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LESSONS FOR FUTURE EXCESSIVE PRICING CASES FROM ECONOMICS AND THE COURT OF APPEAL JUDGMENT IN *PFIZER/FLYNN*†

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ABSTRACT

I consider the lessons that can be drawn from economics and the recent Court of Appeal (CoA) judgment in *Pfizer/Flynn* for future excessive pricing cases under TFEU Article 102. In future, defendants will ask their economic experts to develop reliable evidence under both limbs of the United Brands test. The required economic analysis will involve developing a suitable price benchmark, describing what prices would have been under 'normal and sufficiently competitive' conditions. The benchmark can be based on various types of evidence including cost-plus and/or comparator evidence. The CoA highlights that the cellophane fallacy is a legitimate concern for competition agencies. They also accept the Competition Appeal Tribunal (CAT')s conclusion that 'some' economic value might be relevant beyond the Competition and Markets Authority (CMA')s cost-plus benchmark—without being prescriptive about whether or indeed how a competition agency should further take it into account. I provide a suggestion for doing so. Finally, I note that economists consider that competitive markets can result in economically efficient market outcomes but these can be consistent with high degrees of inequality. As a result, a competitive benchmark in excessive pricing cases will necessarily involve Article 102 only taking fairness into account to a limited extent.

I. INTRODUCTION

On 10 March 2020, the Court of Appeal (CoA) released their judgment in the *Pfizer/Flynn* excessive pricing case.[1] Previously, in 2016, the Competition and Markets Authority (CMA) imposed fines of £84.2 million on Pfizer and

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† '[I]t is proper and helpful in a case such as this to look to economic literature for insight'. UK Court of Appeal in *Pfizer/Flynn*, at 101.

[1] Approved Judgment of the Court of Appeal (Civil Division), *Competition and Markets Authority v Flynn Pharma Limited, Flynn Parma (Holdings) Limited, Pfizer Inc., Pfizer Limited and the Commission of the European Union*, 10 March 2020, available at https://www.catribunal.org.uk/

£5.2 million on Flynn for abusing their dominant position in the UK market for an anti-epilepsy drug, phenytoin sodium capsules, under both the UK Chapter II prohibition and TFEU Article 102. Sold under the brand name Epanutin, the drug is an old one: it was first synthesized in 1908 and first marketed in the UK in 1938. The case involved alleged abusive pricing of the capsule form of the drug in four sizes.[2]

The parties lodged an appeal with the Competition Appeal Tribunal (CAT) in February 2017 against the decision. In June 2018, the CAT set aside the CMA's decision. The CoA granted the CMA and Flynn (in part) leave to appeal in December 2018[3] and the Commission of the European Union (Commission) intervened in the case. LJ Green and Sir Geoffrey Vos each provided written judgments as part of the CoA decision, with Sir Stephen Richards concurring and saying that '[a]lthough some of their reasons are differently expressed, I detect no difference of substance between them'.[4]

In this article, I consider the lessons that can be drawn from economics and the recent CoA judgment for future excessive pricing cases under Article 102.

First, the CoA judgment states that the 'excessive limb' and the 'unfairness limb' of the 'seminal' *United Brands* test's framework in excessive pricing cases are not two strict alternatives. In future cases, defendants will ask their economic experts to introduce reliable evidence to the record under both limbs of the *United Brands* test.

Second, the CoA judgment does not prescribe a specific type of benchmark against which to test excessiveness or unfairness. The CoA simply says that there needs to be a benchmark where the competition authority can choose among a cost-plus-based benchmark, one based on comparator prices, or some other benchmark(s) capable of providing a 'sufficient' indication that the prices charged are excessive and unfair. Competition authorities can base their assessment on either a single benchmark or multiple benchmarks. The

sites/default/files/2020-04/1275-76_Flynn_CoA_Judgment_100320.pdf. I refer to the decision as 'LJ Green' or 'Sir Geoffrey Vos' depending on the section.

[2] Decision of the Competition and Markets Authority, *Unfair pricing in respect of the supply of phenytoin sodium capsules in the UK*, 7 December 2016, available at https://assets.publishing.service.gov.uk/media/594240cfe5274a5e4e00024e/phenytoin-full-non-confidential-decision.pdf ('CMA Decision').

[3] Ruling of the Competition Appeal Tribunal (Remittal and permission to appeal), *Flynn Pharma Limited, Flynn Pharma (Holdings) Limited v Competition and Markets Authority* and *Pfizer Inc., Pfizer Limited v Competition and Markets Authority*, 25 July 2018, available at https://www.catribunal.org.uk/sites/default/files/2018-08/1275-76_Flynn_Judgment_CAT_12_250718.pdf; Competition Appeal Tribunal, Case 1275/1/12/17 case page, available at https://www.catribunal.org.uk/cases/127511217-flynn-pharma-ltd-and-flynn-pharma-holdings-ltd; Competition Appeal Tribunal, Case 1276/1/12/17 case page, available at https://www.catribunal.org.uk/cases/127611217-pfizer-inc-and-pfizer-limited.

[4] Approved Judgment of the Court of Appeal (Civil Division), *Competition and Markets Authority v Flynn Pharma Limited, Flynn Parma (Holdings) Limited, Pfizer Inc., Pfizer Limited and the Commission of the European Union*, 10 March 2020, available at https://www.catribunal.org.uk/sites/default/files/2020-04/1275-76_Flynn_CoA_Judgment_100320.pdf, at 190.

ambiguity in the term 'sufficient' will ensure significant room for debate between parties and competition authorities in future cases.

Third, I consider the CoA's treatment of economic value, given the CMA's finding of a 'substantial disparity between Pfizer's and Flynn's prices and the economic value of their products'. Significantly, the CoA disagreed with the CAT's finding that 'economic value' was a 'legal rather than an economic concept'. Instead, the CoA says that economic value is at base an economic concept and broadly refers to what a consumer is willing to pay for a good or service. In this discussion, I note that the division of the total surplus created by the trade between consumers and firms seems important to a substantive assessment of the fairness of any market price, but does not currently receive any attention. Given enough data, economists have demonstrated that the division of surplus can be estimated in practical settings to establish the share of the metaphorical economic pie going to consumers and the share going to firms. To illustrate, I provide references to the empirical economic literature showing the way total surplus is divided between consumers (consumer surplus) and firms (producer surplus) under competitive pricing. The results are highly context-specific, but the examples presented in this article find that between 54 per cent and 78 per cent of the total surplus went to consumers.

Fourth, although the CoA considers workably competitive prices as fair, economic theory—particularly the first and second fundamental theorems of welfare economics—suggests that competitive prices can be economically efficient but also that competitive market prices can be entirely consistent with considerable inequalities across consumers and hence, in that sense, potentially remain unfair. Such aspects of fairness are, by implication, not addressed under Article 102.

Finally, I note that with the benefit of hindsight many aspects of the CoA's judgment look both unsurprising and helpful for guiding analysis in future cases. I conclude that the CoA judgment does leave does leave some potentially material questions for further debate in future cases and during the remittal of *Pfizer/Flynn* back to the CMA. In particular, while the CoA accepts the CAT's conclusion that 'some' economic value might be relevant beyond the CMA's cost-plus benchmark, it did not decide the key questions of whether, or how far, a competition agency should go in that direction.

A. The *United Brands* Test

The 'seminal'[5] *United Brands* test lays out the framework in excessive pricing cases.[6] In particular, paragraph 252 of *United Brands* describes that the assessment involves the following two-step approach.

[5] LJ Green, at 56.

[6] Case 27/76, *United Brands Company and United Brands Continental BV v Commission of the European Communities* (14 February 1978), available at https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:61976CJ0027&from=EN ('United Brands'), at 248–253.

1. Excessive limb: whether the difference between the actual costs and the price charged is excessive[7].
2. Unfairness limb: if it is excessive, whether a price has been imposed which is either (i) unfair in itself or (ii) unfair when compared to competing products.[8]

The *United Brands* test, thus, describes that a price must not only be excessive but it must, following the requirement for conduct to amount to an abuse of dominance under Article 102, be unfair.

B. The Unfairness Limb Does Not Provide Two Strict Alternatives

According to the CMA's decision in *Pfizer/Flynn*, the two alternatives described in the Unfairness Limb are 'true' or 'strict' alternatives. The CMA reasoned that '[h]aving reached the conclusion that each of Pfizer's Prices and Flynn's Prices is unfair in itself, it is not necessary for the CMA to reach a conclusion as to whether those prices are also unfair when compared to

[7] More specifically, LJ Green highlights that in relation to excessiveness, the following findings of fact were set out by the CMA in their *Pfizer/Flynn* decision and were not put in issue by the CAT's Judgment: (i) 'Pfizer and Flynn charged prices that materially exceeded their costs attributable to Phenytoin Capsules plus a ROS calculated at 6%. Pfizer's average selling price ('*ASP*') exceeded Cost-Plus by an average excess of 443% across all capsule strengths..., accruing approximately £53.9 m excess profit. [(ii)] The ASP of Flynn exceeded Cost-Plus by an average of 41% (the range was between 31 and 133%) though these percentages understate the extent of the actual excess, because Flynn paid high supply prices to Pfizer thereby artificially inflating its costs. In absolute terms, Flynn earned £29.8 m in excess profit which was more than half the £53.9 m excess earned by Pfizer, despite Flynn's limited activities and risks.' (While Flynn added 'minimal risk and added no significant value to the supply chain.') (iii) The differential between the prices charged pre-September 2012 and those charged by each of Pfizer and Flynn post-September 2012 were '*dramatic*' while this did not reflect any material change in costs, risk or innovation. (iv) 'The price of Phenytoin Capsules charged by Pfizer in the UK was many multiples of its price for the same product in other Member States.' See, LJ Green, at 130–131.

[8] More specifically, LJ Green highlights that in relation to unfairness, the CMA refer to the following: '(i) [T]he disparity between the prices charged and the economic value of the Phenytoin capsules was substantial.' (ii) '[T]he differential between prices charged pre and post September 2012, with no justification in terms of cost, innovation, or additional commercial risks, was dramatic.' (iii) '[T]he high absolute returns generated for the parties were high, particularly for Flynn given that it undertook minimal risk and added no significant value to the supply chain.' (iv) '[T]here was limited competitive pressure on the parties and the relevant markets did not function in a way likely to produce a reasonable relationship between Pfizer and Flynn's price and economic value.' (v) '[T]he prices charged by Pfizer and Flynn were significantly higher than those charged by Pfizer in other Member States.' (vi) '[T]he prices charged exerted a material and detrimental effect upon the NHS, costing approximately £50 m pa with no improvement in patient care and leading to disinvestment in other medical services.' (vii) "[B]oth Pfizer and Flynn were aware that the prices charged were unacceptably high and, the reason for inserting Flynn as a '*middleman*' into the supply chain was to manage the '*reputational risk*' attaching to the significant price increases, rather than to benefit patients or add value to the NHS". See, LJ Green, at 131.

competing products'.[9] The CMA uses evidence on cost-plus when satisfying itself that prices were abusive under the 'unfair in itself' alternative and believed there was 'no additional requirement' to address evidence under the second alternative, that is, evidence from competing products.[10]

However, the CoA finds that the CMA's reading of the *United Brands* test 'is unduly rigid and literal and invests far too much significance in the disjunctive 'or' in paragraph [252]'.[11]

The CoA provides the following guidelines for future cases:

1. Competition authorities can use multiple types of evidence in appropriate cases. The CoA found that the economic literature 'supports the proposition that in an appropriate case a competition authority might use a combinatorial approach'[12] and that the case law suggests that there is no single test of unfairness, most notably, in *Attheraces*.[13] There are clear examples where the courts have supported the examination of evidence relevant to each alternative, most notably in *United Brands*[14] and *Napp*.[15]
2. Relatedly, competition authorities cannot ignore *prima facie* relevant evidence adduced by a defendant undertaking. For example, in

[9] CMA Decision, at 5.476.

[10] The CMA continued: 'However, for completeness, and because the Parties submitted representations to the CMA on the issue of whether their respective prices are unfair when compared to competing products, *the CMA has considered* whether such a comparison could be conducted. For the reasons set out below, the CMA has concluded that there are no products that would provide a "*meaningful comparison*"'. CMA Decision, at 5.478–5.479, first emphasis added. The CAT found that the CMA did not sufficiently consider the comparator evidence (LJ Green, at 43 and Sir Geoffrey Vos, at 278). The treatment of the comparator evidence is discussed further below.

[11] LJ Green, at 57.

[12] LJ Green, at 108.

[13] LJ Green, at 96–97. LJ Green refers to *Attheraces v. BHB* [2007] EWCA Civ 38, available at http://www.bailii.org/ew/cases/EWHC/Ch/2005/3015.html ('Attheraces').

[14] The CoA considered that 'the facts of *United Brands* itself are illuminating and undermine the CMA's argument.... The Commission concluded that in some Member States United Brands was charging a price which was 50% higher than in other Member states... . The Court however criticized the Commission for failing to "*take into account in its reasoning*" evidence from United Brands that its pricing in Ireland "*had produced a loss*" in four out of the five previous years.' See, LJ Green, at 68.

[15] 'In *Napp* the Tribunal [CAT] endorsed the use by the competition authority of a broad combinatorial approach which deployed a variety of different methods based upon both costs and comparables.' See, LJ Green, at 90. See also, Competition Appeal Tribunal, Case 1001/1/1/01 case page, available at https://www.catribunal.org.uk/cases/10011101-napp-pharmaceutical-holdings-limited-and-subsidiaries.The CoA considered that the 'judgment is an exemplar of a combinatorial approach. It does not though address the legal issue whether an authority must always use a combinatorial approach.' See, LJ Green, at 94.

evaluating *Scippacercola*,[16] the CoA found that '[t]he judgment is certainly inconsistent with the proposition that the Commission must always analyse more than one appropriate test. But that is not the same as saying that in an appropriate case, the Commission can ignore exculpatory evidence of another type if it is *prima facie* relevant'.[17] The CoA also cites *United Brands*, *Scandlines*,[18] and *Intel*[19] in this regard.

3. There is no requirement, however, to use a combinatorial approach. The CoA cites *Latvian Copyright*[20] to describe that a 'combinatorial approach might be good practice or might be requisite on the facts of a particular case, but that is not the same as saying that it is a universal rule of law'.[21]

Overall, LJ Green concludes that the case law suggests that '[t]here is no single method or "*way*" in which abuse might be established and competition authorities have a margin of manoeuvre or appreciation in deciding which methodology to use and which evidence to rely upon'.[22] Moreover, '[t]he guiding factor in each case is the availability and suitability of the evidence and data. Competition authorities often adopt a pick and mix or combinatorial approach to the evidence to be relied upon. There are no fixed rules, assumptions or presumptions. Everything depends upon the facts of the case'.[23] Ultimately, Sir Geoffrey Vos concludes that 'the question of whether the choice between

[16] Case C-159/08P, *Scippacercola v. Commission* (25 March 2009), available at https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:62008CO0159&from=EN ('Athens Airport').

[17] LJ Green, at 75.

[18] Case COMP/A.36.568/D3, *Scandlines Sverige AB v. Port of Helsingborg* (23 July 2004), available at https://ec.europa.eu/competition/antitrust/cases/dec_docs/36568/36568_44_4.pdf ('Scandlines'). On *Scandlines*, the CoA notes Pfizer and Flynn's position that 'the Commission did not treat the alternatives in paragraph [252] as dispositive and that it generally supports the broader position adopted by the [CAT], which the CMA conceded before the [CAT] was the proper course to adopt.' See, LJ Green, at 77. 'In particular, the CMA conceded that if a defendant undertaking adduced *prima facie* relevant evidence which was different in type to that relied upon by the CMA then the CMA was required fairly to evaluate that evidence.' The CMA withdrew that concession in front of the CoA. See, LJ Green, at 43. However, the CoA, having heard more detailed arguments on the point than the CAT, decided in effect that the CMA had been right to have made this concession at the CAT. See LJ Green, at 44, 97(viii).

[19] Case T-286/09, *Intel v Commission* (12 June 2014), available at http://curia.europa.eu/juris/celex.jsf?celex=62009TJ0286&lang1=en&type=TXT&ancre=; Case C-413/14 P, *Intel v Commission* (6 September 2017), available at http://curia.europa.eu/juris/celex.jsf?celex=62014CJ0413&lang1=fr&type=TXT&ancre=.

[20] Case C-177/16, *Autoriesbu un Komunicesanas Konsultaciju Agentura/Latvijas Autoru Apvieniba v Konkurences Padome* (14 September 2017), available at http://curia.europa.eu/juris/celex.jsf?celex=62016CJ0177&lang1=en&type=TXT&ancre= ('Latvian Copyright').

[21] LJ Green, at 86.

[22] LJ Green, at 97(iii).

[23] LJ Green, at 105.

the two limbs of the unfairness test adumbrated in United Brands is a binary one, is an academic and irrelevant one'.[24]

In short, the CMA will need to consider economic evidence submitted on behalf of parties under either alternative of the Unfairness Limb and do so fairly and objectively.

C. There is Need for a Benchmark

Part of the appeal concerned the interpretation of paragraph [249] of *United Brands*, which states that '[i]t is advisable therefore to ascertain whether the dominant undertaking has made use of the opportunities arising out of its dominant position in such a way as to reap trading benefits which it would not have reaped if there had been normal and sufficiently effective competition'.[25]

LJ Green notes that this paragraph suggests that the use of a benchmark is 'advisable' but not required.[26] And, after a review of the case law and economic literature, he finds that 'in both the law and in economics all that is required is that there be "a" benchmark or standard against which to measure excess or fairness. The need for a comparator is economically logical since the concepts of fairness, excessiveness and reasonableness are all relative concepts. They must be compared with their counterfactual e.g. unfairness, normality or unreasonableness'.[27] He concludes that in his 'view by the nature of the abuse in issue there needs to be "a" benchmark'.[28] This first conclusion seems uncontroversial.

A question in the appeal (ground 2) was whether it is necessary to use a 'hypothetical' benchmark price. The background to this question is that, in the CAT's decision, 'Pfizer and Flynn each submitted that the reference to "normal and sufficiently effective competition" in paragraph 249 of *United Brands* required the authority to determine not what a theoretically reasonable maximum price for the product would be, but rather what the actual price would have been under normal competition conditions in the real world. Thus, the CMA's repeated references to the "reasonable rate of return" for phenytoin (i.e. the "Plus" in its Cost Plus figure) were incorrect if adopting the reasonable rate led to anything other than the normal competitive price. By contrast, the CMA submitted that the Excessive Limb only required the authority to establish a material difference between price and cost: contrary to the submissions of the Appellants, there was no legal requirement to compare a hypothetical benchmark price that would have been charged had there

[24] Sir Geoffrey Vos, at 260.
[25] United Brands, at 249.
[26] LJ Green, at 67.
[27] LJ Green, at 122.
[28] LJ Green, at 125 (italics in original).

been normal and sufficiently effective competition with the price actually charged'.[29]

The CAT found that 'the Court *in United Brands*, itself, expressly refers to a comparison of production costs and prices as an example of a method of calculating an excess, not as the only or the required method. Moreover, that approach is within the overall context of establishing whether the dominant undertaking had reaped trading benefits that it would not have earned under conditions of normal and sufficiently effective competition'.[30] The CAT, therefore, agreed with Pfizer and Flynn on the point and said 'There must be a benchmark for the normal competitive price to estimate the excess under the Excessive Limb. We note that this is also the approach taken in AG Wahl's Opinion'.[31]

The CMA's, and ultimately LJ Green's, concern in the appeal is that in its decision the CAT may have effectively mandated the use of a 'hypothetical' benchmark price.[32] Specifically, he writes that 'assuming the Tribunal was mandating the use in all cases of a hypothetical benchmark price which did not include the costs of the undertaking or some other benchmark related to the undertaking, then I respectfully disagree with the Tribunal'.[33] In doing so, he notes that '[i]t is not entirely clear what the Tribunal was referring to when it used the expression "hypothetical" price. If this was intended to refer to an artificially constructed price, then I agree with the CMA and the Commission. But it might well be that the Tribunal was referring simply to the exercise of calculating a benchmark ROS [return on sales] or ROCE [return on capital employed] and/or the exercise of looking to external comparators'.[34]

While accepting that there must be a benchmark, LJ Green argues that 'nothing suggests that in every case there is a need for the creation of a hypothetical benchmark' (or artificially constructed price) and that his review of the 'OECD Paper and the literature it cites suggests that the counterfactuals of greatest practical value are often those drawn from real life, as opposed to some hypothetical model', and that 'the case law supports this conclusion'.[35] He further notes that the Commission does sometimes use hypothetical modelling to create a benchmark, referring to a part of the as-efficient-competitor test used in *Intel* as an example of just such hypothetical modelling.[36] Thus, the CoA draws the distinction between a model of competitive prices, which relies

[29] CAT, at 312.
[30] CAT, at 313.
[31] CAT, at 313.
[32] CAT, at 292–301. LJ Green highlights the CAT's use of the word 'hypothetical' at paragraphs 294(11), 312, 313 and 316 of its judgment, at 118.
[33] LJ Green, at 125.
[34] LJ Green, at 120.
[35] LJ Green, at 121.
[36] LJ Green, at 121.

on an 'artificially constructed price' benchmark, and a competitive benchmark, which is based on real life.

One potential interpretation of the distinction is that the real-life benchmark is based directly on observed cost or price data rather than a hypothesized economic model. However, such a distinction between a hypothetical price benchmark and a price benchmark may prove controversial among economists unless the distinction is drawn with considerable care.

First, I note that the CAT has in mind constructing (or otherwise developing an understanding of) a counterfactual 'but-for' price. For example, the first reference given by the CoA[37] to the CAT's use of the term 'hypothetical' is to a location in the judgment where the CAT describes AG Wahl's 'authoritative review of the relevant jurisprudence' which it considers supports *inter alia* propositions including that '... the method(s) applied and the other indicator(s) examined must give the authority a sufficiently complete and reliable set of elements which point in one and the same direction: the existence of a significant and persistent difference between the (hypothetical) benchmark price and the (actual) price charged by the dominant undertaking in question...'.[38] Developing an understanding of the benchmark competitive price necessarily involves an element of the hypothetical—in the sense of counterfactual.

Second, the CoA is clearly right to suggest from the case law that it has not always proven necessary to construct a theoretical (or indeed an econometric) model to estimate the benchmark price. Instead, the case law has found that it is sometimes possible to construct the relevant benchmark using data on comparator prices, or costs and a suitable 'plus'. However, economists would say that even when there is no economic or econometric model being estimated, there must still at least implicitly be an economic model in the mind of the decision-maker underlying an assessment. The reason is simply that there must be some connection between the data observed (the benchmark) and the quantum of interest—the competitive benchmark price being estimated. Moreover, economists would say that such an implicit economic model may—or may not—be a reasonable one.

To illustrate: suppose the CMA investigated potentially infringing conduct by a dominant firm in the UK by comparing the factual UK price to a counterfactual benchmark price, say, the price of the same product in Germany. The CMA's implicit model would be that prices observed in Germany provided a reasonable estimate of what competitive prices in the UK would have been absent the conduct. Noting that econometricians use 'hats' to denote estimates, in econometric notation: $\hat{price}^{UK}_{Competitive} = price^{Germany}$. There are no unknown parameters to estimate in this model—it relies only on real-world data—but it does nonetheless involve hypothesizing a model

[37] LJ Green, at 118.
[38] CAT, at 294(11).

for a sensible estimate of (a proxy for) competitive prices in the UK. If some less direct relationship was expected between the price in Germany (the data) and competitive prices in the UK (the quantum of interest), a competition authority would still presumably need to describe at least qualitatively what it believed that relationship was.

In evaluating the CoA's decision in this respect, it is important to remember that the CoA is only objecting to the CAT's decision to the extent that the CAT actually did mean to 'mandate' the use of an 'artificially constructed' or hypothetical price. As economists, we can agree with the CoA's position to the extent that it could potentially be the case that one or more data only approaches might provide the most informative benchmark for competitive prices.

Since the CoA does consider that a price benchmark is required, for both the courts and for expert economists, the relevant question is when will a model of benchmark prices based on data alone provide the most relevant and reliable benchmark available for competitive prices. In this respect, I note in particular that the economic literature supports aspects of the CAT's conclusion that 'prices across different EU Member States should not be compared without taking account of other relevant factors such as that those prices may be kept low by governmental measures, or different economic or regulatory conditions'.[39] Put differently, continuing our illustrative example, economists would consider that prices charged in Germany would ordinarily provide an unbiased estimate of (or bound on) competitive prices in the UK only under some significant assumptions. In particular, under the assumption that it is not necessary to control for, for example, relevant demand or supply factors (including differences in regulations) that would have differential effects on competitive prices in the UK and Germany. In this respect, it is particularly notable that in other types of competition cases, including merger proceedings[40] and market investigations,[41] economists do typically find that it is necessary to control for a variety of relevant factors before comparing prices

[39] Judgment of the Competition Appeal Tribunal, *Flynn Pharma Limited, Flynn Pharma (Holdings) Limited v Competition and Markets Authority and Pfizer Inc., Pfizer Limited v Competition and Markets Authority*, 7 June 2018, available at https://www.catribunal.org.uk/sites/default/files/2018-08/1275-1276_Flynn_Judgment_CAT_11_070618.pdf ('CAT Judgment'), at 301, 402.

[40] See, the discussion of the price-concentration analysis undertaken in the *Staples/Office Depot* merger inquiry in Davis and Garces (2010) or the Commission's decision in *UPS/TNT*. Peter Davis and Eliana Garcés, 'The Relationship between Market Structure and Price' in *Quantitative Techniques for Competition and Antitrust Analysis*, Princeton University Press, 2010; COMP/M.6570, *UPS/TNT Express* (30 January 2013), available at https://ec.europa.eu/competition/mergers/cases/decisions/m6570_20130130_20610_4241141_EN.pdf.

[41] See, Competition and Markets Authority, 'Private healthcare market investigation Final Report,' 2 April 2014, available at https://assets.publishing.service.gov.uk/media/533af065e5274a5660000023/Private_healthcare_main_report.pdf; and, in particular, Appendix 6.9 of that report, available at https://assets.publishing.service.gov.uk/media/533aea81ed915d6938000019/Appendices_1.1-6.14.pdf.

across markets or across time when constructing a competitive benchmark. Ultimately, the extent to which it is necessary or appropriate to control for other factors is an empirical question—one that will need to be informed by the wider evidence base and the data that are available in a given case.

D. Potential Methods for Assessing a Pure Excessive Pricing Abuse

The CoA describes that '[t]he basic test for abuse, which is set out in the Chapter II prohibition and in Article 102, is whether the price is "*unfair*". In broad terms a price will be unfair when the dominant undertaking has reaped trading benefits which it could not have obtained in conditions of "*normal and sufficiently effective competition*", i.e. "*workable*" competition'.[42]

In describing the various potential methods available when constructing such a benchmark, the CoA expressly discusses the conclusions from the economic literature and in particular considers the 2018 OECD Background Paper entitled 'Excessive Prices in the Pharmaceutical Markets'.[43] The CoA concludes from their review that the 'economic literature emphasises the inherent complexity of applying *any* individual test to determine whether a price is unfair and abusive and makes clear that there are many different evidential or analytical routes to such a finding'.[44] As a result, LJ Green finds that '[t]here are many different tests which might be used to determine whether a price is excessive and unfair; there are or may be difficulties with all tests and much will depend upon the availability of evidence and data; all cases are highly fact and context-specific; there is a need for competition authorities to be able to intervene *ex post* in pharmaceutical cases; and, it is economically rational that competition authorities should have a margin of appreciation as to the choice of method and evidence that they seek to rely upon'.[45]

According to the CoA, in the first instance at least, the choice of benchmark is up to the competition authority, and it can be based upon:[46]

1. the costs of the undertaking being investigated;
2. comparators such as the prices charged by the same or different undertakings in the same or different geographical markets; or
3. any other benchmark or combinations thereof capable of providing a 'sufficient' indication that the prices charged are excessive and unfair.

In this section, I briefly discuss the CoA's remarks in relation to the first two factors. I also suggest another approach to fairness in a later section (and

[42] LJ Green, at 97.
[43] LJ Green, at 102–106.
[44] LJ Green, at 108, emphasis in original.
[45] LJ Green, at 107.
[46] LJ Green, at 125.

in doing so, highlight the traditional economic approach to measuring the division of economic value between customers and their suppliers).

D.1. Cost-plus

The CoA finds that a benchmark, while necessarily comparative, 'does not exclude a benchmark premised upon the undertaking's own cost base'[47] or 'an assessment of what an appropriate ROS or ROCE would be for that undertaking'.[48] Thus, a benchmark price or profitability level associated with competitive markets can be developed on a cost-plus analysis. Cost-plus is the floor above which excessive profitability (or on a per-unit basis, price) is measured.

The advantages, and also the challenges, in developing profitability or pricing benchmarks on the basis of cost-plus will be familiar to many UK practitioners given the important role profitability analysis has played in some market investigations[49] as well as its significant role in some past excessive pricing cases, for example, *Albion Water II*.[50]

The challenges in constructing such benchmarks include that a competition agency must decide:

1. which elements of a dominant firm's costs are variable, fixed, or sunk and the extent to which fixed and sunk costs, in particular, should be included within allowable costs when constructing the benchmark;
2. the allocation of shared costs between products or services subject to the infringement and those not subject to the infringement when the defendant incurs costs that support services used in the supply of multiple products; and
3. whether the dominant firm is inefficient, that is, what part of costs should be included in the calculation under the presumption that only efficiently incurred costs are rewarded in competitive markets. As an aside, I note that in making such assessments, it is important to be careful when comparing cost data across firms. For example, suppose a dominant firm spends £100 million on an IT system to support its customer service operations while a second firm spends

[47] LJ Green, at 122.

[48] LJ Green, at 122.

[49] See, Competition and Markets Authority, 'Energy market investigation Final Report,' 24 June 2016, available at https://assets.publishing.service.gov.uk/media/5773de34e5274a0da3000113/final-report-energy-market-investigation.pdf ('CMA's Energy Market Investigation'); Competition and Markets Authority, 'Private healthcare market investigation Final report,' 2 April 2014, available at https://assets.publishing.service.gov.uk/media/533af065e5274a5660000023/Private_healthcare_main_report.pdf.

[50] CAT Judgment, at 304; Case 1046/2/4/04, *Albion Water and Another v Water Services Regulation Authority and Others* (7 November 2008), available at https://www.catribunal.org.uk/sites/default/files/Judgment_on_unfair_pricing_1046_Albion_071108.pdf.

> £200 million on a better system and as such has a lower variable cost-to-serve. It is clearly not enough to simply compare the variable costs of operating the two different systems and conclude that the dominant firm's costs are necessarily higher and therefore inefficient since the dominant firm saved £100 million in capital costs up-front. (This type of example arose for example in the context of the CMA's Energy Market Investigation.)

In addition, a competition agency must decide upon the appropriate 'plus' to use when constructing such a benchmark. The CoA decided this may be based on ROS or ROCE. However, it is important to keep in mind that economics suggests that even in many competitive markets firms may earn more than the normal economic return, that is, the minimum expected 'plus' required to justify investing capital in the business. Indeed, while economics suggests that the least profitable active firm, sometimes called the 'marginal' firm, must expect to earn a rate of return equal to its cost of capital in order to remain active, economics does not suggest that every firm in an industry will necessarily earn a return on capital no more than its cost of capital.[51] If there is evidence of excessive profitability or prices above the point at which the firm would be earning a return on capital above a benchmark return, it remains important to consider whether it is doing so for good, or problematic, reasons. A firm with a product or service that customers value greatly may be earning a fair return on its success, and competition law does not seek to punish success.[52]

While the cost-plus approach can be applied to overall profitability, the CoA describes that it can also be applied in terms of price levels: 'If a Cost-Plus test is applied the competition authority may compare the cost of production with the selling price in order to disclose the profit margin. Then the authority should determine whether the margin is "*excessive*". This can be done by comparing the price charged against a benchmark higher than cost such as a reasonable rate of return on sales (ROS) or to some other appropriate benchmark such as return on capital employed (ROCE)'.[53]

Economics suggests that price levels in a competitive market can be predicted using a cost-plus approach, but potentially in quite a different way from overall firm profitability. Specifically, in benchmark economic models,

[51] See for example Robert Lind, and Mike Walker (2004), *The (mis)use of profitability analysis in competition law cases*, 25 European Competition Law Review, 7, pp. 439–446.

[52] Article 102 TFEU's aim is to prevent both direct harm and indirect harm to customers. In particular, Article 102 'is not only aimed at practices which may cause prejudice to consumers directly, but also at those which are detrimental to them through their impact on an effective competition structure . . . ' (paragraph 26 Europemballage and Continental Can v. Commission, Case 6/72, [1973], Court of Justice, cited at paragraph 106 in British Airways (British Airways v Commission, Case C-95/04, Court of Justice [2007]) and also referred to in paragraph 20 in Post Danmark A/S v Konkurrencerådet, Case C-209/10, Court of Justice [2012]).

[53] LJ Green, at 97.

competitive prices are predicted to be equal to a measure of marginal cost, plus a suitable measure of gross margin. In such economic models, the gross margin can sometimes depend on fairly complex features of the market. For example, in a differentiated product oligopoly, economic theory suggests that prices at a given point in time may in principle depend on the full ownership structure and a full set of diversion ratios between all available products in a market.[54] Gross margins may also vary over customer segments, markets, and time. For example, industry mark-ups may vary when firms become more efficient over time as they accumulate experience (that is, move down their learning curve). In such circumstances, competitive prices may involve a degree of discounting today to support sales. Higher sales mean more accumulated production experience that allows firms to learn and be more productive in the future. The implication is that a competitive measure of mark-up can depend on the nature of, and factors that affect the extent of, competition in an industry.

D.2. Comparators

LJ Green notes that there are cases, for example, *Latvian Copyright*, where no cost-plus analysis has been performed and he describes that 'in cases involving intangible property, such as copyright, it is recognised that such an analysis might be artificial'.[55] Instead, for example in *Tournier*,[56] a comparison of royalty rates across EEA member states rather than a cost-plus approach has been endorsed. Specifically, the CoA describes that in *Tournier* the national court asked the Court of Justice whether Article 102 was infringed where a dominant copyright-management society fixed 'a scale and rate of royalty which is several times greater than that applied by all copyright management societies in the member countries of the EEC without any objectively justifiable ground and is unrelated to the sums redistributed to the authors, so that the royalty is disproportionate to the economic value of the service provided?'[57] The Court of Justice said '[i]t must therefore be concluded that a comparison with the situation in other Member States may provide useful indications regarding the possible abuse of a dominant position by a national copyright-management society' and a dominant position in a copyright-management society 'imposes unfair trading conditions where the royalties which it charges

[54] The differentiated product Bertrand model of competition. See, Peter Davis and Eliana Garcés, Quantitative Techniques for Competition and Antitrust Analysis, Princeton University Press, Princeton, NJ, 2010, pp. 236–239.

[55] LJ Green, at 78. See also, LJ Green, at 105, which similarly describes: 'In some cases, a comparison between production costs and prices is used but price/cost analysis is not feasible in all cases due to lack of data or because the disputed price relates to an intangible good such as an IP right.'

[56] Case 395/87, *Ministère Public v Tournier* (13 July 1989), available at http://curia.europa.eu/juris/showPdf.jsf?text=&docid=95762&pageIndex=0&doclang=en&mode=lst&dir=&occ=first&part=1&cid=1728588 ('Tournier').

[57] Tournier, at 7.

to discothèques are appreciably higher than those charged in other Member States, the rates being compared on a consistent basis. That would not be the case if the copyright-management society in question were able to justify such a difference by reference to objective and relevant dissimilarities between copyright management in the Member State concerned and copyright management in the other Member States'.[58] Economists sometimes use cross-country comparisons, but in the understanding that such comparisons should be made on a like-for-like basis to the extent practicable (and interpreted carefully to the extent it is not practicable to control for differences).

Prices from some other EEA member state can provide a potential comparator for use as a competitive benchmark price if the conduct at issue did not affect prices in that state.[59] The CoA describes that '[p]rice-based benchmarks are used by comparing the investigated price with prices charged by the dominant firm in different markets or over time or by comparing the prices charged by the dominant firm and those charged by other firms, either in the same market or in other markets'.[60] Economists would consider both comparisons over time and across markets as comparator methods. However, if—contrary to the CoA judgment—a sharp distinction were drawn in law on the alternatives in *United Brands* between 'unfair in itself' and 'unfair when compared to competing products', then—uniquely in this context—'compared to' methods would focus on price differences across markets or even more specifically perhaps just across products. The CoA judgment avoided such an outcome.

In *Pfizer/Flynn*, the CMA decided that having reached the conclusion that each impugned price was 'unfair in itself', that there was no need to proceed to reach a conclusion on whether those prices were also unfair when compared to competing products.[61] The CMA nonetheless did 'for completeness' consider whether such a comparison could be conducted.[62] The CoA describes that the evidence in relation to comparator products focused on a comparison between prices for phenytoin sodium dispensed in capsule form with the price for phenytoin sodium tablets.[63] Specifically, Pfizer manufactures capsules, and rivals, including Teva, produce tablet versions for the UK market. Capsules and tablets are clinically identical and are sold in the UK to the same ultimate

[58] Tournier, at 43 and 46.

[59] There are risks of distortionary conduct following from policy rules. In this case, a dominant firm that sets prices knowing that a competition agency may subsequently make price comparisons across countries, may have undesirable incentives. More specifically, there is some risk that the result will be that the dominant firm would seek to charge the same price in the different countries where it is active by either raising its prices in cheaper countries or not supplying to those countries where it must offer a low price. Thus, there are potential downside policy risks from an implicit ban on dominant firms charging differential prices across countries.

[60] LJ Green, at 105.

[61] CMA Decision, at 5.476.

[62] CMA Decision, at 5.478.

[63] LJ Green, at 149.

customer, the NHS.[64] Before the CMA, Pfizer adduced evidence on the relationship between tablets and capsules. It also encouraged the CMA to evaluate the tablet as a comparator as relevant to the assessment of the fairness of phenytoin sodium capsule prices. The NHS 'paid a price for the tablet double that charged by Pfizer for its capsules'.[65]

On appeal, the CAT concluded, having taken account of additional evidence not previously available to the CMA, that the CMA's analysis of the comparator evidence was insufficiently deep. The CoA concluded that:

1. First, the CMA was obligated to properly and fairly evaluate the comparator evidence because it was adduced by the undertakings as part of their defences. It was not therefore open to the CMA to ignore that evidence simply because it had, in its judgment, conducted a sufficient analysis. The CMA will always need, as a part of its duty of good administration, to give some consideration to *prima facie* valid comparators advanced evidentially by the undertakings.
2. Second, the CoA decided that the CAT's findings 'were made within its jurisdiction. [The CAT] specified the areas where it found the [CMA's] evaluation lacking. It was not bound by the CMA's margin of '*manoeuvre*' or discretion. It has explained why in its view the error could be material'.[66] LJ Green thus concludes that he 'can detect no error in the approach adopted by the Tribunal. At base [the CMA's] objection [was] to a finding of fact [by the CAT]'.[67] Sir Geoffrey Vos similarly concludes the CAT was 'entitled to reach the factual conclusions [that it] did'.[68] Appeals to the CoA from the CAT are, of course, only on a point of law or the amount of any penalty.[69]

E. Economic Value and Fairness

In *Pfizer/Flynn*, the CMA's analysis of unfairness referred to various findings.

1. '[T]he substantial disparity between Pfizer's and Flynn's prices and the economic value of their products.
2. [T]he fact that competitive conditions prevailing on both relevant markets demonstrated that the relevant markets did not function in a

[64] LJ Green, at 149.
[65] LJ Green, at 149, emphasis in original.
[66] LJ Green, at 152.
[67] LJ Green, at 152.
[68] Sir Geoffrey Vos, at 279.
[69] See answer to the question, 'What can I do if I am dissatisfied with a judgment of the Tribunal?' on the CAT's website FAQ, available at https://www.catribunal.org.uk/frequently-asked-questions.

manner that was likely to produce a reasonable relation between price and economic value.
3. [T]he fact that Pfizer's and Flynn's prices had an adverse effect on the end customer (in this case the NHS in the form of [Clinical Commissioning Groups] CCGs) and that Pfizer and Flynn were aware of this.
4. [T]he age of the drug.
5. [T]he substantial price increases over time.
6. Pfizer's introduction of Flynn to the supply chain to mitigate the risk of adverse publicity and reputational damage arising from any price increase rather than genericising Epanutin itself.
7. [I]n Pfizer's case the fact that it had not implemented any similar price increases in other EU Member States. [A]nd
8. [I]n Flynn's case the fact of its limited activities and low commercial risk'.[70]

Before discussing the CoA's consideration of economic value further, I pause to reflect on a number of the other points the CMA makes. First, I note that point (3) would always be true for any price rise (since by definition they always have an adverse effect on customers). Second, I note that point (6) would ordinarily be desirable for even nondominant companies (since taking actions to mitigate adverse publicity and reputational damage arising from price rises will always be rational when the benefit of doing so is greater than the cost). Third, I note that the Tribunal remarked that the age of the drug (point 4) 'is irrelevant in therapeutic terms' and so would not necessarily have an impact on willingness to pay directly.[71] Fourth, I note that at points (5) and (7), respectively, the CMA notes its evidence on the appropriate competitive price benchmark both from comparisons over time and across markets. Point (8) reflects the CMA's view that the activities that Flynn undertook do not justify prices markedly above its cost-plus benchmark.

Returning to economic value, the CMA's emphasis on economic value in points (1) and (2) in its analysis of unfairness derives from *United Brands*, which describes that 'charging a price which is *excessive* because it has no *reasonable* relation to the economic value of the product supplied would be such an abuse'.[72] The CMA, CAT, and CoA considered in particular whether the CMA had taken proper account of 'patient benefit', that is, 'the benefit that epilepsy patients derive from their use of the capsule and its ability to keep their condition under control'.[73]

[70] LJ Green, at 159.
[71] CAT Judgment, at 412. See also LJ Green, at 162.
[72] United Brands, at 250, emphasis added.
[73] LJ Green, at 157.

E.1. Economic Value is an Economic Concept

LJ Green describes that commentators suggest the meaning of paragraphs 248–253 of the *United Brands* judgment contain significant ambiguities.[74] For example, the CoA notes that in paragraph 250 of *United Brands* the court equates (without more) a price that is 'excessive' with a price that is abusive—and that this is inconsistent with the two-limb approach laid out in paragraph 252,[75] and that there is no definition or explanation of terms such as 'reasonableness' or 'economic value' in *United Brands*.[76] The CoA nonetheless does make clear that if a price is found excessive, 'the authority should then compare the price charged against any other factors which might otherwise serve to justify the price charged as fair and not abusive'.[77]

Citing *Albion Water II* (at paragraph 266), the CAT had previously similarly noted in *Pfizer/Flynn* that 'there is rather little specific guidance in the jurisprudence as to what this term [economic value] means, beyond a general idea that it is what the product is worth'.[78] The CAT also described that '[i]t can include the cost of production but also other elements of value to the purchaser. In this sense, the economic value of a product is highly fact-specific and very much a matter of judgment'.[79]

The idea that decision makers must exercise judgment in a highly fact-specific way while being unclear from the case law about the definition of economic value seems decidedly optimistic. Fortunately, LJ Green wholeheartedly rejects this economist's least favorite line in the CAT's *Pfizer/Flynn* judgment, wherein the CAT decided that it was 'clear' that 'economic value' was a 'legal rather than an economic concept'.[80] He describes that '[i]t is '*legal*' in the strictly limited sense that it has been ascribed a meaning in a court judgment but, at base, it is an economic concept'.[81] Thus, progress seems likely to be achieved by reflecting further on the findings of the CoA and, in particular, on the relevant economic principles.

To emphasise the significance of this aspect of the decision, it is perhaps instructive to cite an anonymous economist expert reviewer of this article who described that in his or her view: '[I]t is news to economists that the concept

[74] LJ Green, at 64.

[75] LJ Green, at 66, referring to United Brands, at 252.

[76] '[C]harging a price which is excessive because it has no reasonable relation to the economic value of the product supplied would be such an abuse.' See, United Brands, at 250. The CoA also notes that 'there is no definition or explanation of terms such as "reasonableness" or "economic value". There is however no indication that the court intended these to be precise terms of legal or economic art.' See, LJ Green, at 65. 'The concept of economic value is not defined [in *United Brands*].' LJ Green, at 154.

[77] LJ Green, at 97(v).

[78] CAT Judgment, at 407.

[79] CAT Judgment, at 407.

[80] CAT Judgment, at 407.

[81] LJ Green, at 171, emphasis in original.

of economic value in the case law is an economic concept. No doubt it should be, but it certainly does not seem to have had economic content in the past'.

E.2. Defining Economic Value

Having found that economic value is, at base, an economic concept, LJ Green seeks to clarify its definition. First, he describes that '[i]n broad terms the economic value of a good or service is what a consumer is willing to pay for it'.[82] Relatedly, he later describes economic value as 'what it is that users and customers value and will reasonably pay for'.[83]

I return to the motivation and implications of inserting the word 'reasonably' in this definition below. Before doing so I note that, for an economist, the concept of willingness to pay is well-defined. Since at least Marshall (1890)[84] economists have used the concept as the basis for one of their fundamental tools, the demand curve. Economists also define the difference between willingness to pay and price as a standard measure of consumers' surplus value achieved by a transaction. Willingness to pay is, therefore, a measure of gross consumer value while consumer surplus is a measure of net consumer value measured in GB pounds.

Willingness to pay has previously received attention in the case law. Specifically, the CoA notes that in *Attheraces* it had held that the judge considering the case at first instance 'took too narrow a view of economic value in Article [102]' and 'was wrong to reject BHB's contention on the relevance of the value of the pre-race data to ATR in determining the economic value of the pre-race data and whether the charges specified by BHB were excessive and unfair'.[85] In doing so, the CoA implicitly accepted the argument put forward by BHB's experts (including this author) in the High Court that investments made by BHB which increased the value of racing to purchasers of the pre-race data should properly be allowed for in any assessment of whether prices were fair. In short, if investments in racing such as prize money made the pre-race data more valuable to customers, so that they were willing to pay more, then BHB should rightly have been able to recoup such investments by charging for pre-race data. Such effects must necessarily be accounted for when evaluating whether BHB's prices were fair for the purposes of Article 102. In *Attheraces*, this became known as the 'demand push' point. The reason was that, if demand for pre-race data was increased as a result of investments made by BHB in

[82] LJ Green, at 154.

[83] LJ Green, at 171.

[84] Alfred Marshall, Principles of Economics, Macmillan, London, 1890. Hotelling (1938) attributes the concept to an engineer, Jules Dupuit, in his work of 1844. See the discussion in Harold Hotelling (1938), The General Welfare in Relation to Problems of Taxation and of Railway and Utility Rates, 6 *Econometrica* 3, pp. 242–269.

[85] Attheraces, at 218.

racing, this increase in customer value should rightly be taken into account when evaluating what was, and was not, an unfair price under Article 102.

E.3. Dependency, Inelastic Demand, and the Cellophane Fallacy

Strikingly, in *Pfizer/Flynn*, the parties argued that a regulatory change had reduced customers' willingness to switch between providers and increased their willingness to pay (economic value) for their products: '[T]he economic value of phenytoin sodium capsules should take account of the therapeutic value to patients of Continuity of Supply. According to the Parties, in reducing switching between different manufacturers' versions of phenytoin sodium capsule, the [Medicines and Healthcare Products Regulatory Agency] MHRA Guidance has served to increase the economic value of Flynn's Product (and by extension the economic value of Pfizer's Product)'. [86]

The CMA countered that '[t]he way the various pieces of clinical guidance have been followed in practice, combined with the absence of effective countervailing buyer power, has resulted in Pfizer and Flynn holding dominant positions in their respective relevant markets, which the Parties have exploited by imposing supra-competitive prices. Accordingly, the logic underpinning this representation is that the economic value of phenytoin sodium capsules (and by extension the Parties' ability to raise their prices) should be increased to reflect these dominant positions. The CMA does not accept this proposition. To do so would mean that a supplier of a drug which is essential and non-substitutable for clinical reasons can set a supra-competitive price without any risk of infringing competition law'.[87] Thus, the CMA argued to the CAT that clinical guidance which prevented switching meant that patients were in effect tied to the manufacturer's brand, and the payer (the NHS) had no option but to pay the price demanded. Because patients stabilized on capsules were dependent on them, it was not possible to say that the therapeutic advantages patients derived from the drug amounted to 'an indication of genuine economic value'.[88]

The CMA argues that this concern is accepted in the case law and can be seen in the Opinion of the Advocate General Jacobs in *Tournier* where he described that the idea 'that those who need[ed] [a product or service] more should pay more was "superficially attractive" but [that] the "usefulness of such criterion breaks down" when users were "completely dependent" on the supply of the product in question and there was no other possible source of supply'.[89] The CoA noted that it is also related to the challenge in *Attheraces* and made earlier in the United States antitrust through the criticisms labelled

[86] CMA Decision, at 5.279.
[87] CMA Decision, at 5.282–5.283.
[88] LJ Green, at 156.
[89] LJ Green, at 163.

as the 'cellophane fallacy', following the judgment of the US Supreme Court in *US v. DuPont*, 351 US 377 (1956).

The upshot is that the CoA accepts that willingness to pay 'cannot serve as an adequate definition in an abuse case since otherwise true value would be defined as anything that an exploitative and abusive dominant undertaking could get away with. It would equate proper value with an unfair price'.[90]

Economists should have no difficulty agreeing that courts cannot simply ask whether a dominant firm's actual prices were below a dominant firm's remaining customers' willingness to pay—since those customers are, by definition, willing to pay a dominant firm's actual prices. In *Pfizer/Flynn*, the CoA rightly notes that '[t]he simple fact that a consumer will or must pay the price that a dominant undertaking demands is not therefore an indication it reflects a reasonable relationship with economic value'.[91] Indeed, the economic concern that a dominant firm may have too much market power is often very different—there are potential customers foregoing purchase who would wish to purchase the product if normal and sufficiently effective competitive market prices were available to them.

Even so, the points made by Pfizer and Flynn also resonate with an economist. There may be factors, such as cost, regulatory changes, or variation over time in customers' willingness to pay (economic value)—in this case, a regulatory restriction that limited customers' access to potential substitute products—even in competitive circumstances. Such changes can impact competitive prices and logically, such effects should be taken into account appropriately when constructing a normal and sufficiently competitive benchmark. The guidance from the court appears to be that it is appropriate to take into account such features to the extent such movements are consistent with 'normal and sufficiently effective competition'[92] referred to in *United Brands*. Of course, a substantial challenge remains when defining what 'sufficiently effective' means in practice.

E.4. Measuring Reasonable Economic Value in an effectively Competitive Market

In *United Brands*, the court held that there must be a 'reasonable' relationship between price and economic value. The CAT noted that counsel for Pfizer and the CMA 'both accepted that economic value was relevant and had to be taken into account at some stage, but neither was prepared to be more specific'.[93] Simply inserting the word 'reasonable' does not in itself deal with the dependency and cellophane fallacy concerns that the Advocate General, CMA, CAT, and CoA have each highlighted. To do so, the word 'reasonable' in paragraph 250 of *United Brands* must be endowed with more specific, reliable,

[90] LJ Green, at 153.
[91] LJ Green, at 155.
[92] United Brands, at 249.
[93] LJ Green, at 162.

economic content. LJ Green notes that 'demand side factors may be capable of generating economic value'[95] and proposes that 'a proxy [for reasonable economic value] might be what consumers are prepared to pay for the good or service in an effectively competitive market'.[95]

Under such a proxy for reasonable economic value, a dominant firm's customer base will in conventional economic terms receive consumer surplus (net economic value) when they purchase even if they pay high prices. However, consumers will not receive as much consumer surplus as they would if prices were at competitive levels when a dominant firm has market power and charges prices above the levels that would prevail in conditions of normal and sufficiently effective competition.

The CMA argued that they 'did take account of economic value generally, and 'patient benefit' specifically'[96] as part of their cost-plus test.[97] In describing the CAT's decision, the CoA noted: 'The question is whether the CMA was correct, on the facts of this case, to exclude from its calculation of Pfizer's and Flynn's economic value all factors other than those that formed part of the Cost-Plus calculation'.[98]

Specifically, the CAT was concerned that the CMA 'having addressed itself to the issue (as part of Cost-Plus) . . . had failed adequately to take account of evidence that there might be 'some' (albeit unspecified) value to be attributed to patient benefit, and that the reasons given by the CMA for rejecting patient benefit as relevant (namely dependency) was itself an issue of fact and degree (and not principle) and did not mean that the CMA could ignore relevant evidence'.[99] The CoA accepts the Tribunal's concerns, stating that '[e]conomic common sense indicates that dependency and the inferences to be drawn from its existence are indeed matters of fact and degree. Even if there is dependency there might still be some economic value but not necessarily reflecting the full price demanded'.[100]

On one interpretation, the CAT and the CoA are concerned that it might have been appropriate to adopt a benchmark price above the CMA's cost-plus benchmark. It is worth highlighting the word 'might' in this sentence.

In terms of the economics, it is important to note that competitive prices in many economic models of competition can be described on the basis of a suitable measure of cost, plus a suitable measure of margin. If so, customers' economic values—willingness to pay—will determine competitive price levels from within the 'plus' rather than as a result of 'some' additional factor. Even so, there would remain much scope to debate the appropriate definition of

[94] LJ Green, at 166.
[95] LJ Green, at 155.
[96] LJ Green, at 158.
[97] LJ Green, at 166.
[98] LJ Green, at 166, citing CAT Judgment, at 411.
[99] LJ Green, at 166.
[100] LJ Green, at 167.

both cost and the plus factor to apply. The economics strongly suggests that economic value can sometimes impact competitive prices in complex ways that can, for example, depend on the detailed structure of customer demand and the ownership structure of products sold in a market.[101]

LJ Green describes that his proposed proxy may in practice be constructed based on either the cost-plus approach or comparators: '[A]s the CMA argues, when evaluating patient benefit it would be possible to measure its economic value in the Plus element of Cost-Plus, or even in the fairness element. Equally, if there is evidence of the prices being charged in the relevant, comparator, markets, which were effectively competitive then those prices could be capable of acting as proxy evidence of the economic value of patient benefit'.[102] He concludes that 'economic value needs to be factored in and fairly evaluated, *somewhere*, but it is properly a matter which falls to the judgment of the competition authority as to where in the analysis this occurs'.[103] Thus, while the CoA rejects the CMA's ground of appeal, they ultimately side largely with the CMA on the specific and significant point of whether economic value can properly be accounted for in the 'plus' of the cost-plus calculation.

This approach appears consistent with the approach taken by the CoA in *Attheraces*. There, the facts of the case were that the outsourced cost of collecting the pre-race runner and rider's data themselves, the service for which BHB allegedly charged excessive prices, was £5 million. The CoA accepted, however, that a price benchmark based only on recovery of such narrowly defined costs would not properly take account of the broader investments in racing made by BHB. The CoA judgment in *Pfizer/Flynn* would allow an assessment of such value either inside or outside a cost-plus calculation, so long as it was properly considered.

The CoA does not address the specific question of whether there are principles that should guide the proper interpretation of 'normal' or 'sufficiently' when constructing the "normal and sufficiently competitive" benchmark referred to in *United Brands.*[104]

E.5. Fairness and Economic Value

The CoA has interpreted the *United Brands* test as implying that workable competitive prices are fair. In their own words, '[i]n broad terms a price will be unfair when the dominant undertaking has reaped trading benefits which it could not have obtained in conditions of "normal and sufficiently effective competition", i.e. "workable" competition'.[105] This is striking for an economist since from the very early days of our training, we are taught that

[101] This is the case in particular in standard economic models. See for instance the discussion of the economic model called differentiated product Bertrand competition in Davis and Garcés (2010) *op. cite*.
[102] LJ Green, at 172.
[103] LJ Green, at 173, emphasis in original.
[104] United Brands, at 249.
[105] LJ Green, at 97.

economic theory suggests competitive prices can be economically efficient,[106] but they may also imply deep inequalities and, in that sense at least, may be unfair.[107] More specifically, the first fundamental theorem of welfare economics describes that, under the strong assumptions associated with perfectly competitive markets, market equilibrium is Pareto efficient. That is, no person can be made better off without making someone else worse off. The second fundamental theorem of welfare economics suggests that any Pareto efficient market outcome can be achieved with lump-sum transfers. Thus, economists traditionally associate competitive market outcomes with those which are economically efficient but not necessarily 'fair', unless lump-sum transfers are used to make market outcomes 'fair'.[108]

LJ Green considers that while *United Brands*[109] provides 'an example of such an unfair price',[110] he describes also that the *United Brands* decision "acknowledges that there are other economic ways of devising rules for determining whether a price is unfair".[111] He also agrees with the parties' submissions that it is 'evident from the judgment in *United Brands* that the reference to the "economic value" is as a part of the overall descriptor of the abuse; it is not the [*United Brands*] test [for unfair pricing]'.[112]

This suggests that the courts should be open to considering alternative approaches that help them to evaluate the fairness or otherwise of a dominant firm's prices. It also raises the question of what the economic literature can usefully say about the normative question of the way in which the courts should analyse fairness. In that respect, economists do have a well-developed toolkit that could inform an assessment of fairness.[113] Specifically, economists consider that the total economic surplus obtained from a market can be calculated as the sum of consumers' surplus and producers' surplus values (economic profits), each measured in pounds. This sum is often termed total welfare in the academic economic literature and reflects a net rather than a

[106] Specifically, perfectly competitive prices are believed to be both productively and allocatively efficient. Productive efficiency means that there is no way of producing a level of output at a lower cost. Allocative efficiency means that 'consumers pay firms exactly what it costs them to produce the last (marginal) unit of output.' See, Alan Griffiths and Stuart Wall, INTERMEDIATE MICROECONOMICS: THEORY AND APPLICATIONS, Pearson Education Limited, Edinburgh, 2000, p. 293.

[107] Put crudely for illustration, the competitive price for a Rolls-Royce will inevitably be too high for every member of a community to afford. Similarly, competitive prices may involve price discrimination so that different types of customers pay different prices for the same good. Sometimes, but not always, poorer or disadvantaged customers may pay higher but competitive prices than richer, more advantaged, customers.

[108] Andreu Mas-Colell, Michael D. Whinston and Jerry R. Green, MICROECONOMIC THEORY, Oxford University Press, New York, 1995, pp. 325–328.

[109] United Brands, at 249.

[110] LJ Green, at 97(ii).

[111] LJ Green, at 63, emphasis in original.

[112] LJ Green, at 172.

[113] Peter Davis and Vivek Mani (2018), *The Law and Economics of Excessive and Unfair Pricing: A Review and a Proposal*, 63 THE ANTITRUST BULLETIN, 4, pp. 399–430.

gross notion of economic value (since, for example, a consumer who is willing to pay £10 for an item but actually only pays £6 obtains a net consumer surplus-value of £4, while a firm whose costs of production were £1 would earn a gross profit margin of £5 per unit sold).

The CoA does not refer to any case law that has paid specific attention to the division, fair or otherwise, of economic surplus between consumers and producers. And yet, total welfare provides economists with a measure of the size of the metaphorical economic pie that is available to be divided between consumers and firms. For economists, the proportion of the economic pie going to consumers and producers in the form of their surpluses describes the net benefits that each group derives from trade. These shares of the available economic pie could, in principle, be evaluated in cases and compared to the division of the economic pie under competitive conditions.

The empirical economic literature provides several examples of such calculations and demonstrates that they are practicable in real-world markets where data are available. For example, Branstetter et al. (2016) suggest that, for US hypertension drugs, 54–78 per cent of the total surplus goes to consumers.[114] Outside of the pharmaceutical sector, Ivaldi and Verboven (2005) assess the proposed but ultimately prohibited Volvo and Scania merger and found that, across 16 different European countries, 57–61 per cent of the total surplus for rigid and tractor trucks is attributed to consumers (60 per cent on average).[115] Finally, studying the merger between Boeing and McDonnell Douglas in the medium-sized, wide-body aircraft industry, An and Zhao (2019) suggest that consumers capture 66–75 per cent of the post-merger total surplus.[116]

Such analyses require careful construction of economic models which judges and competition agencies will rightly assess for their correct evidential weight. The significant advantage of such an approach is that it is grounded firmly in a coherent economic framework that has provided the mainstay of microeconomic analysis for more than a century.

II. CONCLUSION

With the benefit of hindsight, many aspects of the CoA's judgment look both unsurprising and helpful for guiding analysis in future cases. For an economist, the positives include the following:

[114] Lee G. Branstetter, Chirantan Chatterjee and Matthew J. Higgins (2016), *Regulation and Welfare: Evidence from Paragraph IV Generic Entry in the Pharmaceutical Industry*, 47 Rand Journal Of Economics, 4, pp. 857–890, Figure 7 (real surplus).

[115] Marc Ivaldi and Frank Verboven (2005), *Quantifying the Effects from Horizontal Mergers in European Competition Policy*, 23 International Journal of Industrial Organization, 9–10, pp. 669–691, Table 5 (combined with its Working Paper version (2002) Table 6, available at http://idei.fr/sites/default/files/medias/doc/by/ivaldi/iv_merger_v04.pdf).

[116] Yonghong An and Wei Zhao (2019), *Dynamic Efficiencies of the 1997 Boeing-McDonnell Douglas Merger*, 50 Rand Journal Of Economics, 3, pp. 666–694, Tables 6–7 Scenario (i).

1. The CoA properly places the focus squarely on the evidence in parties' submissions. Parties' economists will seek to introduce reliable evidence to the record, and competition authorities are required to evaluate such submissions fairly and properly.
2. Consistent with economic analysis, the CoA highlights that assessing the fairness of prices under *United Brands* requires consideration of a benchmark.
3. The CoA allows but does not require that benchmark to be based on specific types of evidence, allowing competition agencies to weigh the evidence.
4. Price benchmarks can be constructed from an economic analysis based on cost-plus and/or comparator evidence in a manner that is suitable in the case (since cost-plus or comparator methods could each—separately or combined—provide a suitable proxy to construct the required benchmark for a competition agency).
5. If carefully interpreted, the distinction the CoA draws between real-world and hypothetical price benchmarks need not result in economically problematic results.
6. The CAT's conclusion that "prices across different EU Member States should not be compared without taking account of other relevant factors such as that those prices may be kept low by governmental measures, or different economic or regulatory conditions"[117] remains undisturbed.

The CoA judgment does leave some potentially material aspects of these cases for further debate in future cases and during the remittal of *Pfizer/Flynn* back to the CMA. In particular, while the CoA highlights that the cellophane fallacy is a legitimate concern for competition agencies, they also accept the CAT's conclusion that 'some' economic value might be relevant beyond the CMA's cost-plus benchmark. While the extent of such relevance may be a matter of fact or degree, the CoA did not decide whether or how far a competition agency should go in that direction. In this respect, the CoA does not provide direct guidance for the proper interpretation of 'normal and sufficiently competitive' conditions when constructing the required benchmark for a competition agency's assessment.

Finally, I note that adopting a benchmark wherein a 'price will be unfair when the dominant undertaking has reaped trading benefits which it could not have obtained in conditions of "normal and sufficiently effective competition", i.e. "workable" competition'[118] suggests that some issues that economists consider to be relevant to fairness in the sense of inequality would not be caught by Article 102. In short, economists believe that competitive markets

[117] CAT Judgment, at 402.
[118] LJ Green, at 97.

can result in economically efficient market outcomes, but that they can be consistent with high degrees of inequality and so, in that sense, need not be fair. Such aspects of fairness are, by implication, not addressable under Article 102.