Methodologies for conducting market studies*”.
2. CCS is an independent statutory body with the mandate of administering and enforcing the Competition Act<sup>1</sup> (Cap. 50B) (the “Act”). Beyond its enforcement regime, CCS conducts market studies to complement its efforts in promoting competitive markets in Singapore. This paper therefore aims to detail CCS’s methodology in conducting such market studies, using two case studies to further illustrate CCS’s approach in practice.

### 2. Purpose of Market Studies

3. CCS adopts a broad view<sup>2</sup> of what is considered a market study and conducts market studies primarily to understand how markets work and the effects of a market feature (or combination of features) on competition in connection with the supply or acquisition of any goods or services in Singapore.<sup>3</sup> The purpose of market studies is therefore to complement CCS’s enforcement actions in at least three ways:
  - First, market studies allow CCS to better understand a market, especially in situations where CCS may have received frequent complaints from the public or feedback from government agencies, but is unable to pin-point any specific anti-competitive agreement or conduct in the first instance. While a market study may well form part of a general enquiry for CCS to better understand the existing market dynamics, CCS would not hesitate to investigate and enforce a relevant prohibition(s) under the Act should a market study subsequently reveal sufficient evidence of anti-competitive agreements or conduct.
  - Second, market studies are an avenue to identify causes of ineffective or lackluster competition in the market, but which do not amount to any sort of anti-competitive behavior. Such market studies may typically be conducted as a follow-up from investigations which do not result in an infringement decision, but where the market still suffers from ineffective competition. In this regard, market studies help identify other causes of competition problems (e.g. market failure, information asymmetry, regulatory barriers etc.), so that appropriate solutions may be recommended to the relevant government agencies.

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<sup>1</sup> The Act is largely based on the competition provisions of the Treaty of the Functioning of the European Union and the United Kingdom Competition Act 1998.

<sup>2</sup> There is no legal definition for ‘market study’ under the Act.

<sup>3</sup> Note that CCS does not conduct market studies in preparation for the intervention in the legislative process.

- Third, market studies help CCS ascertain whether a particular market practice which is occurring overseas, is also occurring in Singapore or has an adverse impact on Singapore. Such concerns typically arise where there are frequent investigations into a specific market overseas. Through market studies, CCS may seek to understand market practices in that specific market in Singapore and explore whether similar anti-competitive activities are occurring in the domestic market and/or whether the anti-competitive activities overseas have any impact in Singapore. Likewise, if the market study subsequently reveals sufficient evidence of anti-competitive agreements or conduct, CCS may take up an investigation and enforce the relevant prohibition(s) under the Act.

### 3. Legal Framework for Market Studies

#### 3.1. Implicit powers to perform market studies

4. While there are no “express legal powers”<sup>4</sup> under the Act for CCS to carry out market studies per se, CCS is vested with specific legal functions and duties to promote and foster competition in markets in Singapore. In this connection, the power to conduct market studies can therefore be seen as an implicit one that arises from and accords with the spirit and purpose of CCS’s mandate.

5. Section 6 of the Act states that the functions and duties of CCS shall be to, inter alia, (i) maintain and enhance efficient market conduct and promote overall productivity, innovation and competitiveness of markets in Singapore; (ii) eliminate or control practices having adverse effect on competition in Singapore; (iii) promote and sustain competition in markets in Singapore; and (iv) promote a strong competitive culture and environment throughout the economy in Singapore. Against this backdrop, it is beyond doubt that market studies serve to complement CCS’s efforts in carrying out its functions and duties.

#### 3.2. Powers to require documents or information

6. In carrying out market studies, CCS may exercise express powers under section 61A of the Act to require any person to produce specified documents or information, where it has reasonable grounds for suspecting that any feature, or combination of features, of a market in Singapore prevents, restricts or distorts competition in Singapore.<sup>5</sup> In this regard, a “feature” of a market in Singapore for goods or services refers to:<sup>6</sup>

- The structure of the market concerned or any aspect of that structure;
- Any conduct<sup>7</sup> (whether or not in the market concerned) of one or more than one person who supplies or acquires goods or services in the market concerned; or
- Any conduct relating to the market concerned of customers of any person who supplies or acquires goods or services.

<sup>4</sup> “Express legal powers” means powers that are explicitly stated in domestic laws or regulations for carrying out market studies.

<sup>5</sup> Section 61A(1)(a) of the Act.

<sup>6</sup> Section 61A(5) of the Act.

<sup>7</sup> “Conduct” includes any failure to act (whether or not intentional) and any other unintentional conduct.

7. Thus, while there is no express provision under the Act to perform market studies, judicious use of section 61A powers has enabled CCS to carry out market studies effectively.

8. To that end, the certainty and accuracy of specified documents and information received through section 61A powers are also ensured through sanctions for the refusal to provide information, the destroying or falsifying of documents, the provision of false or misleading information, and the obstruction of a CCS officer's discharge of his duties.<sup>8</sup> These sanctions under the Act are criminal offences<sup>9</sup> for non-compliance with formal information requests by CCS through section 61A powers, and offenders are liable to be prosecuted in court.

9. In relation to the protection of documents and information that CCS receives, CCS has in place rules and standard procedures for the preservation of secrecy, regardless of whether the information is confidential or non-confidential, and regardless of the context in which such information is obtained (e.g. in a market study or in an investigation).<sup>10</sup>

### **3.3. Market studies as distinct from competition enforcement**

10. While one of the outcomes of a market study can be enforcement action should CCS uncover evidence of anti-competitive conduct during the market study, it is pertinent to note that CCS has separate powers of investigations.<sup>11</sup> Therefore, any enforcement action taken, and the conduct of market studies, are distinct processes. In this regard, CCS is not allowed to use confidential or non-confidential information obtained for the purpose of a market study for subsequent enforcement actions. However, the same information can be obtained through exercising section 63 powers pursuant to the commencement of investigations.

## **4. Initiation of Market Studies**

11. Market studies may be externally initiated based on complaints or feedback to CCS, or self-initiated.

### **4.1. External initiation**

12. As mentioned in the first two bullet points of paragraph 3 above, CCS may conduct a market study when it has received relevant complaints from the public or feedback from other government agencies,<sup>12</sup> but is unable to identify specific anti-competitive agreement or conduct in the first instance. Alternatively, in the event that an investigation conducted by CCS does not result in an infringement decision but where the

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<sup>8</sup> See generally, sections 75 to 78 of the Act.

<sup>9</sup> See section 83 of the Act for the general penalty.

<sup>10</sup> These rules are set out in section 89 of the Act and Regulation 28 of the Competition Regulations 2007.

<sup>11</sup> See generally, sections 62 to 65 of the Act.

<sup>12</sup> CCS maintains the discretion to decide whether to commence a market study based on the potential competition concerns involved, as well as its own internal resource availability.

market is suffering from ineffective competition, CCS may choose to follow up with a market study to identify other causes of competition problem and recommend solutions to the relevant government agencies to resolve or mitigate the competition concerns.

#### 4.2. Self-initiated

13. CCS also proactively identifies suitable markets to study through its own scanning framework, which is conducted annually to highlight suitable markets to study based on indicators such as frequency of complaints, high concentration, unexplained price movements etc.

### 5. Conduct of Market Studies

14. In general, market studies are conducted in-house by CCS officers. However, CCS may also consider outsourcing the market study partially or fully to an external consultant, where, for instance, the need arises for specific industry expertise, independence, and/or objectivity.<sup>13</sup>

15. Depending on the complexity of the markets and issues involved, the conduct of a market study generally spans six months to about two years, and typically comprises the following main phases:

- Identifying issues and competition concerns to be addressed (scoping);
- Information gathering; and
- Information analysis and recommendations;

16. In the ensuing paragraphs, each of the phases of a market study will be elaborated upon in turn.

#### 5.1. Identifying issues and competition concerns (scoping)

17. Before commencing a market study, the relevant issues and competition concerns to be addressed would have to be identified preliminarily through public or internal information in the first instance. Where appropriate, CCS may contact selected industry players, customers, relevant government agencies or sector regulators to find out more about the industry and identify possible competition concerns.<sup>14</sup> For market studies triggered by complaints, CCS would engage complainants to obtain further details. Other relevant studies or overseas investigations may be referred to as additional sources of information.

18. Once a market study has commenced, scoping the market study appropriately and developing a realistic timeline is imperative at the early stage. Based on the competition concerns identified, CCS would have to ascertain the products/services and markets of

<sup>13</sup> Subject always, to availability of funding and/or need to preserve confidentiality of a market study.

<sup>14</sup> In engaging industry players and customers, CCS finds it useful to allay any concerns and encourage more open sharing by explaining upfront that CCS is not conducting a formal investigation at that stage, but is finding out more about the industry to understand whether there are any possible competition concerns.

concern,<sup>15</sup> and if need be, prioritise the markets to be studied based on the likelihood and impact of harm if many markets of concern are identified.

## 5.2. Information gathering

19. Having identified the relevant competition concerns and markets, CCS will proceed to identify the information required to make the necessary competition assessment, and correspondingly, the persons who may hold the required information, for example:

- Market players or business associations who may be involved in supplying or buying the products/services of concern;
- End-users, especially if they are affected by the competition concern;
- Industry or academic experts, who specialise in the industry or in related competition matters;
- Government agencies, particularly those involved in formulating or implementing policies and regulations on the identified markets, e.g. sector regulator; and/or
- Overseas competition authorities for instances where similar cases or concerns were dealt with in their markets.

20. The subsequent steps of obtaining the required information will typically involve:

- Desktop research;
- Purchasing data or reports from external vendors;
- Informal meetings with market players or business associations;
- Mystery caller or mystery shopper;<sup>16</sup>
- Surveys or focus groups with consumers;
- Meetings with government agencies;
- Meetings with industry or academic experts;
- Teleconferences with overseas competition authorities; and
- Use of section 61A powers<sup>17</sup> under the Act to request for information from relevant stakeholders.<sup>18</sup>

## 5.3. Information analysis and recommendations

21. The information gathered will be assessed both qualitatively and/or quantitatively, depending on the competition concerns identified and the data collected.

22. CCS will then develop recommendations to address the relevant competition issues previously identified, for example:

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<sup>15</sup> In identifying the markets, CCS considers the entire supply chain of products/services of concern, since competition problems may stem from market(s) or activities along other parts of the supply chain.

<sup>16</sup> For example, this may involve taking on the identity of a customer to seek information from the relevant market players on the prices or products of concern.

<sup>17</sup> Refer to paragraphs 6 to 9 above for more details.

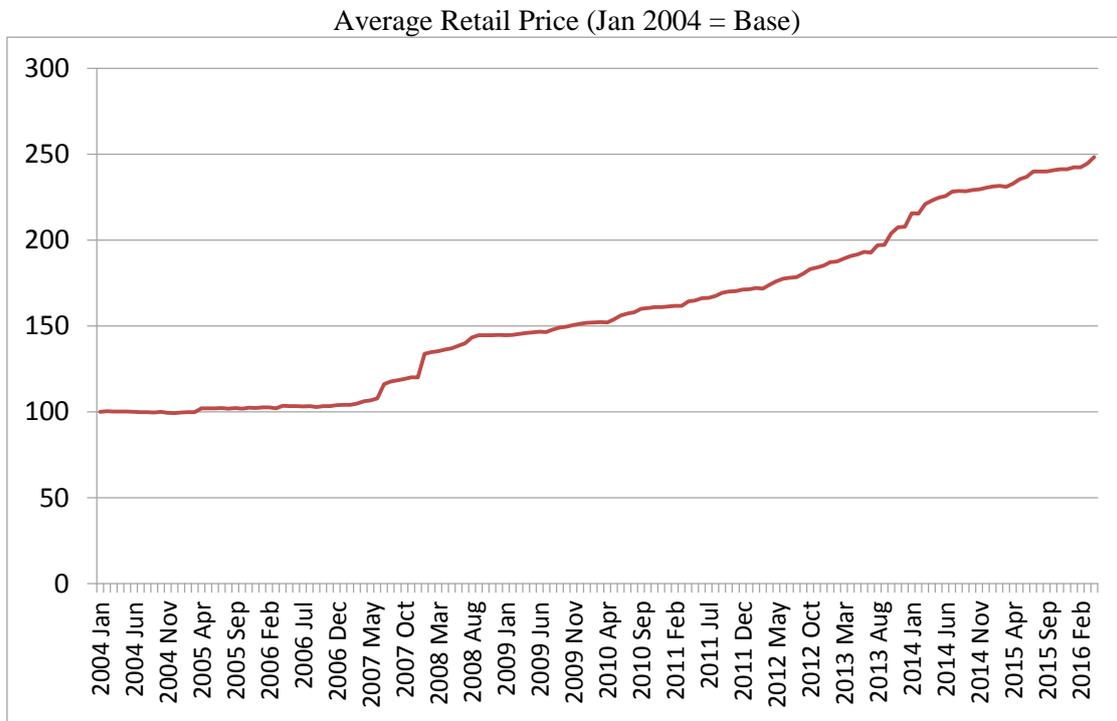
<sup>18</sup> Section 61A information requests are typically targeted at market players which can provide the most useful and representative information.

- If anti-competitive practices by industry players are uncovered through the Market Study, CCS will consider whether to trigger the use of its investigation powers for a formal investigation;
  - For other competition concerns uncovered which do not warrant enforcement action, CCS may consider ways to mitigate or resolve these concerns. For instance, if there is market failure relating to information asymmetry, CCS may recommend ways to close the information gap such as organising industry outreach or consumer education programs in partnership with other government agencies or business associations;
  - If a competition concern is caused by, or can be solved by, government regulations, policies or initiatives, CCS may also consider providing feedback or working with the relevant government agencies e.g. through competition advisories.
23. CCS will generally publish the results of its market studies to share its findings with the public, as well as to use the studies to educate the public on CCS's work.
24. To further illustrate CCS's approach to market studies in practice, two case studies will now be highlighted in turn.

## 6. Case Study 1: Formula Milk Market Study

25. The rising prices of Formula Milk in Singapore was the main impetus for this market study. According to statistics from the Singapore Department of Statistics, the average retail price of Formula Milk has more than doubled over the past nine years (see Figure 1). There have also been reports and articles in newspapers reflecting the concerns of parents regarding this issue (see Figure 2). Hence, in October 2015, CCS started a market study to examine the Formula Milk industry in Singapore and the nature of competition at each level of the supply chain, in order to understand the reasons for the significant increase in the prices of Formula Milk in Singapore in recent years.

**Figure 1. Average Retail Prices of Formula Milk in Singapore**



Source: Singapore Department of Statistics.

**Figure 2. Article on Rising Formula Milk Prices**

## Parents sour over baby-milk prices

**From:** Parents sour over baby-milk prices **Tag:** switching from formula to milk

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**It costs twice as much to feed your baby today**  
**Milk formula prices here have more than doubled on average since 2004**  
 By Kash Cheong, The Straits Times, 15 Dec 2014

THE average price of baby milk has more than doubled in the past decade and parents say they are feeling the pinch.

In 2004, the average price of formula, including that for infants and for babies six months and older, was \$22.66 for a 900g tin. It has climbed steadily to hit \$50.01 in October this year from an average of \$44.30 last year, according to figures obtained recently by The Straits Times from the Department of Statistics.

Baby milk showed the steepest price rise among dairy products.

According to Department of Statistics figures, prices went up by 11 per cent for eggs and 68 per cent for condensed milk over the last decade. A one-litre pack of fresh milk increased by 14 per cent from \$2.53 in 2004 to \$2.89 this October.

**PUNCH LINES**

**NEWS ITEM #1** First SG50 gift sets ready to welcome babies next year

Next year...

What?? No milk powder vouchers??

**NEWS ITEM #2** Steep increase in baby milk prices: Parents feel the pinch

Source: The Straits Times, 15 Dec 2014.

26. The study was conducted from October 2015 to August 2016, and the report was finalized in December 2016. In this market study, CCS utilised a variety of approaches to engage stakeholders to better understand the supply chain. CCS met with selected

companies to understand their roles in the supply chain, model of operations in Singapore and strategies in relation to Formula Milk. CCS also engaged relevant government agencies to understand the various regulations governing the import and sales of Formula Milk in Singapore. CCS also exercised section 61A powers to request documents and information from identified stakeholders. The considerations underlying the type of information gathered and how to gather the information are outlined in the paragraphs below.

27. Scoping of Information Gathering. As the focus of the market study was to understand the reasons for the price increase, prior to formal data gathering, CCS conducted desktop research to obtain a basic understanding of the Formula Milk supply chain in Singapore and the possible reasons for the increase in prices. This was done through desktop research of, e.g., newspaper reports, work by overseas competition authorities and industry reports that CCS subscribes to. CCS further found that the import and sale of Formula Milk in Singapore is subject to regulations by various government agencies, which could have an impact on competition in the Formula Milk industry. These preliminary observations helped CCS to scope the information required to ascertain if the reasons commonly cited were true.

28. Information Gathering. To ascertain the reasons for the increase in prices, CCS sought data on costs of goods sold, marketing expenditure, research and development (“R&D”) expenditure, as well as wholesale prices, retail prices, sales revenue and sales volume broken down by brands and types of products,<sup>19</sup> and profit or margin levels. CCS also required information on how competition worked in this industry, e.g. if the Formula Milk manufacturers competed with each other based on price or non-price factors, and how consumers made their purchasing decisions and their purchasing behaviour. Such information is commercially sensitive and is not readily available publicly. It was highly unlikely that CCS could obtain this information without utilizing its powers under the Act. Hence, having established that the relevant thresholds had been crossed (see paragraph 6), CCS utilized powers under section 61A of the Act to obtain this information directly from the relevant stakeholders. The information obtained was complemented by qualitative information from meetings with various stakeholders in the Formula Milk supply chain, including government agencies and selected companies. The meetings helped CCS contextualize the written responses received, as well as provided fresh perspectives on why certain competitive strategies were pursued. In relation to consumer behavior, CCS obtained copies of industry research and consumer survey reports which the companies subscribed to, using CCS’s section 61A powers. CCS also conducted further desktop research of overseas Formula Milk prices for comparison.

29. Information Analysis. CCS’s data analysis sought to understand how the price of Formula Milk is affected as it moves through the various levels of the supply chain. As manufacturers typically sell a range of Formula Milk products and in various packaging sizes, it was not possible to analyse each and every product. Instead, CCS chose each manufacturer’s flagship Stage 1 product and flagship Stage 2 product, in packaging size of around 800g to 900g. This is because there are fewer nutrition substitutes for Formula Milk for Babies and Infants (other than breast milk), and hence the insights from this analysis would be more instructive for CCS’s recommendations as compared to Stage 3

<sup>19</sup> Formula Milk products are categorized into (a) Starter Milk, also known as Stage 1 Milk (for 0-6 months); (b) Follow-on Milk, also known as Stage 2 Milk (for 7-12 months); (c) Growing-up Milk, or Stage 3 onwards (for 1-6 years); and (d) Specialty Milk (special formula for Babies, Infants and Young Children with special dietary needs)

and Stage 4 Formula Milk, for which there are other nutrition choices (i.e., Formula Milk prices may be less critical). The data collected by CCS also showed that consumers typically purchase more units of 800g to 900g packaging sizes as compared to 400g or 1.6kg-1.8kg packaging sizes of the same product.

30. After selecting two products per brand, CCS studied the price and cost trends of these representative Formula Milk products over the period from 2007 to 2015.<sup>20</sup> This was done by matching cost of goods sold data, volumes, cost per unit, and wholesale prices in relation to Formula Milk sold in Singapore, with the distributors' prices and average or actual retail prices. CCS also obtained financial information from each manufacturer.

31. It is worth noting that the products selected did not remain the same over the nine-year period studied. CCS observed rebranding, changes in formulation, and changes in packaging sizes regularly for each product, especially for the premium brands. As such, using any single specific product would not have yielded data of sufficient duration to study any trends meaningfully. Hence, the data was derived from matching successive flagship Stage 1 and Stage 2 products, which represented changes within the same category over time, rather than tracking the same product over time. The challenges highlighted above mean that when analysing the data, long term trends are more instructive in providing a complete picture, as opposed to focusing on specific changes month to month (or perhaps even year to year). Similarly, it may not be meaningful to compare levels across manufacturers, brands or products. Consequently, CCS's analysis focused on common features in the *trends* across manufacturers and products.

32. CCS's analysis of the quantitative data showed that while the unit cost of goods sold generally increased for manufacturers, it was not true across the board. The bulk of the Formula Milk price increase was due to mark up at the wholesale level, rather than an increase in the unit cost of goods sold. In this respect, CCS found that marketing expenditure increased for most manufacturers and that price increases tended to take place when new products were being introduced. This supported the qualitative feedback that manufacturers placed more emphasis on non-price competition over price competition at the wholesale level. The manufacturers have made use of marketing and parents' preference for premium brands to drive the sales of higher-priced products.

33. The findings from the market study have been published on 10 May 2017.<sup>21</sup> Suffice to say, the findings and recommendations have been positively received and have begun to trigger the need for coordinated action amongst different government agencies.

## 7. Case Study 2: Petrol Market Study

34. CCS commenced a market study into the Singapore retail petrol market in 2015. The study took place during a time of volatility in listed retail petrol price and amidst feedback from the public that listed retail petrol prices did not fall in line with the decline in crude oil prices.

<sup>20</sup> Only data up to October 2015 was provided.

<sup>21</sup> The findings from CCS's Formula Milk market study can be found on CCS's website here: <https://www.ccs.gov.sg/~media/custom/ccs/files/media%20and%20publications/media%20releases/infa nt%20formula%20milk/formula%20milk%20market%20study%20occasional%20paper.ashx>

35. Scoping of Information Gathering. To prepare for the market study, CCS enquired on the concerns that needed to be addressed by studying public feedback and publicly-available prices. As the concerns relate to responsiveness of retail petrol price movements, CCS scoped the market study to focus on the decision-making processes of petrol companies<sup>22</sup> and motorists with respect to price.

36. Information Gathering. For the purpose of the market study, CCS collected relevant qualitative and quantitative information for analysis. CCS exercised its section 61A powers to collect relevant information from the petrol companies. CCS also subscribed to the Mean of Platts Singapore (“MOPS”) prices, and commissioned a consumer survey on petrol demand in Singapore to understand consumer choices and switching behaviour on petrol purchases. To have a more complete understanding of the industry, CCS also met relevant government agencies, industry experts, and conducted teleconferences with overseas competition authorities.

37. CCS found that consumers enjoyed an average of about 18% in discounts and rebates off the listed retail petrol price for Octane 95<sup>23</sup> petrol in 2014. These discounts come from the ‘walk in’ site discount, the loyalty program and credit card payment.<sup>24</sup>

38. Information Analysis. CCS studied the components of listed petrol price over the years to understand what drove price changes, and found that the non-fuel components (i.e. operating costs, taxes and duties, land costs, discounts and rebates) have generally increased in the past few years. Despite cost increases, operating income margin of petrol companies has also increased.

39. CCS studied how changes in MOPS price as an input cost to the petrol companies affect listed retail petrol price. In this regard, CCS found relatively high level of pass-through of the fall in MOPS price to consumers, although the pass-through is neither complete nor immediate. CCS performed econometric analysis and found that the pass-through was the same whether the price of MOPS increased or decreased. There was no significant difference between the time taken to raise the listed price and the time taken to lower the price.

40. CCS noted that based on the information gathered, there was no evidence to suggest collusion in petrol pricing, even though petrol companies monitor and react to each other’s published prices.

41. The interim findings from the market study have been published on 23 February 2016.<sup>25</sup> CCS will release the final report when the market study concludes.

<sup>22</sup> The four petrol companies were Esso, Shell, Caltex and SPC.

<sup>23</sup> Octane 95 petrol is the most pumped petrol in Singapore.

<sup>24</sup> Although there is a credit card component, the total discounts and rebates is an average of all transactions, including those paid by credit card and non-credit card holders.

<sup>25</sup> The interim findings from CCS’s Retail Petrol Study can be found on CCS’s website here: [https://www.ccs.gov.sg/~media/custom/ccs/files/media%20and%20publications/media%20releases/retail%20petrol%20study%2023%20feb%2016/media%20release\\_%20interim%20findings%20from%20ccs%20retail%20petrol%20study.ashx](https://www.ccs.gov.sg/~media/custom/ccs/files/media%20and%20publications/media%20releases/retail%20petrol%20study%2023%20feb%2016/media%20release_%20interim%20findings%20from%20ccs%20retail%20petrol%20study.ashx)

## 8. Conclusion

42. With this paper, CCS has sought to provide an overview on its methodology in conducting market studies, and how it has been applied in practice as illustrated in the above case examples. Indubitably, market studies have played (and continue to play) a complementary role to CCS's competition enforcement efforts and are certainly an integral component in CCS's work of promoting and sustaining competitive markets in Singapore.