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Excessive prices and profitability

What is a fair profit?

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Often, observers such as politicians, consumer groups and the media state that a particular firm or sector is earning "too much" profit, based on readily available reported financial statements. However, accounting measures of profitability do not capture all of the relevant economic costs faced by a business and, as we discuss in this article, further robust economic analysis later reveals these perceptions of "too much" profit to be ill-founded.

Nevertheless, these observers, along with other factors, may act as a catalyst for a competition authority to investigate the market in question to see whether incumbent firms are abusing a dominant position to the detriment of consumers.

The definition of a dominant firm was first established in the *Hoffmann-La Roche* case as one that has "the power to behave to an appreciable extent independently of its competitors, its customers and ultimately of the consumers". Economic theory says that, if a firm has market power, one way it can abuse this dominance is to raise prices above the level that would prevail in a competitive market in order to earn "supernormal" profits.

Although the European Commission has made a number of high-profile findings of abuse of dominance by firms under article 102 in recent years, such as the 561m fine imposed on Microsoft in 2013, none of the major cases has related to excessive pricing. The article cites the imposition of "unfair" prices as an example of potentially abusive conduct. However, given that none of the major cases has related to excessive pricing, does this mean that dominant firms are not charging prices higher than those that would arise in a competitive market?

In some sectors, such as the privatised utilities, regulators constrain the pricing of dominant firms on an ex ante basis, which is designed to prevent the pricing abuses that could otherwise occur. However, in the absence of such regulation, observers are concerned that "dominant" firms can earn profits that are higher than those that would arise in a competitive market.

In our view, there are many theoretical and practical hurdles that must be overcome in order to produce quantitative analysis that is sufficiently robust to support a finding of excessive pricing. Based on our recent experience, we explore some of these hurdles and consider what this implies for the investigation of excessive pricing.

How can you tell if prices are "excessive"?

Article 102 – implemented as Chapter 2 of the Competition Act 1998 in the UK – is silent as to when prices may be considered "unfair" or how unfair prices should be identified. Instead, guidance arises from case law and specific guidance issued and decisions made by the European Commission and national competition authorities.

This guidance establishes a precedent of assessing whether prices are excessive by reference to an assessment of economic profitability and a comparison of this profitability to an appropriate benchmark. In the 1978 *United Brands* case, the Court of Justice of the European Union found that "charging a price which is excessive because it has no reasonable relation to the economic value of the product supplied… would be… an abuse". Guidance from the Office of Fair Trading (now part of the Competition and Markets Authority (CMA)) suggests that a number of benchmarks may be relevant to assessing whether pricing is excessive, including profitability.

In the UK, assessing whether pricing is excessive also falls within the CMA's market investigation powers under the 2002 Enterprise Act. Under this Act, the CMA has a duty to identify "whether any feature, or combination of features, of each relevant market prevents, restricts or distorts competition". In its guidelines for the conduct of market investigations, the CMA states that the analysis of profitability provides evidence on "the question of whether prices are above competitive levels".

In the recent private healthcare market investigation, the CMA supported its finding that prices had been excessive in this way by reference to its analysis of profitability. It explained in its final report that "our finding of excess profitability suggests that the price of private healthcare services may be high in relation to the costs incurred by private hospital operators in providing those services, and thus higher than we would expect to find in a competitive market".

In the example above, the CMA had regard for economic profitability rather than reported accounting profits, which is consistent with our experience on other excessive pricing cases. As such, a number of adjustments to accounting profit were required.

Because no two markets are alike, absolute levels of profitability that may be indicative of excessive prices in one market may not have the same interpretation in another. This means that, when investigating excessive prices, a detailed analysis of profitability in each particular case is required, taking into account the specific nature of the business and market conditions over time. Results must be interpreted with care.

The right framework for measuring profitability

Having decided to assess levels of profitability to determine any indication of excessive pricing, the authority must select an appropriate framework for its calculation. Typically, the framework is based on the profits that a hypothetical entrant could earn under the prevailing market conditions.

When making investment decisions, firms generally look for investments that are expected to return a positive net present value. The minimum economic rate of return on an investment that an investor will therefore fund is the discount rate at which the net present value of all its future cash flows is zero; this is what is commonly known as the internal rate of return (IRR).

In reality, it is rarely practical for an authority to gather evidence of all relevant cash flows over the lifetime of an investment. The period of investigation may therefore be limited by the availability of relevant accounting and other data. Furthermore, competitive conditions change over time and investigations usually focus on whether prices have been excessive over a particular period. Therefore, the analysis of profitability is often conducted over a shorter period than the lifetime of the investments.

As a result, in profitability analysis, the return on capital employed (ROCE) measure is often preferred over the IRR. A ROCE expresses (adjusted economic) profits as a percentage of the economic value of the assets used to generate them. The main adjustments required to calculate ROCE relate to the valuation of these assets. In addition, competition authorities will consider the level of costs incurred in the relevant segment or product, having regard for issues such as efficiency and an appropriate allocation of costs. The ROCE is typically compared to a calculated industry weighted average cost of capital (WACC). In doing so, it is important that any observed gap between the ROCE and WACC is interpreted carefully.

However, the ROCE model does not work particularly well for "asset-light" businesses – ie those that do not have a large tangible asset base, or have very large and potentially fluctuating working capital balances, such as retail businesses. In these cases, it may be necessary to use other measures for the required return on capital such as return on sales (eg EBIT margins). Similarly to ROCE analysis, margins should be compared to a benchmark. The need to derive an appropriate benchmark and the issues with determining an appropriate level are obvious.

Where there are arguments for adopting different approaches to profitability, one should consider the results of each approach. If these different approaches yield similar results, then one can be more confident in their conclusions.

Converting accounting values into economic values

Converting accounting values into economic values is important because it provides a basis to measure the return that a hypothetical entrant could have earned at the prevailing price level. It thus provides a fair basis for comparison of different firms' returns over time against a competitive benchmark. However, this is rarely straightforward. Although some firms (such as regulated utilities) are required to prepare regulatory accounts on a "current cost" basis, most other businesses use the accountant's typical approach of historical cost. As a result, significant adjustments are required to convert accounting values and measures of cost into economic equivalents. The precise nature of the adjustments required will vary from case to case, but it is usually a time and resource intensive exercise. Here, we briefly discuss some adjustments that in our experience are usually required in a ROCE assessment.

Modern equivalent asset (MEA)

The aim is to restate the tangible assets of the firm from an historical cost to a current "replacement" cost. Such an exercise is complicated by the problem that market-based evidence of the value of these assets may be argued to include the value of any excess profits that these assets earn. Therefore, a usual approach is to identify the cost of purchasing or constructing a "modern equivalent" of the asset and then applying economic depreciation to take account of the proportion of the asset's economic value that has been consumed prior to the period of analysis. This approach is subject to a large number of assumptions.

In industries with long life assets, the difference between the economic values of capital assets and their book values may be very large. This was the case, for example, in the CMA's investigation into aggregates, cement and ready-mix concrete. This industry had a small number of very large processing plants which would be very expensive to construct at today's prices but which had been almost fully depreciated in the accounts, although they still had substantial operational life remaining. To assess the economic values of the plants, the CMA had to commission independent advice about the nature and costs of a new cement works in Great Britain from a consultancy with expertise in the area. Often, there are not good proxies available for the value of a "modern equivalent" asset, in which case a range of indicators of value should be considered.

Intangible assets

Businesses with a significant proportion of intangible assets (eg customer lists, trademarks and a trained workforce) may face a particular challenge to evidence the value of intangible assets in which they have invested. Often, such assets do not meet the accounting standards criteria for recognition, so firms may have expensed the costs associated with creating them prior to the period under investigation and have no starting point for assessing their value. Determining an appropriate MEA value for these assets can be extremely difficult and this is one of the problems inherent in making a robust profitability assessment. Failure to include an appropriate value will lead to ROCE being understated.

In both the movies on pay-TV market investigation and the payday lending market investigation, the CMA accepted only some of the intangible assets that firms considered formed part of their capital employed and rejected others.

Efficiency: a spanner in the works

Authorities have also considered whether competition concerns exist even if, on the face of it, profits do not appear to be excessive. The premise is that firms that are able to charge excessive prices may not face sufficient competition to ensure that they keep their costs low and efficient. Authorities have therefore sometimes sought to adjust costs to what they assess to be an "efficient" level and then recalculate profitability.

Assessing the relative efficiency of a firm is a complex exercise. Although there is much precedent for cost benchmarking in the regulated industries, most other businesses do not have an established cost-benchmarking approach. It is often a significant undertaking to conduct a sufficiently robust analysis of costs to be able to reach a conclusion on what the efficient level of costs would have been; a simple adjustment of cost levels to match those of the most efficient market participant would not be appropriate. Therefore, a detailed and considered analysis is required.

Cost allocation across business segments or products

It is often the case that the competition concern relates only to a particular segment of a firm's operations, or to specific products.

Typically, firms do not prepare accounts on a fully-allocated cost basis at the level of disaggregation that is of interest in the competition case. Instead, they may, for example, calculate a "contribution" or gross margin for each product or segment, which excludes overheads and other shared costs. As such, it is often necessary to allocate shared or common costs to assess the profitability of the relevant product or segment. Even where firms do undertake such an allocation, a robust assessment of that allocation is required.

The costs of an individual segment or product can either be calculated on a bottom-up basis (where a calculation of all relevant costs is made on a line-by-line basis) or on a top-down basis, where the entire costs of the firm are allocated across all services, including the service under investigation. Both approaches have advantages and disadvantages. It may be a substantial exercise to ensure that all relevant costs have been considered in the analysis.

Cost allocation in multiproduct firms can be very complicated. While there may be a logical basis for the allocation of some categories of shared costs, for others there may be more than one plausible allocation. Caution is required as different methods may generate very different results.

The benchmark: what would be the return in a competitive market?

If a robust estimate of the level of profitability can be established, a benchmark level of profitability that could be expected in a competitive market is then required against which to compare it.

ROCE benchmark: Profit as a cost

There is a widely accepted framework for estimating the benchmark against which to compare ROCE (and IRR) estimates of profitability: the WACC. Although other approaches exist, there is only significant precedent for the use of the capital asset pricing model (CAPM). Although applying the CAPM is computationally reasonably straightforward, there is considerable debate among both academics and practitioners regarding the approach to estimating the inputs into the calculation. It is often necessary to apply a range of assumptions for the different input variables, resulting in a range of values, rather than a point estimate, against which to assess profitability.

Benchmarks for other measures of profitability

There is not such an established framework for identifying a competitive benchmark level of profitability calculated using other approaches, such as margin analysis. Typically, similar businesses operating in a competitive market would provide a suitable benchmark. However, there may be widely differing views of which firms are comparable and there is no systematic basis for adjusting for operational differences between firms.

A matter of interpretation

Even if profitability can be robustly estimated and a competitive benchmark established, a remaining problem is that high profitability can and does occur in competitive markets and is not necessarily an indication of excessive pricing by a dominant firm. The CMA's market investigation guidelines acknowledge that higher levels of profitability may reflect cyclical factors; the transitory impacts of shocks to demand or supply; successful innovation or superior efficiency. Consequently, a finding of high profitability does not necessarily indicate a competitive concern.

It is extremely important that authorities distinguish procompetitive sources of higher than normal profitability from excessive pricing. A wrongly specified or wrongly applied test which interprets legitimate sources of higher than normal profits as evidence of shortcomings in competition, could instead itself have adverse effects on competition by removing the incentives for firms to seek competitive advantages which benefit consumers.

In an excessive pricing analysis, therefore, the authority should look at the "headroom" in the tests it has applied and use judgment to conclude whether or not the observed profitability reflects effective competition or abusive conduct. A finding of excessive prices is most likely to be made where profitability is substantially and persistently in excess of the benchmark.

In the private healthcare market investigation, the CMA made it clear that it had taken this approach: "We consider that the fact that firms that together account for between 53% and 58% of the market are making returns that are substantially and persistently in excess of the cost of capital indicates that there are some limitations in the competitive process".

Profitability analysis on its own is not enough

Courts and competition authorities will consider the pricing of a dominant firm in the round, taking into account wider evidence of its conduct to conclude whether it has had "recourse to methods different from those which condition normal competition in products or services on the basis of the transactions of commercial operators". The CMA made a similar observation in the recent payday lending market investigation, commenting: "We noted that profitability analysis in isolation may be insufficient to draw firm conclusions on the extent of competition in a market and should be considered in conjunction with other evidence on market outcomes". Therefore, profitability analysis only forms one limb of the assessments in a market investigation.

Conclusion

We have illustrated that there are many challenges that a court or competition authority must overcome to support a finding of excessive pricing based on profitability analysis. In the instance of the CMA's audit market investigation, these challenges proved so great that it finally concluded:

> "We were not able to reach a conclusion on whether audit firms were making profits above competitive levels or otherwise in this market. This was on account of difficulties in valuing capital employed; the intangible nature of the asset base in this market; difficulties in cost allocation…; and difficulties in identifying costs due to the partnership ownership structure."

There are no shortcuts in profitability analysis; a bespoke framework is needed to establish robust estimates of profitability for each new firm or sector, which will be time and resource-intensive. In our experience, it is essential to consider a number of different approaches, to weigh up all the evidence obtained and to take great care in interpreting it.

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