The use of profitability analysis by competition authorities

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Introduction

1. It is fair to say that competition authorities around the world do not normally engage in detailed financial analysis when assessing mergers and undertaking market studies. Determining market concentration or investigating the existence of entry barriers is usually done without any consideration of companies' financial statements. This is because profitability is typically seen as a measure of a company's operating performance rather than a tool that can provide useful insights into the features of a market.

2. However, in the recent past, profitability has played an important part in competition investigations in the UK, where the Competition Commission (CC) has used profitability as an indicator of market power, or competitiveness, in its market investigations. Other jurisdictions, namely Australia, have also used profitability as a means of assessing the performance of markets.

3. This paper looks at some of the recent uses of profitability in UK competition investigations, the methodologies adopted and some of the conceptual issues that have arisen in those cases. There is also a discussion on the degree of reliance that can be placed on profitability analysis when making inferences about market competitiveness or pricing levels.

Uses of profitability assessment

4. Before discussing the conceptual issues, it is worth outlining some of the recent uses of profitability assessment in competition assessment. An analysis of profits and returns is most commonly applied by competition authorities in cases involving pricing practices such as predatory pricing and margin squeeze. In addition, regulators will set prices so as to allow a utility company to earn an adequate return over the course of a price control period. However, in recent years there have been other uses of profitability that have complimented traditional analyses of markets. This is most evident in the UK, where the Competition Commission (CC) usually assesses the profit returns of companies under market investigations in order to determine the degree of market power possessed by those companies.

5. The rationale of profitability assessment in this context lies in economic theory; in a perfectly competitive market, prices should reflect an efficient level of costs plus a reasonable profit. In less competitive markets, prices are likely to significantly exceed efficiently incurred costs, and hence high profits should be observed. The OFT's market power guidelines argue that a firm's financial performance may provide evidence on whether it possesses market power[3]. The CC guidelines also state that persistent profits, substantially in excess of the cost of capital, could be an indication

[3] OFT Assessment of Market Power paragraph 6.5, December 2004

of limitations in the competitive process, and that it will normally consider profit levels as an indicator of competitive conditions[4].

6. There have been 13 completed market studies carried out by the CC since 2000. Of these, 10 have made use of a detailed profitability analysis with the aim of providing evidence of the existence of market power. The most notable market studies where profitability analysis played a key role in the CC's findings as well as its formation of remedies were the investigations into the supply of banking services to SMEs, store credit card services and home credit services:

    - In the investigation into the supply of banking services to SMEs[5], the CC found that the four largest clearing banks (Barclays, HSBC, Lloyds and RBS) were deriving excessive prices and profits in the SME segment (based on the return on equity measure), even after accounting for additional intangible assets, and the allowance for higher capital needed to support SME banking[6]. Specifically, it calculated that these banks were charging, collectively, excessive prices of about £725 million a year over a three year period. In terms of remedies, the CC recommended that the four largest clearing groups be required to pay interest on current accounts at the base rate less 2.5% or, alternatively, to offer SMEs accounts that were free of money transmission charges or to offer SMEs a choice between the two options.

    - The investigation into store card services found that the store card sector had derived net profits of around £270 million in excess of the cost of capital during the six year period 1999 to 2004 (also based on the return on equity measure), and that these excess profits represented evidence of a lack of competitive pressure on store credit card rates and other charges. The CC report stated:

      "..the evidence on profitability between 1994 to 2004, and in particular the persistently high profitability of one provider representing a substantial part of the market, is consistent with, and indicative of, a lack of competitive pressure on APRs, late payment fees and insurance charges in the store card sector".[7]

    - The investigation into the home credit market calculated that the largest players in the market had, during the period under review, derived returns substantially and persistently in excess of the cost of capital typical of a large home credit provider. Accordingly, the CC concluded, along with other evidence from price comparisons, that prices in the UK home credit market were higher than would have been in a competitive market. It is worth noting that the CC was reluctant to rely solely on profitability analysis for its competition assessment. It stated:

      "...we believe that profitability remains just one indicator of the extent of competition in a market and we therefore do not draw firm conclusions from

[4] Competition Commission Market Investigation References: Competition Commission Guidelines, July 2003, paragraph 3.81 et seq

[5] A report on the supply of banking services by clearing banks to small and medium-sized enterprises [2002]

[6] The CC also found that the level of bad debts in the period examined was likely to be below the long-term level and that other adjusted were made to bank profits for their relatively high cost levels.

[7] Competition Commission Store Card Market Investigation, paragraph 8.82

our profitability analysis alone. Indeed, we have not sought to do so in this case".

7. The above investigations are examples where the CC was able to use profitability analysis to justify its findings that the major participants in each of the markets possessed market power. In some of its other investigations, it was unable to draw strong conclusions, either because of the ambiguity of results or a lack of robust financial data[8].

8. In one of its investigations (UK Supermarkets)[9], the CC was able to conclude from its profitability analysis that there was in fact adequate competition in the market:

> *"In the light of all the evidence...we take the view that the overall profitability of the multiple grocery retail industry cannot be considered excessive now, or to have been excessive.....whether compared with other industries, overseas grocery retailers or the cost of capital, there is no indication of the average profits generated.....being excessive..... Some individual companies have fared better and some worse, as would be expected if the industry is broadly competitive. But these variations in profit appear very much to reflect the success or otherwise of the individual companies' strategies, offering and efficiency[10].*

9. Other jurisdictions are also beginning to make use of profitability in their market investigations. For example, the Australian Consumer and Competition Commission's (ACCC) investigation into grocery retail pricing found that its analysis of trends in gross margins provided some insights into the competitive intensity of various sectors of the Australian grocery market. In the dry grocery area where the two major supermarket chains accounted for a large proportion of sales, both companies had been able to increase their gross margins over time. Conversely, gross margins in fresh produce, where the two companies account for a smaller share of sales, had declined. The ACCC concluded that the variance in gross margins across different segments of grocery retailing may suggest that there are variations in the level of competitive constraint across these segments[11].

10. The South African Competition Commission (the Commission) also undertakes market investigations similar to those undertaken in the UK and Australia[12]. The above case studies suggest that the Commission could benefit from using profitability analysis as a tool in assessing the strength of competitive forces in the markets it

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[8] For example, the CC investigation in Northern Irish Personal Banking could not conclude any firm findings from its profitability analysis as there were significant conceptual and practical difficulties in allocating the many shared costs that were attributable to the bank's personal banking business.

[9] Supermarkets: A report on the supply of groceries from multiple stores in the United Kingdom [2000]

10 Ibid – at paragraph 2.154

11 Report of the ACCC inquiry into the competitiveness of retail prices for standard groceries [July 2008], Chapter 6

12 Section 21 of the South African Competition Act gives the Competition Commission the responsibility and the function, among others, to implement measures to increase market transparency and to enquire into and report to the Minister of Trade and Industry on any matter concerning the purposes of the Act.

investigates. Indeed, the Commission, in its enquiry in South African banking[13], sought to establish the relationship between charges for retail banking services and the costs of providing those services in order to determine the degree to which competitive forces were driving prices down to the level of costs[14]. Due to the nature of shared costs within banks (as noted in the CC's Northern Ireland banking inquiry – discussed below), the Commission was unable to undertake a detailed profitability assessment for each of the individual banking products. However, the Commission noted that:

> *"...the fact that the banks had not had any reference to the unit costs of transactions in the setting of prices suggests that they are sheltered from effective competitive pressure. Under effective competition the banks would need to know what these costs are in order (at the very least) to determine whether internal resources are being allocated efficiently"*.[15]

11. Profitability analysis can also be an important tool for the Commission in its investigations into allegations of excessive pricing. In fact, the Competition Appeals Court (CAC) has found[16] that section 8(a) of the Competition Act (dealing with excessive pricing) requires various steps for an adverse finding, including, comparing the prices charged to the economic value of the good or service, and determining that the prices are in excess of the economic value and are unreasonable and to the detriment of consumers[17]. This approach is wholly consistent with the methodology used by the CC, namely that operating profits (revenues less operating costs) are compared to an established benchmark (such as WACC) to determine their reasonableness. Accordingly, both the Commission and the CAT should be able to apply the CC's approach to measuring economic profits to its own investigations into excess pricing and for market studies generally.

12. Given the potential for this type of analysis, it is worth reviewing some of the important features of the economic profits calculation.

Methodology used for profitability analysis

13. The approach adopted by the CC for profitability analysis has been somewhat consistent over the past 10 years. Most market investigations have tended to adopt a return on capital approach, where operating profits (i.e. before financing costs[18]) are divided by either net operating assets (RONOA) or capital employed (ROCE). In some cases the CC has included an analysis of gross or operating margins[19] for

13 Competition Commission South Africa enquiry into competition in banking technical report [December 2008]
14 lbid – see section 3.7
15 lbid – see section 3.8
16 Competition Appeal Court of South Africa, Mittal Steel South Africa, Macsteel international, Macsteel holding and Harmony Gold Mining Company, Durban Roodepoort Deep and, Case no: 70/CAC/Apr07
17 lbid – see paragraph 32
18 However, when the CC has investigated financial services markets (such as SME banking) interest costs are treated as an operating item and thus included in the calculation of operating profit.
19 Gross profit or operating profit divided by net revenue

added robustness as the asset or capital base could not be measured with a high degree of certainty[20].

14. The CC has relied largely on accounting data contained in companies' annual accounts, although it has often made adjustments to take account of cost inefficiencies and certain classes of intangible assets that are not recorded on companies balance sheets. As discussed below, these adjustments were required to deal with some of the shortcomings of accounting data, and to ensure that a proper assessment of economic profitability was made.

15. In recent years, the CC's approach has been largely influenced by an OXERA report prepared for the OFT (OFT discussion paper), which deals extensively with the appropriate techniques for measuring economic profits[21]. The discussion paper addresses, inter alia, three important considerations; the appropriate profit measures to use, how to value the asset base and how to interpret results of the analysis.

Appropriate profit measures

16. Although the CC has regularly used the return on capital approach to measuring profitability (RONOA or ROCE), the OFT discussion paper states that the Internal Rate of Return (IRR) and Net Present Value (NPV) are conceptually the correct methods for measuring profitability[22]. This is because these measures take into account the cash inflows and outflows of a business activity (rather than accounting revenues and costs, which include accruals and non-cash items). As these measures apply discounting to the cash flows, it also incorporates the economic concept of the time value of money. In addition, these two measures are the two most frequently used in the business world, and are most likely to be familiar to the firms being investigated by competition authorities.

17. Under certain circumstances the IRR and ROCE will derive similar results[23]. However, the OFT discussion paper argues that the application of the ROCE can lead to misleading results, particularly if adjustments are not made to large non-cash items such as depreciation, or if accruals account for a significant portion of total costs. Changes to accounting policies can create large variations in the depreciation schedules from one year to the next, and therefore, create large variations to the numerator of the ROCE calculation that have little to do with the underlying performance of the firm. Because the IRR measure uses cash flow rather than profit data, it is not influenced by changes in the treatment in non-cash items and accruals.

18. Another problem with the ROCE measure is that it requires accurate asset valuations for each year of the period subject to the profitability assessment, whereas the IRR only requires asset values for the opening and closing years of the period. As discussed in the next section, the valuation of the asset base can be a difficult

20 For example, see Classified Directory Advertising Services market investigation [2006]
21 Assessing profitability in competition policy analysis, Economic Discussion Paper 6 [2003]
22 Ibid – see paragraph 1.13. The IRR represents the discount rate required to makes the NPV of a series of cash flows equal to zero. The NPV is the cumulative sum of a series of discounted cash flows.
23 Ibid – see paragraph 1.31

exercise, particularly if a large portion of a company's assets are reported on a historical cost basis and if certain classes of intangible assets are not reported as all.

19. In most cases it is not possible to calculate a full (or 'lifetime') IRR as not all cash flows from the inception of the business are known. Accordingly, the CC has often calculated a 'truncated' IRR, which involves calculating cash flows for the period of the competition assessment (usually about five years) and assuming asset values for the opening and closing years of the period. The truncated IRR is the discount rate at which the present value of the period cash flows, plus the discounted value of the closing asset value, equals the opening asset value. The longer the truncated period, the more the IRR is affected by the actual cash flows and less so by the opening and closing asset values.

Valuation of assets

20. Determining the appropriate denominator value in the ROCE calculation is usually the most contentious area in profitability assessments. Companies that are subject to a market investigation will obviously have an incentive to inflate asset values in order to reduce calculated returns.

21. For the purposes of measuring economic profits, the relevant valuation basis is depreciated replacement cost, or more specifically modern equivalent asset value, which is the cost of replacing existing assets with new assets that have the same service potential and is adjusted to take account of obsolescence. The primary reason for using replacement cost is that this represents the level of investment that an entrant would need to incur, and excess profits calculated using this valuation should be competed away over time. Persistent excess profits would therefore indicate the existence of entry barriers and market power by existing companies. This conclusion could not be made if the profitability analysis was carried out using historical cost values.

22. Firms are reluctant to remain in a market if returns derived over a period of time are insufficient to cover the replacement costs of their assets. According to the value of the owner principle[24], firms are likely to realise more value from selling their assets under these circumstances than from their continual use[25]. Therefore, it would make sense for a rational firm to set prices according to replacement cost even in markets that are highly competitive. Moreover, utility regulators typically adopt replacement cost as the valuation method for tariff setting purposes[26].

23. The difficulty that arises for competition authorities and utility regulators is how to obtain estimates of replacement cost, given that most companies report their fixed assets on a historical cost basis. Where there has been significant price inflation for a particular type of asset and where assets have been acquired many years prior, the

[24] See paragraphs 4.12 to 4.22 of OFT discussion paper

25 Assuming net realisable value equates to depreciated replacement cost

26 For example, the Electricity Pricing Policy of South Africa [2008] requires that the Energy Regulator, after consultation with stakeholders, must adopt an asset valuation methodology that accurately reflects the replacement value of assets.

replacement cost value may be markedly higher than the reported historical cost value.

24. There are several methods for estimating replacement cost (outlined in the OFT discussion paper[27]) in such circumstances. Firstly, the historical cost value can be adjusted to take into account the effect of asset price changes, i.e. movements in the construction price index, for each year of the profitability analysis (indexed historical cost). This is the simplest method as data on annual price movements are readily available, however, the price indices used might not reflect the real changes in asset costs over time.

25. Another method involves applying the ratio of market to book values of comparator companies (i.e. operating in sufficiently similar industries) to the book value of assets of the company under investigation. The limitation to this approach is that it assumes comparator companies are operating in competitive markets. To the extent that the comparator companies possess market power, the use of their market values may over-estimate the replacement cost of the company under investigation.

26. A third method involves undertaking a detailed bottom-up cost modelling exercise, which requires an assessment of the assets needed for each of the activities undertaken by the company and obtaining updated cost estimates for each of those assets (bottom-up cost modelling). This is likely to be a costly and time consuming exercise, and this approach has not been used by the CC in recent years.

27. Another difficulty that often arises is the measurement of intangible assets, i.e. non-physical items such as customer relationships and brand names. The values of these items are often not recorded in company balance sheets as they are built up over many years (rather than acquired by a single transaction), usually at substantial cumulative cost. The CC typically calculates returns for a finite period (usually five years) and the period usually excludes those years where much of expenditure on intangible assets were incurred. Accordingly, the CC makes adjustments to the asset base to take account of the value of intangible assets that were built up in previous years. Exclusion of these items from the asset base would overestimate the ROCE and truncated IRR significantly.

28. The issue of intangible asset measurement arose in the investigation into classified directory advertising services (CDAS)[28], where the CC's profitability analysis involved calculating returns for the two largest classified directory companies (namely Yell and Thomson). Most of the value of these companies was made up of intangible assets (i.e. the customer base) which for most years were not recorded in each of the companies' balance sheets. Calculating a ROCE or truncated IRR based on recorded tangible assets would have overstated returns. Therefore, the CC calculated proxy values for these intangible assets using purchase multiples derived from market transactions (i.e. acquisitions of other classified directory businesses) in

27 See paragraphs 5.13 to 5.18

28 Classified Directory Advertising Services market investigation [2006]

the sector. This approach was akin to the market based approach of estimating replacement cost of assets mentioned above. However, there was a risk that valuing intangible assets in this way would have captured the capitalised value of future monopoly profits that may have been included in the market values of other CDAS companies. This would have overstated the replacement cost value of the asset base and hence under-estimated the calculated ROCE or truncated-IRR. This risk was highlighted in the CDAS report:

> "..a return on assets (i.e. either ROCE or IRR), when those assets are valued in a way that would capitalise any future excess profits accruing from the exercise of market power, is not a useful indicator of whether or not there are any such excess profits and, hence, whether market power exists".[29]

29. The CC stated that its preference was to value intangible assets on a cost-based approach, which would have involved an assessment of the relevant expenditure which built up those assets. Given that such expenditure was difficult to identify, it adopted a modified version of the market based approach.

30. The cost based approach was applied by OFCOM in its profitability analysis of BSkyB[30], a pay TV company that also had most of its value attributed to unreported intangible assets, namely its subscriber base. OFCOM developed a subscriber acquisition model which, in simple terms, estimated the average cost of acquiring a new subscriber (based largely on marketing costs) for each year and applied these estimates to the total number of BSkyB subscribers for each year. In this way, OFCOM argued that:

> "...valuation of intangible assets based on the costs of creating those assets avoids the potential for capitalisation of value derived from market power."[31]

31. The above illustrates the difficulty in calculating robust estimates of asset values, particularly for intangibles. However, they provide strong support for using a depreciated replacement cost as a basis for valuing both tangible and intangible assets in market and excessive pricing investigations.

Other measurement issues

32. There are other measurement issues that also require consideration in an analysis of profitability. As stated earlier, persistent excessive profits are indicative of market power. However, market power may also be reflected in operating costs that are high compared to the level of costs incurred in competitive markets. Therefore, any attempt to calculate economic profits should first establish an efficient level of operating costs to be included in the ROCE and IRR calculation, as using actual operating costs may underestimate returns. The CC guidelines state that:

29 Ibid – see paragraph 7.32
30 Assessment of Sky's profitability and cost of capital – Annex 9 to Pay TV Statement [2010]
31 Ibid – see paragraph 3.3.3

"Low profits....may conceal ineffective competition if firms with market power are able to operate with high costs than would be sustainable with keener rivalry in the market. Therefore the Commission may also look at data on costs and compare actual costs with efficient costs in addition to looking at profits".[32]

33. In the investigation into the supply of banking services to SMEs, the CC observed the cost to income ratios of all the major clearing banks, and found that some banks were relatively inefficient when measured against the average cost levels. It subsequently made downward adjustments to the operating costs of the least efficient bank, reducing their costs to 62.5% of income in the first year of the analysis, falling to 57.5% in the final year.[33]

34. Cost allocation has also been a major issue in some investigations, as the CC is usually concerned about a subset of products rather than a company's whole range of products. A profitability assessment carried out for a sole product or service can be difficult if the relevant company publishes or records cost information on a consolidated basis. For companies that have a high degree of shared costs across multiple product lines, the costing of individual products or services would be almost impossible. This was evident in the Commission's investigation into South African banking mentioned above, and also in the CC's investigation into the personal current account (PCAs) market in Northern Ireland[34]. The CC concluded:

"...given the interdependency of PCAs and other banking products, and the practical difficulties in identifying appropriate and accurate bases for cost and capital allocations, we are unable to measure profitability with a sufficient degree of accuracy and hence were unable to conclude as to whether the banks are making returns in excess of their cost of capital for their PCA businesses".

35. This suggests that in some circumstances, a detailed profitability analysis is not possible, particularly if most of the costs incurred and assets used by a product or service under investigation are shared with other products or services. There are various approaches to cost allocation that can be used in situations where the level of shared costs is minor relative to total costs. The OFT discussion paper highlights these methods based on three types of cost drivers;

- Input based cost drivers - where shared costs are allocated based on direct inputs such as labour employed, raw materials and floor space used.
- Output based cost drivers - where shared costs are allocated using outputs such as revenue or sales volumes
- Value based cost drivers - where shared costs are allocated based on demand factors such as consumers willingness to pay

32 Market Investigation References: Competition Commission Guidelines [2003], paragraph 3.83
33 Ibid – see paragraph 2.397
34 Personal current account banking services in Northern Ireland market investigation [2007]

36. The OFT paper also notes that for competition analysis purposes, input based cost drivers are preferable to output or value based approaches, as it avoids circularity problems. For example, if revenue or prices are used as a basis of allocation, then excessive prices may be disguised because more shared costs are allocated to those products that have the highest prices and share of revenue.

37. Another issue, which potentially can affect the results of any profitability analysis is the time period chosen. In most cases the CC are concerned with assessing prices or returns over a limited period, usually about 5 years. It may be possible that returns could be over or understated due to the profile of depreciate asset values. For example, a five year ROCE or IRR analysis carried out in a period where the underlying assets are at the end of their useful lives would show a rather flattering view of returns that are available, on average, over the full life of the assets.

38. In some cases, it may not be clear whether excessive profits within a five year period are due to market power or to a macroeconomic upturn, which may have increased profitability substantially for all companies within that market. A profitability analysis that incorporates a full business cycle and the full life of the underlying assets would be more robust than a relatively short truncated analysis. This point is made in the OFT discussion paper:

> *"...the robustness of the results is influenced by the length of the period considered, with a rule of thumb that the longer the period, the better. For the truncated IRR and NPV, this is because a longer period means that the calculation is less sensitive to the valuation of the opening and closing assets"*[35].

Interpretation of returns

39. ROCE and IRR figures on their own are insufficient to make a finding of excessive profits. Profit measures need to be compared to a benchmark to determine whether they are 'normal' or within a reasonable range that is expected in a competitive market. The cost of capital[36] of the company under investigation is a useful benchmark and is normally used by the CC in market investigations and by utility regulators for tariff setting. The ROCE and IRR can also be compared to the ROCE and IRR of appropriate comparator companies, i.e. those that operate in more competitive markets. This latter approach provides a cross check to the WACC comparison and can show whether returns in the market have been affected by strong economic conditions.

40. For a finding of excessive profits, the ROCE and IRR should be substantially above the cost of capital over a prolonged period of time. This is in line with the CC

35 See paragraph 8.10

36 This is usually expressed as the weighted average cost of capital (WACC) which incorporates both the cost of debt and equity.

guidelines[37]. As yet, there is no established or authoritative gap (between returns and cost of capital) figure that automatically gives rise to a finding of excess profits. However, recent market studies have concluded that a profitability gap of about 10% is 'significant' and can be used as evidence that returns are above competitive levels:

- In its assessment of Sky's profitability, OFCOM determined that the profitability gap (IRR and ROCE in excess of WACC) of around 9% for Sky was "significant"

- The CC inquiry into the supply of banking services to SMEs found that a profitability gap of 9%, 10% and 12% in 1998, 1999 and 2000 respectively for the four largest clearing groups was considered to indicate excessive profitability

- The CC CDAS inquiry found that Yell's profitability gap was between -2% and 12% based on a comparison of truncated IRRs and ROCEs to WACC, and therefore determined Yell's profits to be "high" over the five years to 31 March 2006.

41. Profits significantly above the WACC should not automatically lead to a conclusion that prices are excessive, as there can be other factors that lead to high profits. As the CC guidelines states:

> *"...the profits of some firms may exceed what might be termed the 'normal' level. Reasons for this could include, for instance, cyclical factors, transitory price or other initiatives, the fact that some firms may be more efficient than others and, the fact that some firms may be earning profits gained as a result of past innovations."*

42. The existence of these other factors could give rise to a company deriving returns well above its cost of capital for a period of time and still pricing at competitive levels. Accordingly, it is necessary for any profitability analysis to include an assessment of whether a company under investigation is benefiting from a unique cost advantage (e.g. access to low-cost raw materials) or is deriving incremental revenue from a new or innovative product or service. Any such benefits should be excluded, so that the calculated returns are reflecting only the degree to which a company is exercising market power. This approach is supported by the CAC Mittal judgement:

> *"Thus economic 'value' is a notional objective competitive market standard, and not one derived from circumstances peculiar to the particular firm..... It would seem sound, when considering whether the higher price bears a reasonable relation to economic value or not, to take into account the benefits flowing to the firm from the subsidised loan, long-term low rental, or other*

37 See paragraph 3.82 which states: "...a situation where, persistently, profits are substantially in excess of the cost of capital for firms that represent a substantial part of the market could be an indication of limitations of the competitive process".

special advantage which may serve to reduce its own long-run average costs below the notional norm"[38]

43. In some CC investigations, firms have argued that innovation has accounted for much of their high profits. For example, in the CDAS inquiry, the incumbent operator (Yell) argued that incremental revenue from colour advertising was the major driver of its high profits rather than any exercise of market power. However, the CC considered that innovation reflects the creation of new products or services which gives a company an advantage over its competitors. Given that Yell was not the first company in the UK market to introduce colour advertising, the CC concluded that the incremental revenues derived from colour was not a result of innovation but, rather, it reflected Yell's ability to extract a price premium from its customers, which was further indicative of its market power[39].

44. Another factor for competition authorities to consider is the potential impact of survivor bias. In other words, when less successful firms exit a market, the remaining firms are likely to pick up volumes and sales from existing firms. This may increase the surviving firms' ROCE or IRR above the WACC for a period of time until new firms enter the market, an outcome consistent with competitive markets. This reinforces the need for competition authorities to investigate profitability over a sufficiently long period.

45. As mentioned above, the CC, in most cases, has used profitability as evidence of the existence of market power. In some cases it has used the same profitability analysis to quantify the extent to which a company has been pricing excessively. In the supply of banking services to SMEs, the CC concluded that:

> *"...the level of excess profits we have identified is itself a measure of the extent to which prices are in excess of those necessary adequately to finance an efficient SME banking business".*[40]

46. Also, in its investigation into extended warrantees[41], the CC concluded that prices would have been up to one-third lower if profits of the five largest retailers in the market had been in line with the their cost of capital. It is important to note that the CC had made these judgements after consideration of other factors and evidence that supported its assessment on market power and pricing levels, such as market shares, entry barriers and price comparisons. The CC's guidelines[42] state that a conclusion on the extent of competition in a market should be made using a number of indicators, including price movements over time and price comparisons with other companies. Accordingly, drawing conclusions on the excessiveness of prices using profitability alone would not be appropriate.

38 See paragraph 43
39 See paragraph 52
40 See paragraph 2.431
41 A report on the supply of extended warranties on domestic electrical goods within the UK [2003], paragraph 2.359
42 See paragraph 3.78 to 3.90 `

Conclusions

47. The use of profitability analysis has been an important aspect of the CC's market investigations for some time, particularly in the assessment of market power. It has also been helpful in establishing the extent to which prices are excessive. Although there is limited evidence of its extensive use in other jurisdictions, there is no reason why the South African competition authorities cannot apply profitability analysis for its own market studies, and for investigations of alleged conduct under section 8(a) of the Competition Act.

48. There are many methodological issues that must be considered before undertaking a detailed analysis of returns, including the use of the appropriate profit measures and the correct asset valuation and cost allocation approaches. Competition authorities need to account for cyclical and macroeconomic factors, as well as any unique cost advantages or rewards for past innovation that can affect returns. In addition, a sufficiently long period must be analysed to ensure that the results are not materially affected by survival bias or by the depreciated profile of assets.

49. Care must be taken not to rely too much on profitability analysis and drawing conclusions from it alone. It should be seen as one piece of evidence of market power and pricing, to be used along-side assessments of other economic indicators and features, such as market shares and entry barriers.

References

1. ACCC inquiry into the competitiveness of retail prices for standard groceries (2008)

2. Competition Commission, Supermarkets: A report on the Supply of Groceries from Multiple Stores in the United Kingdom (2000)

3. Competition Commission, The Supply of Banking Services by Clearing Banks to Small and Medium-sized Enterprises within the UK (2002)

4. Competition Commission, Market Investigation References: Competition Commission Guidelines (2003)

5. Competition Commission, A report on the supply of extended warranties on domestic electrical goods within the UK (2003)

6. Competition Commission, Classified Directory Advertising Services market investigation (2006)

7. Competition Commission, Store Credit Card Services Market Investigation (2006)

8. Competition Commission, Home Credit Market Investigation (2006)

9. Competition Commission, Personal current account banking services in Northern Ireland market investigation (2007)

10. OFT, Assessment of Market Power – Understanding Company Law, (2004).

11. OXERA, Assessing profitability in competition policy analysis - A Report prepared for the Office of Fair Trading, Economic Discussion Paper 6, (2003)