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CPI COMPETITION POLICY INTERNATIONAL

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LETTER FROM THE EDITOR

Dear Readers,

To kick off our round of summer editions, the July 2018 CPI Antitrust Chronicle features articles from members of the CPI Editorial Advisory Board.

This compilation of articles covers a variety of jurisdictions and antitrust topics including foreign direct investment, machine learning and cartel detection, excessive pricing in the pharmaceutical sector and the evolution on the *per se* rule.

We are pleased to open this month's Chronicle with an interview with the European Commissioner for Competition, Margrethe Vestager.

Looking down the road, the October Chronicle will feature articles from speakers at the 13th CRESSE Conference recently held in Crete, Greece. CPI had the opportunity to participate at the conference which featured keynote addresses by Herbert Hovenkamp, David S. Evans, Eleanor Fox, Dennis Carlton and John Vickers.

Lastly, please take the opportunity to visit the CPI website and listen to our selection of Chronicle articles in audio form. This is a convenient way for our readers to keep up with our recent and past articles on the go, at the gym or at the beach.

As always, thank you to our great panel of authors.

Sincerely,

CPI Team

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CPI Talks…

An interview with Margrethe Vestager, European Commissioner for Competition.

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Looking a Gift Horse in The Mouth: Heightened Scrutiny of Foreign Direct Investment

By Rachel Brandenburger & Christopher Hutton

Although levels of foreign direct investment fell in 2017, they remain strong. At the same time, the scrutiny of foreign investments has increased. Enhanced scrutiny will inevitably be a factor for investors planning cross-border deals. Investors will need to be prepared, particularly when navigating navigate multiple regimes. At the same time, governments have to steer a course between scrutinizing foreign investment, and making sure that scrutiny does not create an overly hostile environment for inward investment. It is in the interests of both governments and investors to seek to ensure that investment flows continue and, as a result, that foreign direct investment reviews are efficient and effective.

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The Cat Warns Antitrust Watchdogs to be Careful When Looking at Excessive Pricing

By James Killick & Assimakis Komninos

This article analyses the recent judgment of the UK Competition Appeal Tribunal ("CAT") which annulled the decision fining Pfizer and Flynn Pharma for abusing their dominant position by charging excessive prices for a pharmaceutical product. While some elements of the CAT's ruling are based on the relatively unusual facts of the case, the judgment also analyses the law in detail and proposes a set of tests for future cases. While it is clear that competition authorities can continue to bring excessive pricing cases, the ruling emphasizes that excessive pricing decisions must be "soundly based on proper evidence and analysis" and must also respect the presumption of innocence.

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Can Machine Learning Aid in Cartel Detection?

By Rosa M. Abrantes-Metz & Albert D. Metz

In this brief note we explore some of the potential for modern "machine learning" methods to aid in the detection, and therefore defense, of collusive arrangements. We argue that where and when the problem can be formed as one of classification or prediction – are the observed prices during this period well-explained by an algorithm which does explain prices in another period? – machine learning algorithms may be useful supplementary tools. But we also argue that the analysis of collusion rarely ends with such questions. When we need to test a hypothesis, the statistical properties of more traditional econometric methods are likely still required.

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The *Per Se* Rule Against Hard-Core Antitrust Violations: Etched in Stone or Endangered Species?

By Jay L. Himes & Brian Morrison

Last year, the District Court for the District of Utah held that the rule of reason governed a criminal antitrust prosecution by the Department of Justice, filed against a company that allocated customers with a competitor. This trial level ruling is on appeal to the Tenth Circuit. The Court of Appeals' decision could significantly affect both criminal and civil antitrust actions. This article addresses the pending case and appeal, and also discusses other recent DOJ enforcement actions, which the DOJ has filed as civil, rather than criminal, Sherman Act violations. The article further addresses whether these recent DOJ cases may be diluting the message that *per se* treatment has, traditionally, conveyed.

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Sorting The Collusive Goats from The Consciously Parallel Sheep

By Aaron M. Panner

This comment distinguishes oligopolistic price coordination – tacit collusion – from competitive conscious parallelism. The key characteristic of tacit collusion is that the success of a price hike depends on rivals' adoption of a parallel increase; otherwise, competitive losses will force the price leader to retract the increase. But certain price increases may reflect competitive pricing strategies designed to increase prices for customer segments and services for which demand is relatively inelastic. The success of such a strategy may not depend on rivals' response, and adoption of the strategy by competitors after it has proven successful may reflect competitive pressure, not its absence.

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The Political Economy of Excessive Pricing in The Pharmaceutical Sector in The EU: A Question of Democracy?

By Robert O'Donoghue QC

Until recently, excessive pricing as an antitrust violation in the EU was considered a dead letter – there had been no proceedings for over a decade. The last few years have witnessed a dramatic surge in such cases, almost exclusively in the pharmaceutical sector. This piece argues that in a market as highly regulated in the EU as pharmaceuticals, including on the pricing side, antitrust law is an inappropriate tool. The antitrust notion of a fair price – even assuming there is such a thing – is singularly unsuited for deciding what is essentially a political question as to how much the State should pay for prescription drugs. A proper assessment of this kind involves consideration of a range of economic and non-economic issues that go far beyond the relatively narrow consumer welfare focus of antitrust. But one can go further. As a matter of Treaty law, the EU has no competence over public health. As a matter of national law, each EU Member State has set up complex legislative machinery to give effect to its public health objectives in a manner appropriate for its own particular circumstances. Using antitrust law as a means to re-evaluate these decisions or replace them is inapposite and raises profound issues of democracy and constitutionality. If States want more, or different, regulation the democratic answer is to legislate and not do so by stealth using antitrust law.

WHAT'S NEXT?

Our August 2018 Antitrust Chronicle will focus on recent developments in **Vertical Mergers**.

ANNOUNCEMENTS

CPI wants to hear from our subscribers. In the remaining months of 2018, we will be reaching out to members of our community for your feedback and ideas. Let us know what you want (or don't want) to see, at: antitrustchronicle@competitionpolicyinternational.com.

CPI ANTITRUST CHRONICLE SEPTEMBER 2018 & OCTOBER 2018

The September 2018 Chronicle will focus on **Platform Competition and Antitrust**.

Our October 2018 Chronicle will feature articles from speakers at the **CRESSE Conference** taking place in Crete this summer.

Contributions to the Antitrust Chronicle are about 2,500 – 4,000 words long. They should be lightly cited and not be written as long law-review articles with many in-depth footnotes. As with all CPI publications, articles for the CPI Antitrust Chronicle should be written clearly and with the reader always in mind.

Interested authors should send their contributions to Sam Sadden (ssadden@competitionpolicyinternational.com) with the subject line "Antitrust Chronicle," a short bio and picture(s) of the author(s).

The CPI Editorial Team will evaluate all submissions and will publish the best papers. Authors can submit papers in any topic related to competition and regulation, however, priority will be given to articles addressing the abovementioned topics. Co-authors are always welcome.

CPI TALKS…

With Margrethe Vestager

Thank you, Commissioner Vestager, for granting this interview to CPI.

1. What have been the biggest differences between your life as a Danish Minister and a European Commissioner?

I have worked as a Danish politician for more than 20 years and as such as a law maker. So the biggest difference for me now is that I get to enforce the law.

2 For decades transatlantic cooperation has been a big priority for DG Competition. We now have a White House which seems to have a novel approach to many topics, including antitrust. What changes for DG Competition?

On both side of the Atlantic, we have a shared interest in smoothly cooperating in global cases, such as in the recent *Bayer/Monsanto* merger proceedings and we also have our best practices on cooperation in merger investigations. And there is a continued commitment to engage in policy dialogue, to better understand possible divergences. Our aim is also increased global convergence of procedural fairness standards, keeping in mind that the process towards that goal should include and be aligned with OECD/ICN work in this field.

3. The Commission's procedures are unique in the world of antitrust enforcement, and have been criticized over the years by practitioners, despite various changes and reforms. However, they have been consistently upheld by the courts and the Commission robustly defends them. Are there areas where you foresee procedural changes?

The EU Treaties provide for administrative antitrust enforcement rather than a judicial procedure. All Commission competition decisions can be challenged before the European Courts. Therefore we regularly reflect on our procedures. The 2011 Antitrust Best Practices Notice reflects a review of our procedures that enhanced transparency, interaction with parties and rights of defense. While we do not currently foresee changes, we continuously monitor whether there is a need for specific improvements to the Commission's procedures.

4. In the high-technology world, market developments can move faster than antitrust investigators. How can you intervene most effectively when due process, administrative thoroughness and judicial review each can take years? What has been your experience?

The question of speed in antitrust cases is very relevant, not only in high-tech markets, but also in other sectors. Nevertheless, effective intervention is not only fast, but also gets things right and respects rights of defense. One way in which we are trying to achieve this balance is by applying to other cases the cooperative approach that was used in the *ARA* decision.

ARA did cooperate with the Commission by acknowledging the infringement and thereby they ensured that the decision could benefit from administrative efficiencies, as well as by proposing a structural remedy. More specifically, ARA offered to divest a part of the household collection infrastructure that it owned. So the company could no longer exclude competitors from access to that infrastructure. This ensured that such an infringement cannot be repeated in the future.

5. Which of the Commission's decisions in the field of competition has given you most satisfaction?

Competition is not about a handful of cases that happen to get the attention from a wide audience. Competition is a system of law enforcement, and every part of the system has to function, to make sure the market works well for consumers. In the end, it comes down to making life a little fairer for 500 million Europeans. And showing them how Europe can make a difference to their lives.

6. The remarkable growth of national enforcement of competition law has had the effect of changing the Commission's enforcement diet. Are there areas where you might envisage intervening in "local" cases which present interesting questions of principle?

Usually, local cases are for national competition authorities. But the Commission can always intervene, in particular where a precedent needs to be set at the European level. Hence, local cases which present interesting questions of principle will always be discussed by national competition authorities and the Commission within the European Competition Network. When the effects of a local case are felt beyond national borders, the Commission will consider intervening, no matter the area.

7. You have a fascinating job. Can you think of a better one?

I am really fond of my job and I have always aimed at doing my job well rather than speculating in what could have happened or what lies ahead. So the short answer to your question would then be no!

LOOKING A GIFT HORSE IN THE MOUTH: HEIGHTENED SCRUTINY OF FOREIGN DIRECT INVESTMENT

BY RACHEL BRANDENBURGER & CHRISTOPHER HUTTON[1]

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I. INTRODUCTION

Although the global level of foreign direct investment fell in 2017, it remains very strong.[2] At the same time, protectionism appears to be on the rise. One of the ways in which this new wave of protectionism is manifesting itself is in an increase in the scrutiny of foreign investments, including screening measures or review mechanisms introduced or planned by many of the governments of the world's largest economies.

The enhanced scrutiny of foreign investments will inevitably be a factor for investors when making investment decisions, and risks deterring investments that would otherwise be made. Depending on the jurisdiction, many types of investment may be caught, including greenfield investments, asset or stock purchases, mergers and joint ventures. Investors planning cross-border transactions or investments, particularly those in certain sectors (including the defense and dual-use sectors), may now find that they need to navigate multiple foreign investment, as well as merger control, regimes. That can be complex and challenging, and preparation and early engagement with government stakeholders is essential.

That is not the only challenge created by the trend towards increased scrutiny of cross-border investments. Governments have challenges, as well as investors. Governments will have to navigate a course between scrutinizing foreign investment where that is considered necessary, and making sure that the nature and level of scrutiny does not create an overly hostile environment for inward investment. For those jurisdictions introducing, or enhancing, mechanisms to review foreign investments, the design of the regime will therefore be critical. It is in the interests of both governments and investors that those regimes work efficiently and effectively.

II. INCREASED SCRUTINY

There has been a clear trend towards governments strengthening national regimes for scrutinizing inward foreign direct investment. The scrutiny that foreign direct investments face will inevitably become increasingly prominent in investment decisions as new regimes are introduced, or existing regimes strengthened, across key jurisdictions.

A comprehensive survey of those changes across jurisdictions is beyond the scope of this article, but to illustrate the trend:

- All G7 countries have recently introduced, or plan to introduce, tighter rules designed to increase the scrutiny of foreign investments. These changes include, in the UK, the lowering of merger control thresholds in certain sectors to increase the scope for political intervention on public interest ground (effective from June 11, 2018),[3] and proposals to introduce a mandatory screening regime for foreign investment in specific industries. In France, there are proposals to expand rules on national security screening of foreign investments to cover additional sectors, including artificial intelligence and companies in the digital industry, and in Japan new rules include mandatory reviews of share transfers between foreign investors relating to unlisted Japanese companies, and tougher civil and criminal sanctions for non-compliance. Germany has also recently introduced changes that have tightened control over acquisitions of domestic companies by foreign investors. Most recently, in the U.S. on June 18, 2018 the Senate approved legislation expanding the jurisdiction of the Committee on Foreign Investment in the United States ("CFIUS"), including by allowing CFIUS to review (i) any non-passive foreign investment in a critical technology or critical infrastructure company; and (ii) certain changes to a foreign investor's rights in a U.S. company.

  To put this in context, in 2017, the G7 countries accounted for almost 60 percent of outward foreign direct investment, and over 30 percent of inward foreign direct investment. Changes to the review regimes in those jurisdictions will therefore impact a significant number of potential investments

- The European Commission has recently proposed a regulation establishing a framework for the review of foreign direct investment into the EU,[4] triggered by calls from France's President Macron and others. The proposals do not set out an EU-wide screening mechanism (except in relation to certain projects or programs with a "Union interest"), but rather provide for an enabling framework for the European

2 OECD, *FDI in Figures,* April 2018.

3 Hogan Lovells, *New UK foreign investment screening rules come into force,* June 18, 2018.

4 Proposal for a Regulation of the European Parliament and of the Council establishing a framework for screening of foreign direct investments into the European Union.

Commission and Member States to review and coordinate non-EU foreign investments on grounds of security and public order.[5]

Again, to put this in context, in 2017 the current 28 Member States of the European Union accounted for over 30 percent of outward foreign direct investment, and over 20 percent of inward foreign direct investment.

It is difficult to predict what proportion of global foreign direct investment will be reviewable under the new or expanded review or screening regimes in the future, as that will depend on a broad range of factors, including the identity of the jurisdictions, sectors and investors. It will also depend on the nature of the screening or review regimes in place – for example, in some jurisdictions the scrutiny of foreign investments will be automatic, whereas in others it will be a discretionary political decision.

However, even just taking the changes and proposed changes highlighted above, a significant and growing proportion of all foreign direct investment will either be subject to automatic scrutiny, or at risk of being subject to a discretionary political review. Will this have an impact on the level of foreign direct investment?

III. DOES INCREASED SCRUTINY HAVE AN IMPACT ON LEVELS OF FOREIGN DIRECT INVESTMENT?

The OECD recently reported that foreign direct investment fell by 18 percent in 2017 compared to 2016.[6] Even with that fall, flows of foreign direct investment in 2017 were still strong, according to the OECD, representing 1.8 percent of global GDP.

In today's complex global economy, it is not usually safe to draw a direct link between one trend and another. There are often many factors at play. It should also be recognized that foreign direct investment reviews have existed for decades in many key jurisdictions. It is nevertheless tempting to observe that the current fall in foreign direct investment flows comes at a time when protectionism in many forms, including the expanded scrutiny of foreign direct investment, appears to be on the rise. Also, importantly, those developments have sometimes been accompanied by strong rhetoric, including around foreign direct investment, which is likely to have created a chilling effect beyond that caused by any changes to the review rules themselves.

Again, the OECD figures allow for some interesting commentary on the impact that perception and uncertainty can have on inward foreign direct investment:

- For example, in the U.S. where some would argue that the rhetoric has been the strongest, and CFIUS is perceived as becoming increasingly interventionist, the OECD figures suggest that there has been a 39 percent fall in the level of inward investment flows.

- In the UK, the position appears to be even more pronounced. The OECD figures suggest that there was a 92 percent fall in inward investment flows between 2016 and 2017. There are probably many and complex reasons for this, including uncertainty caused by the result of the Brexit referendum. But it is likely that reports of behind-the-scenes government interventions in the context of some recent high profile transactions have created further uncertainty and mixed messages about the UK's openness for business, and contributed to this fall in inward investment.[7]

Although it is impossible to demonstrate definitively the impact of the trend towards stronger scrutiny on the level of foreign direct investment, it is something that, in our experience, investors factor into their decision making. Even where it is relatively easy to navigate a screening or review regime, and in reality only the most contentious and sensitive investments are likely to face detailed scrutiny, the existence of a review or screening regime can, of itself, send a message about whether, or the extent to which, foreign investment is welcome.

5 The supranational requirements of EU law may continue, however, to limit the ability of EU governments to intervene in such cases – see Brandenburger & Jones, *Protectionism or Legitimate National Interest? A European Perspective on the Review of Corporate Acquisitions by Foreign Purchasers,* CPI Antitrust Chronicle, 2014, vol. 10.

6 OECD, *FDI in Figures,* April 2018.

7 Reader, (2018) *Extending 'National Security' in Merger Control and Investment: A Good Deal for the UK? Competition Law International,* 14 (1).

IV. BE PREPARED

How should potential investors react to this increase in scrutiny? The short answer is: be prepared and, in particular, be prepared to engage.

To be prepared, investors need to be forewarned. From the outset, investors need to work with their advisers to establish whether, and where, a transaction or investment could trigger foreign investment screening or review. As with merger control notification requirements, foreign investment reviews can have a significant influence on the timing, structure and scope of a transaction – especially in those cases where reviews in multiple jurisdictions may be required. It is therefore important for investors to map out the risks and requirements, to avoid surprises, take views on risk, and develop engagement strategies to navigate multiple (and possibly conflicting) political sensitivities.

The latter point is particularly important. Early engagement is essential, not just as part of that risk-mapping exercise, but also to navigate the reviewing process (to the extent possible). In many cases, the need to engage (and who that engagement should be with) is clear. For example, proposed investments or transactions involving targets operating in sensitive industries, or as government contractors, are likely to be key candidates for in-depth review. Even where it is less clear who investors should speak to, initial engagement with government is advisable to avoid entering into a screening or review process completely cold. Proactive discussions with the relevant government departments and agencies may be advisable to identify whether substantive concerns will be raised, whether those concerns could put the investment in jeopardy or cause unacceptable delay, whether steps can be taken to address concerns without the need for an intensive review, and whether those steps are commercially acceptable.

Being prepared to navigate the process is not, however, enough. Screening or review requirements, and the uncertainty they can give rise to, may need to be addressed in any contractual arrangements as the parties negotiate to apportion the risks between them. This will likely include introducing additional conditions, precedent and commitments by the purchaser on obtaining approvals. This may require consensus between the parties as to which approvals are required before closing (which may be particularly contentious if notifications are not mandatory).

In summary, in order for investors to negotiate effectively, they need to be aware of the potential risks and possible outcomes from the outset.

V. WHAT SHOULD A SCREENING OR REVIEW REGIME LOOK LIKE?

Enhanced screening or review of foreign direct investment may also raise issues for governments. In establishing or strengthening regimes for the scrutiny of foreign direct investment, governments face a conundrum. This was neatly expressed by the UK government in its recent consultation on possible changes to the UK regime:

> Foreign direct investment brings considerable benefits to the UK economy: the injection of foreign capital, new jobs, ideas, talent and leadership…
>
> However Britain's rightly-praised openness to foreign investment also needs to be accompanied by appropriate scrutiny of the potential national security impacts of deals... The vast majority of investment into the UK's economy raises no national security concerns. However, we need to be alert to the risk that having ownership or control of critical businesses or infrastructure could provide opportunities to undertake espionage, sabotage or exert inappropriate leverage.[8]

Similar sentiments were expressed by the European Commission when it announced proposals to establish a framework for the screening of foreign direct investment.[9] In short, governments need to balance the desire to scrutinise foreign investment where that is considered necessary to protect national interests, against the need to encourage inward investment (or at least not discourage such investment by creating a perception of hostility to inward investment).

How this balance can be achieved will depend on the jurisdiction, the investments caught by the regime and, most significantly, what a particular jurisdiction considers to be "national interests" that need to be protected.

8 UK Department for Business, Energy and Industrial Strategy, *National Security and Infrastructure Investment Review,* October 2017.

9 Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions: *Welcoming Foreign Direct Investment while Protecting Essential Interests,* September 13, 2017.

However, there are some features of foreign direct investment review regimes that, we consider, are important to ensure that a hostile environment is not created, or seen to be created. In this regard, Article 6 of the European Commission's proposed regulation makes a valuable contribution, by identifying a number of key principles that provide a framework for any review mechanisms to be adopted by Members States, as do the G20 Guiding Principles for Global Investment Policymaking.[10]

A. Procedural Certainty

It would be naive to assume that the absence of a formal regime means that foreign direct investment is never the subject of government attention. Governments may be watching and willing to intervene if they consider that a specific inward investment could be damaging to the national interest (or the political interests of the government), even if there is no formal review regime. If governments routinely intervene even in the absence of a formal regime (or outside of an existing regime), the unpredictability and apparent arbitrariness of the intervention inevitably risks deterring potential future investors.

Starting from the basis that government attention to foreign direct investment is probably a fact of life – at least currently – there are therefore advantages to having an appropriate formal screening or review regime. The need for procedural certainty is reflected in the EU's proposed regulation, which states that:

> Member States' screening mechanisms shall be transparent... In particular, Member States shall set out the circumstances triggering the screening, the grounds for screening and the applicable detailed procedural rules (Article 6(1)).
>
> Member States shall establish timeframes for issuing screening decisions (article 6(2)).

Procedural certainty, especially certainty as to when a screening or review will be triggered, means that investors know what to expect, and within what timeframe. As highlighted above, if investors know what to expect, the uncertainty that could act as a barrier to investment is reduced. Even if the eventual outcome is uncertain, procedural certainty means that investors at least have a broad road-map to follow.

B. Accountability

Given the nature of the assessment, particularly in cases involving national security, most review regimes contain a degree of discretion or political input that means outcomes can never be fully predicted. It is therefore important that mechanisms are built in to review regimes to ensure that outcomes are not arbitrary.

This includes ensuring that such regimes should operate (and be seen to operate) in a non-discriminatory and non-arbitrary way in terms of both procedures and outcomes. To a certain extent, this flows from the points highlighted above. However, it goes further and requires ensuring that parties have the right to be kept informed, to make representations throughout the process, and for those representations to be heard by the final decision maker.

It also includes holding decision makers accountable. Again, the EU proposals acknowledge this, stating that "Foreign investors and undertakings concerned shall have the possibility to seek judicial redress against screening decisions of the national authorities" (Article 6(4)). As the G20 Guiding Principles for Global Investment Policymaking make clear, this is part of a wider imperative of ensuring legal certainty: "Investment policies should provide legal certainty and strong protection to investors and investments... Dispute settlement procedures should be fair, open and transparent, with appropriate safeguards to prevent abuse." The ability to challenge a final decision is necessary to assure potential investors that they will get a fair hearing. That reassurance comes where the avenues for challenge are truly independent, and the decision-making subject to full scrutiny – the ability to appeal to an independent body is therefore also important in this respect.

C. Focused Intervention

To avoid review regimes being used as a means to obtain commitments from, or information about, investors that are unconnected to the proposed investment, appropriate measures need to be put in place to ensure that any information provided by an investor is treated in an appropriate way. Briefly put, such regimes should be focused on the screening or review of foreign direct investment and should not be used for other collateral purposes.

10 G20 Trade Ministers Meeting Statement, Annex III: G20 Guiding Principles for Global Investment Policymaking - July 9-10, 2016.

Again, the European Commission's proposals acknowledge this in part by providing that: "Confidential information, including commercially-sensitive information, made available by foreign investors and undertaking concerned shall be protected" (Article 6(3)). What is meant by the term "protected" in this context is unclear, but we would suggest that it should mean that information disclosed as part of the review process should not be disclosed to any other parties (including government or other state agencies), or used by the relevant agency for any purpose other than the review itself.

However, the point goes further than the use or misuse of confidential information. Screening or review regimes should not expose investors to wider political scrutiny or challenge. It is also important that foreign direct investment review regimes should not facilitate the exercise of political influence in areas outside of the proposed investment.

VI. CONCLUSION

Foreign direct investment remains important to the global economy. Equally, it is inevitable that governments will be concerned to ensure that inbound investment does not harm their national interests. It is also inevitable that investors will be concerned by increased scrutiny, and the uncertainty that brings. But it is in the interests of both governments and investors to seek to ensure that investment flows continue.

It is therefore incumbent on those governments or supranational authorities designing changes to existing screening or review regimes, or creating new ones, to seek to make sure that those regimes do not create an overly hostile environment for investment, and to ensure as much certainty, transparency and even-handedness as possible within the regime.

Foreign direct investment is not a new phenomenon, and neither is its scrutiny. The fact that the scrutiny of foreign direct investment is becoming more prevalent need not cause undue anxiety, as long as the scrutiny is predictable, transparent and non-discriminatory, and as long as investors are well prepared to assess and navigate the screening and review regimes.

THE CAT WARNS ANTITRUST WATCHDOGS TO BE CAREFUL WHEN LOOKING AT EXCESSIVE PRICING

BY JAMES KILLICK & ASSIMAKIS KOMNINOS[1]

1 White & Case. The authors acted as co-counsel to Pfizer in the case. The views expressed are personal and do not necessarily represent those of the firm or any of its clients.

I. INTRODUCTION

In the last couple of years, there has been a trend for antitrust watchdogs around the world to investigate excessive pricing, especially in the pharmaceutical sector. Last year, the European Commission opened its first investigation into excessive pricing in the pharmaceutical sector into the prices of Aspen's cancer drugs. This followed on from an investigation by the Italian competition authority fining Aspen EUR 5.2 million in 2016 for the pricing of the same drugs. Similar cases were also pursued in South Africa. In the UK, the Competition and Markets Authority ("CMA") opened a number of investigations of which at least two are ongoing and adopted a decision imposing large fines on Pfizer and Flynn Pharma ("Flynn").

This outbreak of excessive pricing investigations reverses the orthodoxy of previous decades. There was for many years a broad consensus that decisions of companies to increase their prices would usually have long-term pro-competitive effects by creating incentives for new players to enter markets. Price increases could only amount to antitrust violations in very specific circumstances, such as in the presence of very high and long-lasting barriers to entry. Moreover, competition authorities focused on exclusionary abuses rather than on exploitative ones, which also helped ensure that excessive pricing cases were off most authorities' agendas.

The judgment of June 7, 2018 in which the UK Competition Appeal Tribunal ("CAT") found that the CMA misapplied the relevant legal test when finding that Pfizer and Flynn unfairly priced their epilepsy drug, explains why antitrust authorities need to be careful when looking at excessive pricing. Both the outcome of the case (the CAT annulled the CMA's finding of abuse) and the wording of the judgment send a clear signal that competition authorities can elect to bring excessive pricing cases but, at the same time, their decisions must be "soundly based on proper evidence and analysis" and respect the presumption of innocence.

II. BACKGROUND

Phenytoin sodium is a long existing treatment for epilepsy and is still used to treat approximately 10 percent of patients in the UK. It was for many years sold at very low prices when, in 2012, Pfizer transferred its marketing authorization for the capsule form of phenytoin sodium to Flynn. Pfizer continued to manufacture the capsules and supply them to Flynn, which then sold them to the National Health Services ("NHS"). Flynn de-branded (genericized) the drug so that it was no longer subject to the UK's voluntary pricing scheme (only branded drugs are covered by this scheme). Following this de-branding, Pfizer's price to Flynn increased considerably and Flynn also increased the price at which it sold the drugs to the NHS. As a result, Flynn's price to the NHS rose to between 2,300 percent and 2,600 percent of Pfizer's previous price to the NHS. However, the new Flynn price was benchmarked at 25 percent below the price of phenytoin sodium in tablet form (which contain the exact same active ingredient), a price that the NHS had been paying for many years.

Following the opening of an investigation in 2013, the CMA found in December 2016 both Pfizer and Flynn guilty of abusing their dominant positions in the narrowly defined manufacturing and distribution markets for phenytoin sodium capsules by excessively and unfairly increasing their prices. For this abuse, the CMA imposed fines of £84.2 million and £5.2 million on Pfizer and Flynn, respectively, and ordered them to reduce their prices. In contrast to some previous abuse of dominance cases in the pharmaceutical sector, the CMA's decision is not based on allegations of an exploitation of a regulatory loophole or on a combination of exclusionary and exploitative practices; rather, the CMA proceeded with a pure excessive pricing decision.

To determine whether Pfizer and Flynn's prices were excessive, the CMA compared the companies' costs with a theoretical benchmark of "cost plus 6%." Using this approach, the CMA concluded that the new price was first excessive and then unfair "in itself" because it exceeded this benchmark. While this "cost plus" test was the core of the CMA's reasoning under both excessiveness and unfairness, the decision also referred to (as regards unfairness) four subsidiary elements, namely: the fact that the drug was old, that the price was only increased when Pfizer sold the marketing authorization to Flynn, the impact this practice had on the NHS and customers' reactions. The CMA also noted that prices in other EU Member States were lower, without analyzing why in any detail.

Both Pfizer and Flynn appealed the CMA's decision before the CAT.

III. THE PREVIOUS EUROPEAN CASE LAW

Before looking at the CAT's reasoning, it is helpful to recall the seminal European judgment applying the prohibition of abuse of dominance to unfair pricing practices. In *United Brands*,[2] the European Court of Justice ("ECJ") held that a price can be unlawfully excessive where "it ha[d] no reasonable relation to the economic value of the product supplied" and assessed the prices using the following test:

(1) whether the difference between the costs and the price was excessive ("**excessiveness limb**"); and

(2) whether the price was either unfair (a) in itself or (b) when compared to the price of competing products ("**unfairness limb**").

While the judgment sets out the above two-stage test, it is often overlooked that the ECJ noted that "other ways may be devised […] of selecting the rules for determining whether the price of a product is unfair."

Very recently (and in fact after the CMA's Decision), the ECJ confirmed in *AKKA/LAA*[3] that comparing prices in different Member States was a valid alternative method, as long as varying socio-economic conditions (demand-side factors) were taken into account.

In his opinion in the same case, Advocate General Wahl underscored that there are a variety of different methods that could be deployed to determine whether a price is excessive and that one should not focus blindly on one of them only. Given that there is not one test that can be used in all situations, and given each test has its own weaknesses, he concluded that the proper approach is to "combine several methods" where possible, to avoid errors and to reach a reliable conclusion. AG Wahl considered that an abuse can be established where there is a "sufficiently complete and reliable set of elements which point in one and the same direction," such that "almost no doubt remains" that there was an abuse, given the presumption of innocence which applies in abuse of dominance cases.

IV. THE CAT ACCEPTED THE CMA'S NARROW MARKET DEFINITION AND FINDING OF DOMINANCE

The CAT upheld CMA's findings on market definition and dominance. Specifically, the CAT accepted that the relevant markets were defined as (i) the manufacture of Pfizer-manufactured phenytoin sodium capsules distributed in the UK (for Pfizer); and (ii) the distribution of Pfizer-manufactured phenytoin sodium capsules in the UK (for Flynn). The CAT agreed with the CMA that phenytoin sodium capsules from other manufacturers did not exert a sufficient competitive constraint on Pfizer and Flynn (notably on prices), to be included in the relevant market. The CAT also agreed that there was no evidence of competitive interaction between tablets and capsules.

The CMA based this conclusion mainly on the facts that (i) there was limited, if any, substitution between capsules and tablets during treatment; and that (ii) price increases of one category did not result in significant shifts in the volumes of the other.

While these conclusions are based on the particular facts (this is an epilepsy treatment with a narrow therapeutic index), it is nevertheless worth noting that the market is the narrowest conceivable one in a pharmaceutical context: capsules of a specific active ingredient made by one company.

2 Judgment of the Court of February 14, 1978, *United Brands Company and United Brands Continentaal BV v. Commission of the European Communities*, Case 27/76, EU:C:1978:22.

3 Judgment of the Court (Second Chamber) of September 14, 2017, *Autortiesību un komunicēšanās konsultāciju aģentūra / Latvijas Autoru apvienība v. Konkurences padome*, Case C-177/16, EU:C:2017:689.

V. THE CMA APPLIED THE WRONG METHODOLOGY WHEN FINDING EXCESSIVENESS AND UNFAIRNESS

The CAT set aside the CMA's conclusions on abuse of dominance, taking issue with the methodology used to find that Pfizer and Flynn's prices were excessive and unfair. According to the CAT, the CMA decision was vitiated by fundamental legal errors in this respect:

> The CMA's conclusions on abuse of dominance were in error. The CMA did not correctly apply the legal test for finding that prices were unfair; it did not appropriately consider what was the right economic value for the product at issue; and it did not take sufficient account of the situation of other, comparable, products, in particular of the phenytoin sodium tablet. This means that the CMA's findings on abuse of dominance in this case cannot be upheld.[4]

Specifically, the CAT took issue with the following aspects of the CMA's reasoning.

On **excessiveness**, the CAT took issue with the fact that the CMA relied almost exclusively on a theoretical "reasonable rate of return" to determine whether the prices were excessive, instead of looking at market dynamics influencing the capsules' price. According to the tribunal "the CMA's approach owe[d] more to a theoretical concept of idealised or near perfect competition, than to the real world (where normal, effective competition is the most that should be expected)." Importantly, it held that the CMA has "on the whole avoided making comparisons with other products or companies and made little significant attempt […] to place Pfizer's and Flynn's prices in their commercial context." In the Tribunal's opinion, *United Brands* and more recently Advocate General Wahl's opinion in *AKKA/LAA* did not support the idea that the "cost plus" method chosen by the CMA is sufficient for establishing excessive pricing if other methods were available.

On **unfairness**, the CAT held that the CMA wrongly relied on only one part of the *United Brands* test ("price unfair in itself") and did not properly assess the prices of meaningful comparators. The most obvious comparators in this case were phenytoin sodium tablets (Pfizer and Flynn sold capsules), which were sold to the NHS at considerably higher prices (>25 percent) than the price of the capsules – a price set by the Department of Health. This comparison was inconsistent with the CMA's claims of unfairness.

The CAT further criticized the CMA's decision for not sufficiently taking into account **economic value**, which is the point of departure used by the ECJ when defining the legal test in *United Brands*. As a result, the CMA should have taken into account non-cost related factors, such as patient benefits, and the nature of the product together with all the surrounding circumstances when evaluating the economic value of the drugs. It noted that "simple percentages expressed as absolute mark-ups are not sufficient."

The CAT noted that it is not possible for an authority to ignore a *prima facie* valid argument that a price is fair under one alternative test and proceed to finding an abuse solely on the basis of another alternative test. Admittedly, the authority does not have to show that both tests are fulfilled to find an infringement, but it must show that the arguments for fairness of the prices under one test do not undermine the finding of unfairness under another test.

The CAT then held that the CMA should have devoted more attention to the possibility that phenytoin sodium tablets could be a suitable comparator. The prices of other epilepsy drugs were also potential comparators, although the CAT said that these were of less relevance.

In the light of existing case law, the CAT set out the approach which, in its opinion, should be applied in these cases. This involved the following steps:

First, the authority should consider a **range of possible analyses**, reflecting market conditions and the extent and quality of the data that can be obtained, to establish a benchmark price, or range, that reflects the price that would pertain under conditions of normal and sufficiently effective competition.

Second, it should compare that price (or range) with the price that has been charged in practice and determine whether that is **excessive**. Only if the differential is sufficiently significant and persistent can the price be excessive. The authority should also consider the size and stability of that differential, the reasons for it, taking account of the fact that the conditions for excessive pricing will only usually occur where the market is protected from competition, or where there is regulatory failure and the relevant regulator has not intervened, as well as previous decisions and wider market conditions, including the evolution of pricing over time.

4 Judgment of the CAT of June 7, 2018, in Joined Cases 1275-1276/1/12/17, *Pfizer Inc and Pfizer Limited v. Competition and Markets Authority and Flynn Pharma v. Competition and Markets Authority*, [2018] CAT 11 at paragraph 4.

Third, if the differential is excessive, then the authority should consider whether the price is **unfair**. An authority can apply either alternative to judge unfairness (unfair in itself or unfair compared to competing products) but must give due consideration to any *prima facie* convincing argument that the pricing is actually fair under either alternative.

Fourth, if there is a finding of unfairness, the authority should assess the economic value of the product, and whether the price charged in practice bears no reasonable relation to it. The authority should also consider whether the dominant undertaking is reaping benefits that it would not reap under conditions of normal and sufficiently effective competition. These two criteria are a necessary part of finding an abuse.

And finally, **objective justification** should be considered.

The CAT also stressed the importance for the authority to keep in mind the **presumption of innocence** of the undertaking under investigation when it is going through these steps.

The CAT had the power to replace the CMA's conclusion on abuse with its own judgment, but it chose not to, because the failure of the CMA to investigate the relevant facts made it impossible for the CAT to take a position. Hence the CAT provisionally decided to send the case back to the CMA for further consideration in line with the judgment. Before making a final order to this effect, the CAT invited the parties to present their views on whether to remit the matter to the CMA and the scope of any such remittal.

VI. CONCLUSION

The CAT's judgment notes that "cases of pure unfair pricing are rare in competition law" and that "ex post price regulation through the medium of competition law presents many problems." Competition authorities should therefore be "wary of casting themselves in the role of price regulators" that carry the primary responsibility for price control. This follows similar warnings contained in the Opinion of Advocate General Wahl in the *AKKA/LAA* case. This judgment (together with Advocate General Wahl's Opinion) should therefore send a warning signal to the various competition authorities which have recently focused on excessive pricing cases.

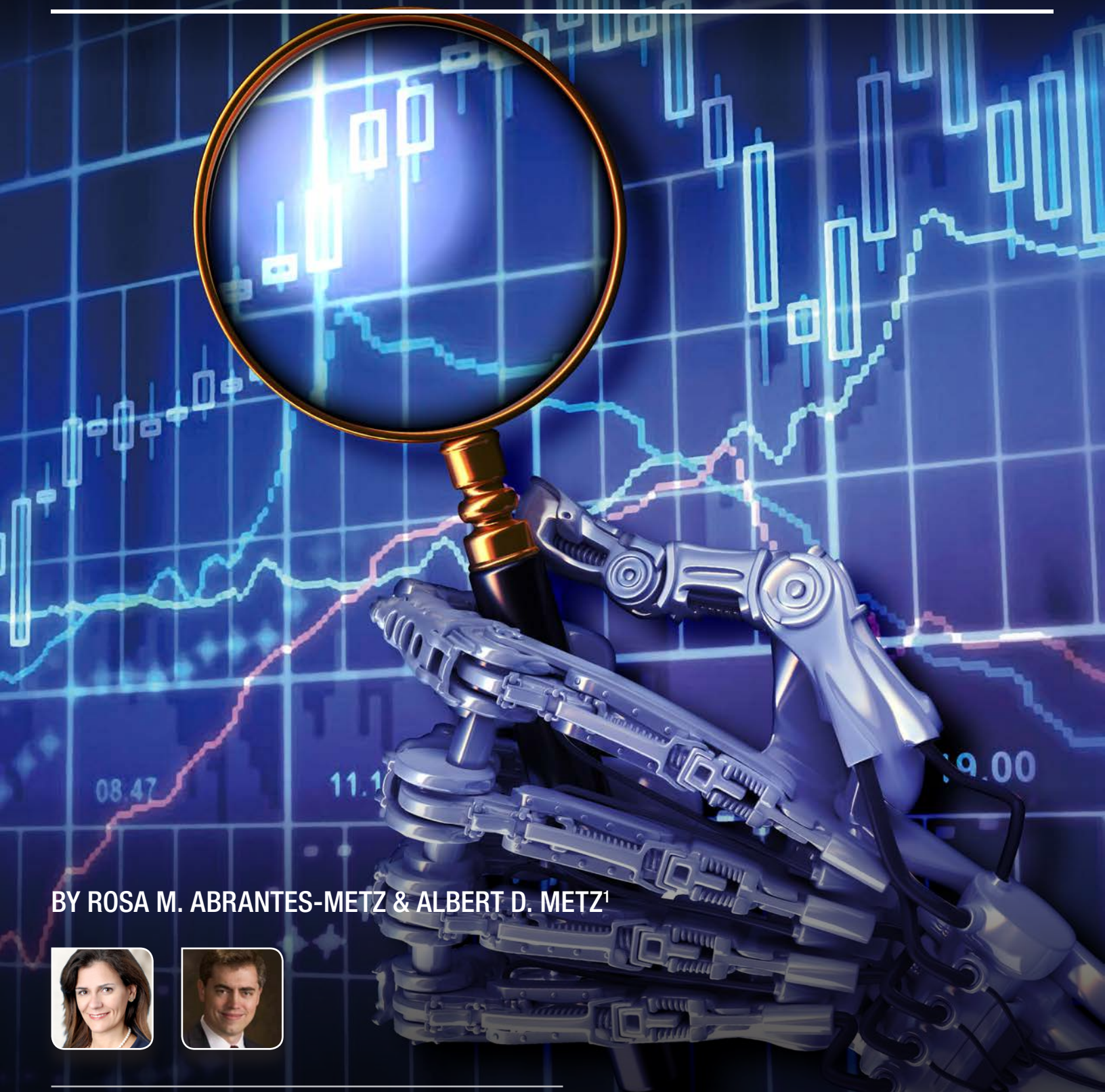
The judgment offers a warning to the authority that has invested the most effort in the last few years in pursuing excessive pricing cases, namely the CMA, which is currently undertaking at least two other excessive pricing investigations. The CMA confirmed that these investigations "may now be severely delayed" and that it was lodging an appeal because of the judgment's implications for future excessive drug pricing cases.[5]

The CAT's ruling does not prevent excessive pricing cases. Indeed, the CAT accepted that there was "no reason in principle why competition law cannot be applied [to unfair pricing practices], provided this is done on the correct legal basis and the analysis of evidence is sound." But the judgment does send a signal to the CMA (and other authorities) that they must do a careful and thorough job, bearing in mind the presumption of innocence. The guidance from the CAT is clear:

> In a matter as important for government, for the public as patients and as taxpayers, as well as for the pharmaceutical industry itself, the law should be clear and any decisions made should be soundly based on proper evidence and analysis. It is important that there is a good legal foundation for any future action in this area.

5 See the CMA's statement at: www.gov.uk/government/news/cma-considers-appeal-in-phenytoin-case and the confirmation that it has lodged an appeal at https://www.gov.uk/cma-cases/investigation-into-the-supply-of-pharmaceutical-products.

CAN MACHINE LEARNING AID IN CARTEL DETECTION?



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I. INTRODUCTION

Recent research has focused on complex antitrust issues stemming from corporate uses of "Big Data" and "Machine Learning" pricing algorithms. For instance, could the pricing algorithms of two different companies ever be said to be colluding with each other? In this short note we want to explore the other side of the coin and ask whether Big Data and Machine Learning could be used in the detection (and therefore in the defense) of cartels or other collusive, anti-competitive practices, and what, if anything, would be the role of the economist in such applications.

However one wants to label the application of sophisticated pattern-matching algorithms to large data sets – "data mining," Big Data, "artificial intelligence," "machine learning" – it is often considered to be a field of expertise separate and distinct from traditional economics or even econometrics. We will not spend time developing a taxonomy over these different concepts (that itself being an interesting and nuanced exercise) but will simply refer to these collective practices as "machine learning," a field (or maybe set of fields) often considered the domain of data scientists or computer scientists much more so than economists. Does this field have a home in cartel detection, and can (or should) the economist be excluded?

II. WHAT IS MACHINE LEARNING, AND HOW DOES IT DIFFER FROM ECONOMETRICS?

A useful if not rigorous definition of machine learning is that it is an application of minimal-structure pattern-matching algorithms to (i) infer a classification rule from a training data set and (ii) make useful predictions on new data.[2] Of course one need only dip one's toes in the water to see that this grossly over-simplifies the field, but it is fair to say that the primary goal of machine learning is to predict, or really classify. Is this an image of a human face or not? Is it an image of John Smith or not? Based on other users, what is the most helpful item to return if one enters "machine learning" in a search engine? From past experience, should we classify the demand for ride sharing to be "high" or "low" tomorrow afternoon (note that while there is a football game scheduled, severe thunderstorms are expected)?

These algorithms can be very powerful predictors. That is their purpose. It has been established both in the rich theory of machine learning and in the practice of our daily lives, where we are confronted with these applications constantly and, at this point, seamlessly. Of course they are not perfect, but very often they are extremely useful.[3]

If we compare this with traditional econometrics, which may be defined as the application of statistical methods to economic problems, we immediately see important similarities, but also important differences. Econometric methods have long been used for purposes of predicting outcomes. The numerical techniques associated with "linear regression" always produce what is known as the "best linear predictor" even when some of the assumptions of true regression analysis do not hold.

We are therefore not surprised to find these same numerical techniques in textbooks on machine learning. Whatever else we want to say about Big Data and its novelties, any data scientist who wants to restrict her hypothesis class to linear functions will end up doing the same numerical procedure that an econometrician would. What is typically not found in those textbooks is the discussion of the statistical and distributional theory of regression which, after all, is largely beside the point of the machine learner.

Yet this statistical theory, and not the value of prediction, is really the emphasis of econometrics. Under what conditions can we test a hypothesis about how an outcome Y relates to an explanatory variable X? That knowing X would allow us to form useful predictions of Y is sometimes seen as a "nice-to-have." Econometricians sometimes take pains to argue that measures of fit, like the well-known R2 statistic, are of secondary or even tertiary importance. An econometrician may declare success in his research even with a very low R2, because – quite rightly – a high fit isn't necessary for the theory to be correct. But for those interested in prediction, it is likely of primary importance. A famous aphorism among econometricians holds that if you want to predict the number of left shoes sold, get data on the number of right shoes sold. You will have a perfect prediction, but you will have explained nothing, you will have nothing to test, and in fact, the conditions necessary for regression are altogether violated!

2 Some might argue that to truly be a *learning* algorithm, the system must be able to update itself given new data. We consider it beyond the scope of this note to distinguish truly adaptive from static algorithms. The essential point for us is that the algorithm may be described with very little structure, and hence generally requires both large amounts of data and substantial computing power to train.

3 Indeed, the theory of learning often speaks in terms of "bounding" the "probability" that an algorithm will be "probably approximately correct."

III. COULD MACHINE LEARNING ENHANCE AND SUPPLEMENT THE EMPIRICAL DETECTION OF COLLUSION?

The general task of "collusion detection" (by which we mean any form of anti-competitive behavior detection) would seem to be a problem of prediction or classification to which machine learning would be well-suited. One could argue that all we seek to do is determine whether a certain arrangement should be classified as "collusive" or "not," just like classifying whether a given set of pixels should be classified as a "human face" or "not."

The answer is yes…but. A machine learning algorithm requires a training data set: to train a machine to detect collusion you have to show it what collusion looks like and also what non-collusion looks like. This training set must be of sufficient size (to guarantee, at least probabilistically, satisfactorily low error) and contain correct classifications of the outcomes as "collusive" or not. Does such a data set exist today – a data set with a sufficient number of cases of both collusion and not-collusion, with the necessary data on price, cost, and drivers of supply and demand – or will we have to wait for it? And how precise is the classification of "collusion?" Presumably it must be correct as to when it started and when it stopped. That is sometimes well-defined and known, and sometimes a bit murkier. What if the collusion starts with two, and then adds more members over time – when should we teach the machine to classify as the beginning of the collusion? What if one member is cheating slightly at some point? Should the classification of "collusion" be a continuous measure (the "strength" of the collusion) rather than a binary yes/no?

Finally, how useful would a classifier of "collusion" versus "not" truly be? The legal requirement is an identification of explicit collusion. Yet it is well understood that empirically, tacit collusion can be virtually indistinguishable from explicit collusion. What then would we train the machine on? If we ask it to classify "explicit collusion" from "not," that might very well be hopeless, since from the machine's point of view there would be data that was essentially identical yet classified as "not." The missing factor would be data on "did the parties explicitly agree to collude." That information, obviously, would allow the machine to separate cases of explicit from tacit collusion. But just as obviously, that is the only piece of information that would be required, and such a prediction rule – "classify the case as explicit collusion if there is an explicit agreement to collude" – is utterly useless in practice.

If the idea of having a universal machine algorithm which could detect "collusion" from "not," to say nothing of detecting explicit collusion from not, seems a bit out-of-reach today (and we stress that we don't know, even if our skepticism is showing a bit), other related problems may be attainable instead. For example, it might be possible to train a pricing algorithm on a set of data from one period and establish that it is not predictive of prices from a different period. If that is the case, can we say that we have detected collusion? The argument will come down to whether there was a structural break (e.g. the establishment of a price-fixing cartel), or whether it is just a bad pricing algorithm. As another example, one could perhaps train an algorithm to identify if prices become somewhat unresponsive to costs, or if prices become more tightly clustered across firms. In short, there may be classification problems circumstantially related to collusion which might be more susceptible to machine learning.

IV. THE ROLE OF THE ECONOMIST

To resort to a tired cliché, to the economist the use of machine learning and Big Data to detect a cartel is more evolutionary than revolutionary. Economists and regulatory agencies have been using data to empirically screen for cartels for years. As data sets have grown larger and computing power has improved, the popularity of non-parametric or "unstructured" techniques has increased. When the data crosses the line from large to Big, and when the methods become "machine learning," we will leave for others to sort out. But clearly there is a continuum, and economists have already been moving toward less structured, more data-intensive methods as they are able.

Almost two decades ago, before "Big Data" was a phrase, one of us worked with the compliance department of a services company to identify which managers were colluding to boost each other's performance evaluations. In this company, each manager was asked to rate the others, and it was suspected that a group had agreed to boost the scores they assigned within and depress the scores they assigned without. Given the anonymized data on how the managers had classified each other and other relevant characteristics such as their location, their area of practice, and others, and data for several years, we used a clustering algorithm to run over all possible combinations to find groups which minimized differences within and maximized differences without, and when such conduct may have started. It turns out that we identified exactly the set of managers which were suspected of colluding and the year when the practice started. If the same analysis were conducted today, a variety of new and interesting labels might be put on it. This only goes to show that the trend of empirical economics has long been moving towards the principles and methods of "machine learning."

Recall that as a numerical procedure, the techniques of linear regression familiar to the economist are also the techniques of best linear prediction familiar to the data scientist. As a practical matter, both will do exactly the same thing with the data to form their estimates. When an econometrician is conducting a regression analysis, the central question she faces is, what explanatory variables X to include? That is because

the central assumption which transforms the best linear predictor of Y from X into a *regression* of Y on X, complete with all the "hypothesis testing" and "statistical significance" arguments, is that all the other factors which influence Y not included in X are uncorrelated with X. In other words, the econometrician has to be comfortable that the "stuff left out" of the analysis is not correlated with the "stuff put in." We use economic theory as our guide to what to include in the regression.

But the variable selection problem is no less important to the data scientist concerned with predicting Y from X. To invoke another tired cliché, "garbage in, garbage out." An economist may be well positioned to identify which variables to include in X to get a useful prediction. Arguably the greater risk is that of over-fitting, that the computer may identify a spurious connection which happens to hold in the training dataset and assume that it will always hold. The best discipline against this over-fitting is the same sort of economic theory the econometrician uses.

This will be true even when we move beyond linear predictors into much more sophisticated classes. A special expertise is quite possibly needed to implement the method, or evaluate which methods are more appropriate for the task at hand, an expertise not always, or even often, found in an economist. But, at the same time, the expertise and judgment about what variables to include, and what form they should take, and what relationships to impose is likely found in an economist more so than a computer scientist.

V. COULD WE LEARN TO TRUST THE MACHINE?

A different question is whether market participants, agencies, and regulatory authorities would ever be able to trust the machine's classification, no matter what diagnostic evidence of its strength could be provided. That is because at its root, from the economist's perspective, an empirical approach to cartel detection is not only a predictive or classification problem: there is usually a testing component, on top of other qualitative considerations. By that we mean that it is more natural, more comfortable and arguably more appropriate to formulate the problem as a hypothesis to be *tested*: how likely is it that the observed data were generated from a collusive rather than a competitive dynamic?

Put this way, this sounds more like an econometric problem than a machine learning problem. What we will need at the end of the day is the ability to parse whether an observed change in price similarities among firms, to take one example, is statistically significant. We do not necessarily need any ability to predict a *future* change in price dispersion. While a machine learned classification algorithm could be enormously helpful in identifying which cases to research further, that further research would still be required, and that research is arguably better suited for an economist.

VI. CONCLUSION

The shoe example above highlights that predicting and understanding are not necessarily the same thing. We can sometimes predict one thing from another without understanding the nature of their relationship. We can also, under the right circumstances, develop an understanding of how one thing relates to another without being in a position to form a useful prediction.

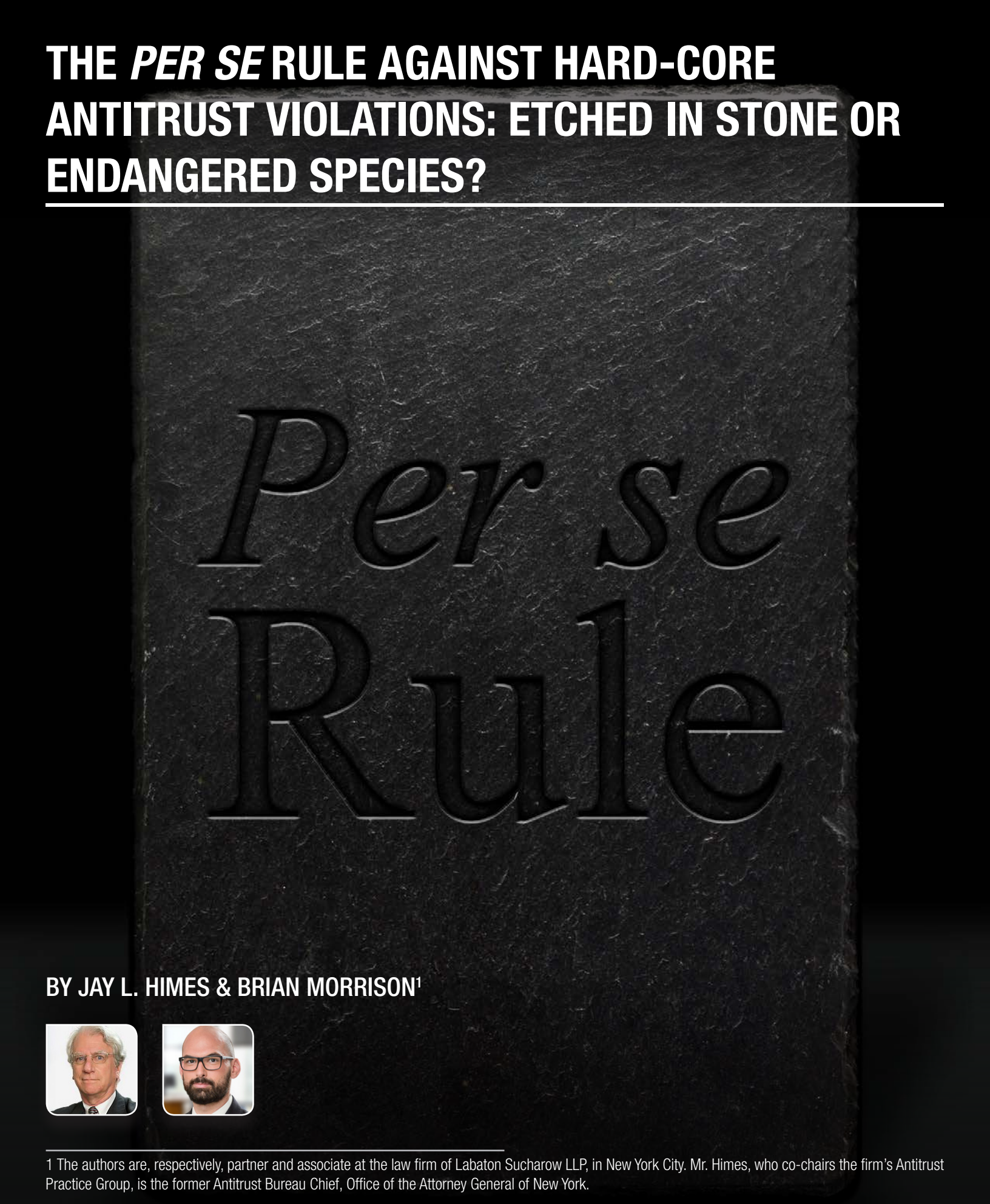
Empirical research into the existence or effectiveness of cartels is best seen as a mixture of both problems. On the one hand, it would be extremely useful to have flexible, powerful, relatively unstructured algorithms which make useful predictions or classifications of whether certain data patterns are anomalous and worthy of further investigation. We fully expect to see an increasing use of machine learning techniques as data on prices, costs, quantities, and fundamental demand and supply drivers become ever more available. The expertise and understanding of economists will be critical to avoid problems of over-fitting and reacting to spurious results.

The second problem will also always remain: the need to formulate the right statistically testable hypothesis. We will want to be able to make statements about the *likelihood* of one hypothesis versus an alternate. Here again the expertise of the economist will prove helpful, though again it may be augmented with the special skills of computational experts.

Empirical analysis has long been moving away from structured assumptions such as assuming things have one probability distribution or another and towards much more data-intensive methods. Kernel regression and isotonic regression are just a couple of examples of completely non-parametric methods which have long been in the econometrics literature. Their popularity has risen as the necessary data requirements are more easily satisfied.

In the end, analysis is best thought of as a continuum. With more data, there is less need to impose structure on the problem. The rapid developments in the theory and practice of artificial intelligence and machine learning are truly exciting. But in our view, they don't replace the need for economic theory and discipline. Instead, they just further expand the toolkit that an economist can bring to bear.

THE *PER SE* RULE AGAINST HARD-CORE ANTITRUST VIOLATIONS: ETCHED IN STONE OR ENDANGERED SPECIES?



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I. INTRODUCTION

A year ago last June, defense counsel in *United States v. Kemp & Associates, Inc.*[2] achieved a rare result in a criminal antitrust prosecution: a bench ruling by the District of Utah rejecting the *per se* rule's application to an admitted agreement by Kemp & Associates, Inc. ("Kemp") and a competitor to allocate customers — conduct traditionally held *per se* illegal under the Sherman Act. Finding that the case, which arose in the heir location industry, was "unique and unusual," the court held that the allocation arrangement charged in the indictment was subject to the rule of reason.[3] The court's decision effectively foreclosed criminal prosecution since, under established policy, the Antitrust Division declines to prosecute criminally antitrust violations "that require analysis under the rule of reason."[4] The district court's ruling is on appeal in the Tenth Circuit, and the impending decision could have significant ramifications for both criminal and civil antitrust actions.

After first overviewing the *per se* rule, we discuss *Kemp* further below. We then address the foreign currency exchange ("FX") criminal case, where the defense similarly challenged application of the *per se* rule. After that, we discuss several recent DOJ antitrust enforcement actions filed as *per se* civil, rather than criminal, cases even though the conduct alleged seemed like a hard-core violation. In concluding remarks, we sum up where we are, and where we could be going.

II. APPLICATION OF THE *PER SE* RULE TO ANTICOMPETITIVE CONDUCT

Sixty years ago, the Supreme Court wrote: "there are certain agreements or practices which because of their pernicious effect on competition and lack of any redeeming virtue are conclusively presumed to be unreasonable and therefore illegal without elaborate inquiry as to the precise harm they have caused or the business excuse for their use."[5] The *per se* rule thus establishes a "conclusive presumption that [a] restraint is unreasonable" under Section 1 of the Sherman Act.[6] To promote "business certainty and litigation efficiency," the rule eliminates the "costs of judging business practices under the rule of reason."[7]

Accordingly, adopting *per se* treatment invalidates agreements even if "a fullblown inquiry might have proved [the agreement] to be reasonable."[8] However, application of the "*per se* rule is appropriate only after courts have had considerable experience with the type of restraint at issue, . . . and only if courts can predict with confidence that it would be invalidated in all or almost all instances under the rule of reason."[9]

Thus, in *Maricopa*, Arizona alleged that fee schedules adopted by several medical associations amounted to illegal price-fixing conspiracies. The Supreme Court reversed the lower courts and applied the *per se* rule even though the judiciary arguably had "little antitrust experience in the health care industry."[10] The Court explained:

2 No. 2:16-cr-403 (D. Utah) ("*Kemp*"). Order on Defense Motion Regarding Application of Rule of Reason, *Kemp* (Aug. 28, 2017), ECF No. 96.

3 Motions Hearing Transcript at 49, 50-51, *Kemp* (June 21, 2017), ECF No. 88.

4 U.S. Department of Justice ("DOJ"), *Antitrust Division Manual* at III-12 (5th ed. updated Apr. 2018) ("In general, current Division policy is to proceed by criminal investigation and prosecution in cases involving horizontal, per se unlawful agreements such as price fixing, bid rigging, and customer and territorial allocations."), https://www.justice.gov/atr/division-manual (follow link). See also DOJ Antitrust Division and Federal Trade Commission, *Antitrust Guidance For Human Resource Professionals* 4 (Oct. 2016) ("agreements to fix product prices or allocate customers . . . have traditionally been criminally investigated and prosecuted as hardcore cartel conduct"), https://www.justice.gov/atr/file/903511/download.

5 *N. Pac. Ry. Co. v. United States*, 356 U.S. 1, 5 (1958). See also *United States v. Trenton Potteries Co.*, 273 U.S. 392, 397-98 (1927) (price fixing agreements "may well be held to be in themselves unreasonable or unlawful restraints, without the necessity of minute inquiry whether a particular price is reasonable or unreasonable as fixed").

6 *Arizona v. Maricopa Cty. Med. Soc'y*, 457 U.S. 332, 344 (1982) (categorizing price-fixing agreements as unlawful *per se*).

7 Id. at 343.

8 Id.

9 *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 551 U.S. 877, 886-87 (2007).

10 *Maricopa*, 457 U.S. at 349.

> [T]he argument that the *per se* rule must be rejustified for every industry that has not been subject to significant antitrust litigation ignores the rationale for *per se* rules, which in part is to avoid "the necessity for an incredibly complicated and prolonged economic investigation into the entire history of the industry involved, as well as related industries, in an effort to determine at large whether a particular restraint has been unreasonable—an inquiry so often wholly fruitless when undertaken.[11]

Likewise, the Court rejected the argument that *per se* treatment was inappropriate because the agreements at issue were "alleged to have pro-competitive justifications."[12] The Court further explained that the "anticompetitive potential inherent in all price-fixing agreements justifies their facial invalidation even if procompetitive justifications are offered for some."[13]

As *Maricopa* reiterated, horizontal price-fixing conspiracies are *per se* illegal under the Sherman Act. Similarly, geographic and customer allocations, as well as bid-rigging, are *per se* illegal.[14] The list of *per se* conduct has, of course, shrunk in recent years.

III. THE ANTITRUST DIVISION'S PROSECUTION OF KEMP'S CUSTOMER ALLOCATION AGREEMENT

A Utah-based company, Kemp provides services to potential heirs to intestate estates who are unaware of their possible inheritance. The company locates potential heirs using available public records and then contacts them, offering to develop evidence to prove their claims against the estate. In exchange for its services, Kemp charges a contingent fee based on the heir's recovery. Other companies in the industry operate similarly. Thus, a potential heir may receive multiple offers from different companies at different contingency fee rates. Of course, if multiple companies identify the same heir, those companies would be expected to compete on price by offering lower contingency fee rates than their competitors, or another service arrangement entirely.

In 2016, a grand jury empaneled in the District of Utah indicted Kemp and one of its executives on violating Section 1 of the Sherman Act, 15 U.S.C. § 1. According to the indictment, in an effort to suppress and eliminate competition in the heir location industry, Kemp conspired with a competing company to allocate customers. The owner-president of the competitor previously pled guilty to the alleged conspiracy.[15]

In summary, Kemp and one of its competitors allegedly agreed that if each identified the same potential heir, the first company to contact the heir would also be allocated any additional remaining heirs to that same estate. In exchange, the second company would receive a portion of the first company's contingency fee and simultaneously agree not to compete for any business with that same estate. Therefore, under the conspiracy, the two companies were able to allocate customers at noncompetitive contingency fee rates, while splitting the fee paid.

Kemp filed a motion seeking an order that the rule of reason, rather than the *per se* rule, applied to the case. At oral argument in June 2017, the court ruled that Kemp's conduct was subject to the rule of reason. Subsequently, in a written decision the court denied the DOJ's motion to reconsider. That decision, together with the earlier hearing transcript, set out the court's reasoning. Denying *per se* treatment, the court focused on: (1) the "relatively obscure industry," (2) the "unusual manner of [defendants'] operation," and (3) the "small number" of affected customers.[16] The court further explained that:

- The case is "unique and unusual."
- It "doesn't affect a very large part of our society."
- "[I]t's just very narrowly focused," and "does not . . . fit like [the court] would like to see cases fit" within the reach of the Sherman Act.[17]

11 Id. at 351 (quoting *N. Pac. Ry. Co.*, 356 U.S. at 5).

12 Id.

13 Id.

14 See, e.g. *Palmer v. BRG of Ga., Inc.*, 498 U.S. 46 (1990) (per curiam) (a geographic market allocation scheme is *per se* unlawful); *United States v. Green*, 592 F. 3d 1057, 1068 (9th Cir. 2010) (bid rigging is *per se* unlawful) (citing authorities).

15 Order, *United States v. Blake*, No. 1:16-cr-25 (N.D. Ill. Mar. 8, 2016), ECF No. 21.

16 Order on Defense Motion Regarding Application of Rule of Reason, supra note 2, at 3.

17 Motions Hearing Transcript, supra note 3, at 49.

These considerations, the court explained, made the case better-suited for rule of reason analysis, thereby affording Kemp an opportunity to present at trial potentially procompetitive effects arising from the underlying agreement that the DOJ charged was an unlawful conspiracy.

The DOJ appealed to the Tenth Circuit, arguing that the district court ignored controlling precedent holding that a customer allocation scheme is *per se* illegal, regardless of the individual circumstances or the nature of the industry.[18] The DOJ relied on several appellate decisions, including ones from both the Supreme Court and the Tenth Circuit, which establish that an agreement among horizontal competitors to allocate customers is a *per se* Section 1 violation.[19] The DOJ also asserted that the district court's holding "threatens to undermine the government's ability to prosecute antitrust conspiracies that have long been condemned as *per se* illegal."[20]

Kemp countered that while a "customer allocation is, in certain forms, *per se* unreasonable," its own situation was unique.[21] Kemp argued that it "negotiated a complicated agreement that governed a very limited subset of estates and used profit sharing to incentivize efficiency."[22] In consequence, in Kemp's view, the agreement at best had pro-competitive effects, and at worst had a *de minimis* effect on customer pricing.[23] Accordingly, Kemp contends that the rule of reason is, as the lower court held, the appropriate way to analyze the lawfulness of its agreement.[24]

IV. THE RULE OF REASON ARGUMENT RE-APPEARS IN THE SOUTHERN DISTRICT OF NEW YORK

More recently, the DOJ fared better in a criminal Section 1 case charging individual traders in the FX market with conspiring to fix prices and rig bids and offers for Euros and U.S. Dollars.[25] The traders, employees at three global banks, were competitors who purchased and sold Euro-Dollar instruments in the FX market. The indictment described in detail how, by "working together instead of competing," the traders manipulated FX prices.[26] By sharing information about their trading intentions and market positions, the traders were able to move FX Euro-Dollar prices in directions favorable to their account positions.

The traders moved to dismiss the indictment, arguing (among other points) that the *per se* rule was inapplicable to their conduct.[27] They maintained that: (1) the DOJ failed to adequately allege they were horizontal competitors in the FX spot market (essentially because they both bought and sold — sometimes to each other); (2) the courts lacked sufficient experience with trading practices in the FX market to permit the traders' conduct to be condemned under the *per se* rule; and (3) their trading conduct was not plainly anticompetitive on its face. More specifically, on application of the *per se* rule the traders argued that the FX market is "enormous, sophisticated, and decentralized" — "a hectic, modernized bazaar, comprising an unlimited number of participants simultaneously conversing, negotiating, and transacting with each other."[28] Because a "constant stream of communication among traders" allows for the most efficient FX trading, information sharing as part of a conspiracy to fix prices and rig bids, the traders maintained, simply cannot be *per se* illegal under the Sherman Act.[29]

18 Brief of Plaintiff-Appellant at 11, *United States v. Kemp & Associates, Inc.*, No. 17-4148 (10th Cir. Jan. 3, 2018).

19 Id. at 3, 11, 27 (citing, among other authorities, *Palmer* and *United States v. Suntar Roofing, Inc.*, 897 F.2d 469 (10th Cir. 1990)).

20 Id. at 27.

21 Brief of Defendant-Appellant at 42, *United States v. Kemp & Associates, Inc.*, No. 17-4148 (10th Cir. Feb. 2, 2018).

22 Id. at 43.

23 Id. at 48.

24 Although not the subject of this paper, Kemp also successfully moved to dismiss on the ground that the five-year statute of limitations had run. Briefly, having fleeced the heirs, Kemp and its conspirator had to await estate administration before receiving a fee. In the lower court's view, dividing the loot as fees were paid periodically did not continue the conspiracy for limitations purposes. This ruling is similarly on appeal to the Tenth Circuit.

25 *United States v. Richard Usher, et al.*, No. 17-cr-19 (S.D.N.Y.) ("*Usher*").

26 United States' Opposition to Motion to Dismiss Indictment at 5, *Usher* (Dec. 8, 2017), ECF No. 72.

27 Traders' Memorandum of Law in Support of Defendants' Motion to Dismiss Indictment at 8, *Usher* (Nov. 17, 2017), ECF No. 63

28 Id. at 12.

29 Id. at 13.

The DOJ countered that the violations charged in the indictment were similar to those prior cases where courts held that price fixing and bid rigging allegations pleaded conduct subject to *per se* treatment. For example, in a civil FX case brought by private plaintiffs, the court ruled that the complaint "'plausibly allege[d] a price-fixing conspiracy among horizontal competitors,'" a *per se* violation of the Sherman Act, since the defendants colluded to manipulate benchmark prices of currencies in the FX market.[30] The DOJ also relied on a decision in the ISDAfix litigation, where a court similarly held that the dealer banks' conspiracy to manipulate ISDAfix benchmark prices was *per se* illegal.[31] Accordingly, courts had previously held that trading activity in complex financial markets was unlawful *per se*, and, as the DOJ argued, this criminal case was no different.

The court denied the traders' motion to dismiss the indictment. On application of the *per se* rule, the court explained:

> Price-fixing conspiracies which entail agreements among competitors formed for the purpose and with the effect of raising, depressing, fixing, pegging, or stabilizing the price are (clearly) *per se* restraints of trade under the Sherman Act. The Indictment in this case plainly alleges that Defendant competitors agreed to coordinate their bidding, offering, and trading (including their agreement to refrain from bidding, offering, and trading) [at certain times in market trading].[32]

Quoting the Supreme Court in *Maricopa* — "'We are equally unpersuaded by the argument that we should not apply the *per se* rule in this case because the judiciary has little antitrust experience in the health care industry'"[33] — the *FX* court rejected the argument that *per se* treatment was inappropriate because the FX market was unique or complex or large. It was, instead, enough that "courts have experience assessing price fixing."[34]

V. *PER SE* VIOLATIONS IN DOJ CIVIL ENFORCEMENT CASES

Despite strong evidence of price fixing or bid rigging, in three recent cases the DOJ, while pleading a *per se* violation, nevertheless "went civil." These DOJ decisions to refrain from criminal prosecutions may well be fueling defense efforts to argue for rule of reason treatment in criminal cases.

The *electronic books* ("*e-books*") case against Apple and five book publishers is a leading example. The DOJ (together with many states) filed a civil antitrust action, alleging that the companies conspired to fix retail prices of newly released and bestselling e-books.[35] The publishers met in smoke-filled rooms (aka private dining rooms in fancy Manhattan restaurants), and they "hashed over their meetings with Apple with one another."[36] And "Apple kept the Publisher Defendants apprised about who was in and how many were on board."[37] For a hub-and-spoke price fixing conspiracy, this one was about as good as it gets. There was even one publisher that refused to participate; the others either had more aggressive (or less able) antitrust lawyers or were simply willing to roll the dice.

The five conspiring publishers all settled quickly — three contemporaneously with the DOJ's initial complaint. After a bench trial against Apple, the district court wrote that there was "very little dispute about many of the most material facts."[38] Among the facts:

- Apple knew that the publishers wanted to raise e-book prices above the $9.99 e-book price set by Amazon;
- Apple assured the publishers that it "was willing to work with them to raise those prices, suggesting prices such as $12.99 and $14.99."

30 United States' Opposition to Motion to Dismiss Indictment at 7, *Usher*, ECF No. 72, supra note 25 (quoting *In re Foreign Exch. Benchmark Rates Antitrust Litig.*, 74 F. Supp. 3d 581, 592, 596-97 (S.D.N.Y. 2015)).

31 Id. at 7-8 (citing *Alaska Elec. Pension Fund v. Bank of Am. Corp.*, 175 F. Supp. 3d 44 (S.D.N.Y. 2016)).

32 *United States v. Usher*, No. 17 Cr. 19, 2018 WL 2424555, at *4 (S.D.N.Y. May 4, 2018) (citation omitted).

33 Id. (quoting *Maricopa*, 457 U.S. at 349).

34 Id.

35 *United States v. Apple, Inc., et al.* No. 1:12-cv-2826 (S.D.N.Y.).

36 *United States v. Apple, Inc.,* 952 F. Supp. 2d 638, 651, 658 (S.D.N.Y.).

37 Id. at 673.

38 Id. at 647-48.

- Apple and the publishers entered into an agreement on the eve of Apple's iPad launch to divide new release e-books "among price tiers." As part of the agreement, the publishers would bear a "severe financial penalty . . . if they did not force Amazon and other retailers similarly to change their business models and cede control over e-book pricing to the Publishers."

- As a result of Apple's efforts, "the prices in the nascent e-book industry shifted upward, in some cases 50% or more for an individual title." The conspiracy had the immediate impact of forcing Amazon to abandon its $9.99 flat price for e-books.[39]

The court found "overwhelming evidence" that the publishers had entered into a horizontal price-fixing conspiracy to raise the prices of certain e-books, and as part of that, "Apple not only willingly joined [that] conspiracy, but also forcefully facilitated it."[40] The court specifically rejected Apple's attempts to evade the *per se* rule against horizontal price fixing, reasoning that the agreement between Apple and the publishers — although involving companies at different levels of the supply chain — was precisely the type of conduct condemned by the *per se* rule.[41] The Second Circuit affirmed, albeit with a dissent. As the majority succinctly put it: "Apple consciously orchestrated a conspiracy among the Publisher Defendants."[42]

The mountain of liability evidence that the DOJ offered at trial could surely have been adduced in a grand jury investigation. The DOJ's apparent decision to refrain from criminal prosecution here appears bizarre — understandable, perhaps, only because Apple's brand recognition and consumer loyalty would have presented uncommon challenges in a criminal case. Bearing in mind the risk of a hung jury, prosecutorial discretion may have been thought the better part of litigation valor.[43]

The DOJ took a similarly peculiar course of action in its 2010 high-tech "no-poaching" cases, choosing to file civil enforcement actions against six high technology companies rather than criminally prosecuting any company or executive.[44] There, the DOJ announced that six companies — Adobe, Apple, Google, Intel, Intuit and Pixar — had entered into "no solicitation agreements for employees," whereby companies could not "directly solicit[] each other's employees."[45] Simply put, the tech company buyers agreed not to compete for employee labor.

If the input subject to a non-compete agreement by purchasers were a raw material offered by their suppliers, a criminal prosecution would seem inevitable. Buyer conspiracies directed to sellers have long been illegal *per se*: "the agreement is the sort of combination condemned by the Act even though the price-fixing was by purchasers."[46] Yes, sometimes collective action by purchasers may call for close inquiry. But this was not one of those situations. The tech companies were not running a coop that negotiated a common input price for the benefit of all members.[47] Nor were they acting collectively to create a new product in the market.[48] They were carving up the job opportunities available to industry employees.

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39 Id.

40 Id. at 691.

41 Id. at 694; see also *United States v. General Motors Corp.*, 384 U.S. 127 (1966) (*per se* violation where a manufacturer and auto dealers agreed to eliminate vehicle sales through "discount houses"); *Klor's Inc. v. Broadway-Hale Stores, Inc.*, 359 U.S. 207 (1959) (*per se* violation where manufacturers, distributors, and a retailer agreed not to sell to a competing retailer).

42 *United States v. Apple, Inc.*, 791 F.3d 290, 316 (2d Cir. 2015).

43 For a fuller discussion, see Himes & Hollywood, *New Toys For Old Games: eBooks – iTroubles*, CPI Antitrust Chronicle (June 2012).

44 E.g. *United States v. Adobe Systems, Inc., et al.*, No 1:10-cv-1629 (D.D.C.).

45 Press Release, DOJ, Justice Department Requires Six High Tech Companies to Stop Entering into Anticompetitive Employee Solicitation Agreements (Sept. 24, 2010), https://www.justice.gov/opa/pr/justice-department-requires-six-high-tech-companies-stop-entering-anticompetitive-employee.

46 *Mandeville Island Farms, Inc. v. Am. Crystal Sugar Co.*, 334 U.S. 219, 235 (1948). See also *United States v. Brown*, 936 F.2d 1042, 1045 (9th Cir. 1991) (affirming Sherman Act conviction of buyers for conspiring to allocate billboard space bid on).

47 *Nw. Wholesale Stationers, Inc. v. Pac. Stationery & Printing Co.*, 472 U.S. 284, 295 (1985) ("Wholesale purchasing cooperatives . . . are not a form of concerted activity characteristically likely to result in predominantly anticompetitive effects, [but instead] would seem to be designed to increase economic efficiency and render markets more, rather than less, competitive." (citation and quotations omitted)).

48 *Nat'l Collegiate Athletic Assn. v. Board of Regents of Univ. of Okla.*, 468 U.S. 85, 101 (1984) ("[T]his case involves an industry in which horizontal restraints on competition are essential if the product is to be available at all."); *Broad. Music, Inc. v. Columbia Broad. Sys., Inc.*, 441 U.S. 1, 21-22, 23 (1979) (The "blanket license" challenged as price fixing "is, to some extent, a different product. . . . [C]ooperative arrangements are also not usually unlawful . . . where the agreement . . . is necessary to market the product at all.").

Is there any serious doubt that the tech companies dodged a bullet when they entered into civil consent decrees?

The DOJ subsequently announced as much. In October 2016, together with the FTC, the DOJ issued "Antitrust Guidance for Human Resource Professionals."[49] The Guidance states explicitly that the DOJ "intends to proceed criminally against naked wage-fixing or no-poaching agreements."[50] Yet, having laid down a marker, the next time the DOJ encountered a buyer conspiracy to refrain from competing for employees, the Division again filed a civil suit because it seemingly was persuaded that the conspiracy had ended before the Guidance was issued.[51]

The irony here should not be lost on any of us. Upon enactment of the Sherman Act in 1890, a principal target for its use was not so much the trusts, but labor organizations instead.[52] More than a hundred years later, there apparently is a debate over whether to condemn as *per se* illegal collective employer action to refrain from competing for employees.

The DOJ similarly chose to proceed civilly against a bid rigging scheme involving federal auctions of leases to explore and develop natural gas resources in Colorado.[53] Under the scheme, the two primary auction bidders agreed to refrain from competing on upcoming auctions. Rather, one company would bid during the auction and, if successful, "assign a fifty percent interest in the acquired leases" to the other.[54] This conduct looks, feels, and smells like a criminal violation — and the victims here were U.S. taxpayers. But the DOJ filed a civil complaint and immediately settled with the defendants. To make matters worse, the settlement seemed so ineffectual that the district court declined to approve it, thus requiring renegotiation before the court signed off.[55]

Viewed collectively, these cases bespeak unwarranted DOJ hesitancy to bring criminal antitrust prosecutions against hard-core violations. When the DOJ itself foregoes criminal prosecution in these sorts of cases, its decision sends a message not only to the business community and antitrust bar, but also to the courts: maybe the *per se* rule — even when applied to price fixing, bid rigging and market allocation — isn't so clear after all. The very "no-poach" euphemism sets a tone. If we expect the courts to respond as they should, we ought to be calling the conduct what it is: an unlawful conspiracy to allocate suppliers — a federal felony under the Sherman Act. Although fewer *per se* antitrust violations remain than in years past, *per se* cases are — or at least they should be — bad, really bad. Not sort of bad.

Indeed, in the Second Circuit, Apple's rule of reason trial defense had traction with Circuit Judge Jacobs, who dissented. After reminding that "the *per se* rule has been in steady retreat," Judge Jacobs asserted that a "vertical relationship that facilitates a horizontal price conspiracy does not amount to a *per se* violation."[56] But that conclusion flies in the face of *Interstate Circuit, General Motors*, and *Klor's*, to name just a few authorities.[57] Applying the rule of reason nonetheless, the dissent found Apple's conduct to be pro-competitive.

The DOJ's reluctance to bring criminal antitrust charges can have ramifications for private follow-on civil litigation as well. When the DOJ brings a *per se* case civilly, there is, again, a dilutive or blurred message that defendants can seek to exploit and that private plaintiffs, therefore, may need to eviscerate. There are plenty of *Twombly, Comcast, Matsushita,* and *Daubert* hurdles that private plaintiff litigants must already overcome. Industry or conduct-specific defenses that aren't supposed to be legally cognizable at all under the *per se* rule should not become another one.

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49 DOJ/FTC Antitrust Guidance for Human Resource Professionals, supra note 4.

50 Id. at 4.

51 See Press Release, DOJ, Justice Department Requires Knorr and Wabtec to Terminate Unlawful Agreements Not to Compete for Employees (Apr. 3, 2018), https://www.justice.gov/opa/pr/justice-department-requires-knorr-and-wabtec-terminate-unlawful-agreements-not-compete.

52 See, e.g. *In re Debs*, 158 U.S. 564 (1895) (affirming a criminal contempt order enforcing an injunction sought by the United States and issued by the lower court under the Sherman Act); Hamilton & Till, Antitrust In Action 79 (TNEC 1941) (During the first 50 years of the Sherman Act's life "less than 110 individuals altogether . . . have served prison sentences. And, without a single exception, all have been trade union officials or racketeers.").

53 *United States v. SG Interests I, Ltd., et al.*, No. 1:12-cv-0395 (D. Colo.) ("*SG Interests*").

54 Complaint at 2, *SG Interests* (Feb. 15, 2012), ECF No. 1.

55 Order Denying Motion for Entry of Final Judgment at 11, *SG Interests* (Dec. 12, 2012), ECF No. 20. The court criticized the settlement as "nothing more than the nuisance value of this litigation [which] is not in the public interest." Id.

56 *Apple,* 791 F.3d at 345 (Jacobs, C.J., dissenting).

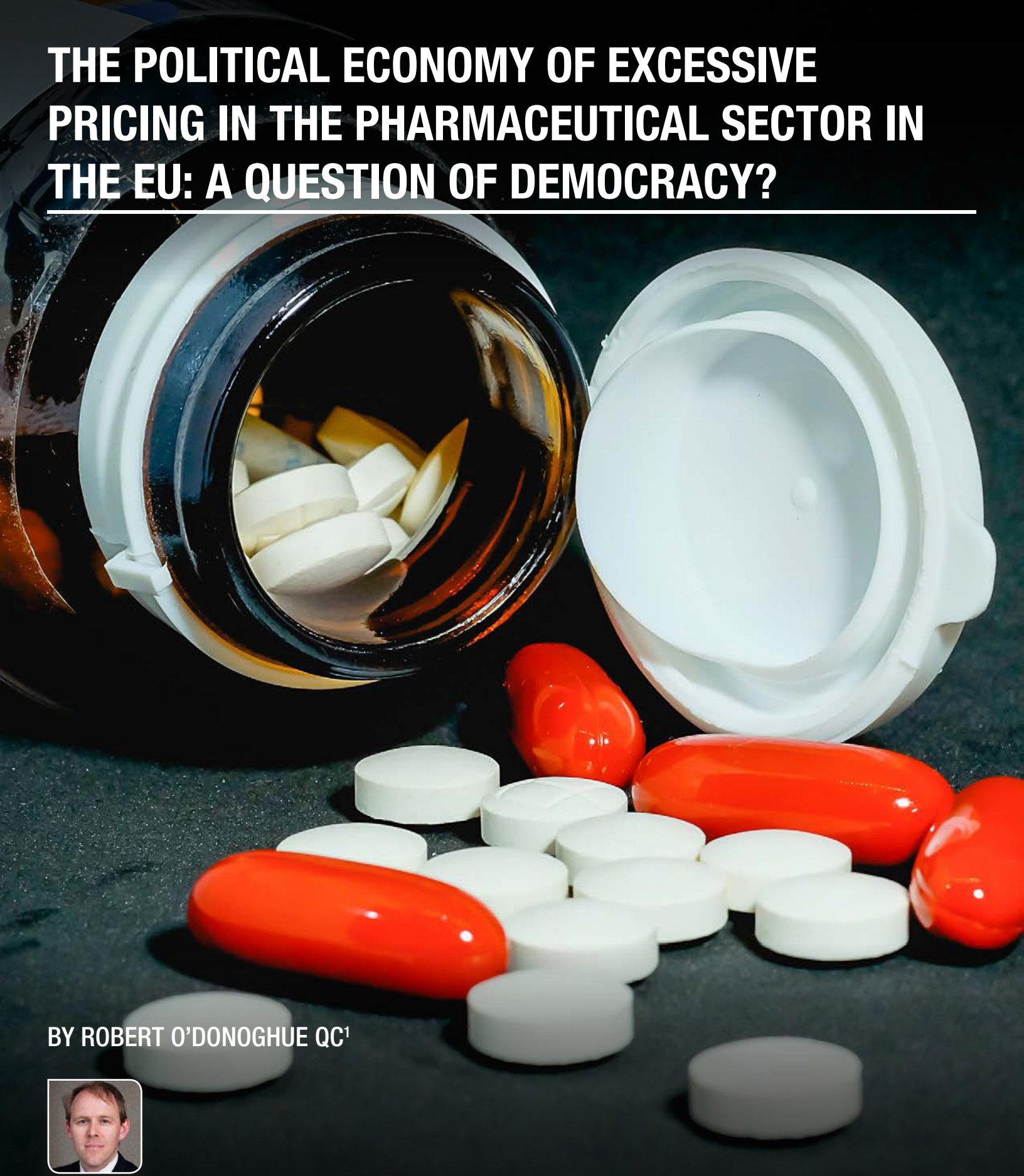
57 See id. at 320, 322-23 (citing *Interstate Circuit v. United States*, 306 U.S. 208, 222 (1939); *General Motors*, 384 U.S. at 145; *Klor's*, 359 U.S. at 212-13).

VI. THE *PER SE* RULE GOING FORWARD

Litigants and counsel should pay close attention to the upcoming Tenth Circuit decision in *Kemp*. The outcome there could have significant ramifications for future antitrust actions. If the Tenth Circuit declines to apply the *per se* rule, despite facts charging an obvious agreement to allocate customers, those investigated criminally by the DOJ can be expected to argue increasingly that their own "unique and unusual" circumstances preclude criminal charges — and if that effort fails at the charging stage, to renew the argument before the court after indictment.

To its credit, the DOJ is fighting tooth and nail to overturn the lower court's ruling in *Kemp*. But even if it succeeds, the DOJ has already provided enough other cases for defendants to use in arguing against criminal prosecution. The *per se* rule could be under prolonged siege in DOJ criminal cases.

THE POLITICAL ECONOMY OF EXCESSIVE PRICING IN THE PHARMACEUTICAL SECTOR IN THE EU: A QUESTION OF DEMOCRACY?



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I. INTRODUCTION

At least in theory, one of the major schisms between EU and U.S. antitrust laws is that Section 2 of the Sherman Act 1890 does not sanction excessive prices as such whereas EU law does. Indeed, U.S. antitrust law might even be said rather to rub the EU's nose in it – in *Trinko* Justice Scalia considered the charging of monopoly prices not only not to be unlawful, but to involve "an important element of the free-market system," on the basis that the opportunity to charge monopoly prices is what attracts "business acumen" in the first place.[2]

In practice, this schism has, at least historically, been vastly overstated. As an absolute matter, there have literally only been a handful of excessive pricing cases in the EU. One oft-forgotten point is that the excessive pricing findings in the seminal EU case of *United Brands* were actually overturned on appeal.[3] The rare cases that have been brought have fallen into rather specific categories:

1) The first category concerns a series of cases involving the obscure topic of copyright management societies in the EU,[4] with *de jure* or *de facto* monopoly positions in each national territory, which, surprisingly, typically involve no regulation of their fees.

2) The second category concerns so-called parallel trade or market integration cases – a sacred cow in the EU – where the excessive price was a tool to discourage or prevent parallel trade.[5]

3) The final category concerns cases where the main issue was exclusionary conduct and the further concerns about pricing were really the corollary of other, successful abuses. *United Brands* was such as case since the primary antitrust complaints were price discrimination, sales conditions, and refusal to deal (albeit, as noted, the findings of excessive pricing were overturned on appeal).

In fact, under EU law there has never been a truly standalone finding of excessive pricing. The EU Commission's rejection of the excessive pricing complaint in *Port of Helsingborg*[6] were also thought effectively to have killed off excessive pricing, both as a matter of EU Commission administrative priority and in terms of the substantive hurdles that would need to be overcome by a complainant, competition authority, or plaintiff. In particular, the strong emphasis on "economic value" including demand-side considerations, and the value derived from the product or service by its users, made excessive pricing cases even more difficult than they are otherwise. The absence of excessive pricing from the EU Commission's 2009 abuse of dominance Guidance Paper was also striking.[7]

II. THE CHANGING TIDE?

To some surprise, the last couple of years have witnessed a dramatic resurgence of excessive pricing cases in the EU, nearly all of which have arisen in the pharmaceutical sector. The first sign was the €5 million fine imposed on Aspen by the Italian Antitrust Authority in respect of price increases of 1500 percent for four blood cancer drugs, subsequently upheld on appeal. In May 2017 the EU Commission then extended the investigation into the pricing of Aspen's cancer drugs EU wide (with the exception of Italy).

In December 2016 the United Kingdom's Competition and Markets Authority ("CMA") imposed a record £84.2 million fine on Pfizer, and a £5.2 million fine on its distributor, Flynn Pharma, for excessive prices for phenytoin sodium capsules, an anti-epilepsy drug. The drug was debranded and the prices increased by up to 2,600 percent compared to the previous (regulated) branded price.[8] The CMA's findings on abuse were

2 *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko*, LLP, 540 U.S. 398, 407 (2004).

3 Case C-27/76 *United Brands v. Commission* EU:C:1978:22.

4 See Joined cases C-395/87 *Ministère public v. Jean-Louis Tournier* and C-110/88, 241/88 and 242/88 *Lucazeau v. SACEM and Others* EU:C:1989:215.

5 See Case C-26/75 *General Motors Continental v. Commission* EU:C:1975:150 and Case C-226/84 *British Leyland v. Commission* EU:C:1986:42.

6 EU Commission decision *Scandlines v. Port of Helsingborg* COMP/36.568. At a national level, cases like *Attheraces Limited v. British Horseracing Board Limited* [2007] EWCA Civ 38 (which refers to *Port of Helsingborg*) had a similar practical effect.

7 Communication from the EU Commission: Guidance on its enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings. OJ C 45, 24.2.2009, p. 7–20. Whilst true that the issue of fair, reasonable and non-discriminatory ("FRAND") royalties has featured prominently in antitrust law in the EU and elsewhere this concerns a rather different, and specific, aspect of antitrust law where a firm has committed to offering FRAND licenses and the courts' function is to work out a rate if there is a dispute.

8 Pfizer considers this characterization unfair. It said this historic price was loss-making and that the new price was intended to achieve some level of parity with the price paid by the national health service for an identical phenytoin sodium tablet product.

overturned in a striking judgment rendered by the Competition Appeal Tribunal ("CAT") on June 7, 2018,[9] due to various legal errors in the CMA's assessment. The CMA is seeking permission to appeal this judgment. The CMA is also pursuing a surprisingly large number of other investigations into excessive prices in the pharmaceutical sector that were, prior to the CAT's judgment in *Phenytoin*, also at a relatively advanced stage.

These developments in the pharmaceutical area are not simply confined to the EU.[10] But what is unique to the EU relative to the U.S. and most other countries is that the antitrust laws on unilateral conduct are being used successfully to target excessive prices for these pharmaceutical products.

Finally, in September 2017 the EU Court of Justice ("CJEU") rendered a very important ruling in the so-called *Latvian Copyright* case.[11] The CJEU's judgment, and the opinion of Advocate General Wahl in the same case, are highly significant, since they constitute the first real opportunity that the most senior EU court has had to deal with excessive pricing since its seminal judgment in *United Brands* in the 1970s.

III. THE POLITICAL ECONOMY OF PHARMACEUTICALS

Pharmaceutical products are subject to unique levels of regulation – perhaps more so than any other product or service. In the pre-marketing stage, there are, rightly, extraordinary levels of safety and efficacy checks. The cost of bringing new drugs to market is often of the order of hundreds if not millions of pounds/Euro/dollars due to clinical trials and other testing.

But in the EU there are also very high levels of regulation of pharmaceutical products at the post-marketing stages as well. In particular, direct and indirect forms of State-sanctioned price and/or profit controls and caps are the norm and the State in its various avatars is normally the sole ultimate end-purchaser. The detailed explanation of the extraordinarily complex systems that exist with the 28 EU Member States is well outside the scope of this short opinion piece but the following points bear mention:[12]

1) National health systems in the EU are funded by taxpayers, either through general taxation or through specific social security charges. Typically, a budget is allocated to health services/products and a portion of that budget is then sub-allocated to the funding of drug purchases, both patented and off-patent (generic), branded or unbranded. Thus, the taxpayer underwrites the system, with the national health service as the ultimate sole or main payor. The practical operation of this underwriting mechanism varies but, in most countries, the dispensing pharmacies will be reimbursed by the national health service when fulfilling prescriptions covered by State reimbursement schemes. In some countries patients or their insurers have to make contributions or co-payments or pay fixed charges for, e.g. a prescription.

2) Direct price regulation remains a feature in many EU Member States, usually consisting of a fixed or a maximum price, typically on an *ex-ante* basis but *ad hoc ex-post* price freezes are also possible. Direct price control schemes may have an express statutory basis or may involve collective agreements between the State purchasing entity/ies and the participants in the regulated scheme (or both).[13] Regulation does not simply apply the manufacturer level: most Member States also have regulated margins for wholesalers and pharmacies for reimbursable medicines and many seek to clawback discounts offered by wholesalers/manufacturers, in an effort to reimburse as close as possible to the true price paid. As with all forms of direct *ex-ante* pricing regulation, price and/or profit controls are complex to implement for both the regulator and the regulated. They also place significant informational and other resource demands on the parties.

9 *Pfizer Inc and others v. Competition and Markets Authority* [2018] CAT 11. I acted for Pfizer in this appeal but the views expressed here are personal ones only and do not directly touch on the issues in the *Pfizer* case.

10 Aspen for example is also under investigation by the South African Competition Commission, where Aspen is headquartered. In the U.S. there was enormous public outcry when Gilead charged $84,000 for a 12-week course of treatment for a hepatitis C drug, leading to $14 billion in sales in the first year, for a drug said to cost $350 to produce. Even before his criminal conviction, Martin Shkreli became a controversial figure when his company increased the price for Daraprim, used to treat certain AIDS-related diseases, to $750 a pill, from $13.50. The issue became a major political football during the 2016 Presidential Election. Indeed, prescription medicine prices remain a major political issue in the United States, leading to the publication in May 2018 of "*American Patients First The Trump Administration Blueprint to Lower Drug Prices and Reduce Out-of-Pocket Costs*:" see: https://www.hhs.gov/sites/default/files/AmericanPatientsFirst.pdf.

11 Case C-177/16 *Autortiesību un komunicēšanās konsultāciju aģentūra / Latvijas Autoru apvienība* EU:C:2017:286.

12 See documents collected at: http://ec.europa.eu/DocsRoom/documents?locale=en&tags=Pharmaceutical%20pricing%20and%20reimbursement%20systems and the documents referenced therein. See also: http://whocc.goeg.at/.

13 For example, the British Pharmaceutical Price Regulation Scheme is a voluntary agreement between the Department of Health and the Association of the British Pharmaceutical Industry to control the prices of branded medicines sold to the national health service ("NHS"), by regulating the maximum prices of branded medicines; and the profits that manufacturers are allowed to make on their sales to the NHS.

3) A particularly prevalent form of price control in the EU is external reference pricing ("ERP"). The WHO Collaborating Centre for Pricing and Reimbursement Policies defines ERP as: "The practice of using the price(s) of a medicine in one or several countries in order to derive a benchmark or reference price for the purposes of setting or negotiating the price of the product in a given country." So price movements in one reference country can affect the prices in the country applying ERP. It is a form of international price benchmarking. A major recent study shows that most EU Member States applying ERP to a greater or lesser extent.[14] The study considered 31 European countries (28 EU Member States plus Iceland, Norway, and Switzerland). All but two used ERP to some extent. The majority of the countries use ERP as the main systematic criterion when setting the price of a new drug, while others, like Belgium, Finland, Italy, Poland, Spain and Germany, use it as a supportive criterion. The content of individual ERP schemes varied enormously. The number of reference countries included in the basket for comparison purposes varied from 1-31. The particular methodology also varied; 15 countries used average prices, 7 countries used the lowest price, and 7 countries used other calculation methods.

4) In general, EU Member States impose the most onerous forms of regulation on patented drugs and often leave generic drug pricing to the market. But the practical reality is more complex than this. Some Member States have price controls for generic medicines as well. Other Member States have statutory or non-statutory powers to regulate the price of generic medicines, if it is felt that competition is not working well. Complexities also arise because in many countries the pricing of generic medicines has a direct effect, under the relevant statutory scheme or other price control measure, on the pricing of patented products, e.g. once a generic comes on the market the reimbursement price for the originator equivalent automatically drops by "X" percent. More generally, the pricing impacts of generic entry on originator products may be either muted or non-existent. Kanavos summarizes the position as follows:[15]

> …the literature on the influence of generic competition on originator brand name prices and market share is somewhat divided. While some studies have found that the price response to generic entry is as expected, in that originator prices decline following generic entry, others have found that prices of originator brands may rise upon generic entry. In addition, while increased competition between generic producers has been found to decrease prices of generic drugs, the price of branded drugs is not necessarily reduced by increased generic competition. It has also been shown that originator brand manufacturers do not respond to generic market entry by decreasing prices, but rather generic entry may correspond to a decrease in the speed of originator price increase. Evidence also suggests that manufacturers will often not compete on price once generic competitors enter the market.

5) An unusual feature of prescription medicines is that the person who decides what drug is used – the clinician – does not pay for or dispense the drug in question and may, all else equal, be agnostic as to the economic consequences of exercising a particular choice. The same may be true of the patient unless there is some form of contribution or co-payment that: (i) varies depending on the underlying drug price; and (ii) is relatively significant. These dynamics and incentives may lead to either patient/prescriber inertia or in some cases even over-consumption. It may also mean that, where a choice exists between drugs, prescribing decisions may be motivated by various subjective factors or by the zealousness of marketing representatives of drug companies.[16] An indirect form of regulation in the EU therefore concerns measures designed to impose some structure on decision-making on the demand side. These include clinical practices' guidelines and prescription guidelines, education and information methods (e.g. computerized software), and obligations to prescribe generic or other cheaper alternatives where they exist (e.g. parallel trade). Discounting and rebate practices on the demand side can also have a significant impact on pharmaceutical pricing, particularly where the State "claws back" the effective price paid by the dispenser.

14 See External Reference Pricing Of Medicinal Products: Simulation Based Considerations For Cross-country Coordination, Final Report by Toumi, Rémuzat, Vataire & Urbinati (2014), available at: https://ec.europa.eu/health//sites/health/files/healthcare/docs/erp_reimbursement_medicinal_products_en.pdf.

15 Kanavos, Measuring Performance In Off-Patent Drug Markets: A Methodological Framework And Empirical Evidence From Twelve EU Member States, *Health Policy* 118 (2014) 229–241, at 230.

16 For example, a patient may have some irrational fear that a different color pill may affect his or her condition and the clinician may prescribe that more expensive product for sake of a quiet life.

6) The fact that the State in the EU is the ultimate payor, and in most cases also the regulator, may vest various forms of buyer power in the State. As a matter of economics, a sole buyer ought to have monopsony power. The fact that the ultimate customer is also the regulator and, effectively, part of the Government, normally adds to that power. In practice therefore if the State is concerned about drug prices it will have various formal and informal levers at its disposal that may allow it to "make an offer than cannot be refused." The ultimate threat of extending direct regulation also plays a part here – it is perhaps unique that the regulator can also seek legislation to move the goalposts. The State purchasing entity may therefore engage in discussions with the firm requesting information about the product and inviting them to reduce their prices by consent, "invite" them to join existing regulatory schemes, make threats to impose direct regulation where none currently exists, threaten to expel the firm from an existing (favorable) regulatory scheme, or threaten to seek new legal powers if corrective action is not taken.

IV. THE QUESTIONS OF POLITICAL ECONOMY AND DEMOCRACY

The purpose of this short piece is not to attack or defend the recent decided cases on excessive pricing of pharmaceuticals in the EU or to critique the general principles of abuse of dominance under EU competition law (and national law analogues).[17] Nor does this piece decry or assuage concerns expressed over: (i) the general increases in public spending on prescription drugs (which has increased at rates faster than total health spending and gross domestic product in the EU and other Western countries); or (ii) the specific price increases in the cases described earlier in this piece (which, to the extent they remain *sub judice*, must run their own course).

Instead, a narrow, and more fundamental, point is made. The argument proceeds on the following cumulative points.

The first point is an important legal point that public health remains an area of exclusive national competence under EU law, i.e. it is not a competence held by the EU institutions or even shared with them.[18] Article 168(7) TFEU states that the "Union action shall respect the responsibilities of the Member States for the definition of their health policy and for the organisation and delivery of health services and medical care. The responsibilities of the Member States shall include the management of health services and medical care and the allocation of the resources assigned to them."

The second point is that acting on their exclusive competence in public health matters EU Member States have, for better or for worse,[19] decided to regulate pharmaceutical pricing in extraordinarily detailed ways. As noted above, EU Member States have in particular adopted pricing rules for drugs and decided which treatments they wish to reimburse under their national health/social security systems. The details of the different regulatory schemes vary enormously since how much an EU Member State is able, and wishes, to spend, first, on healthcare and, second, on funding prescription medicines is ultimately a political question, which will depend in part on how rich that country is, what its healthcare needs are, and the other competing political priorities.[20] Regulation raises delicate political questions since there will often by political pressure to fund expensive new drugs that offer marginal quality of life or life-extension benefits over existing ones.[21] In other words, whether, to what extent, and how an EU Member State seeks to regulate pharmaceutical pricing is a political decision *par excellence*, made, as noted, in furtherance of

17 The state of EU competition law on this issue following the CJEU opinion and judgment in Case C-177/16 *Autortiesību un komunicēšanās konsultāciju aģentūra / Latvijas Autoru apvienība* EU:C:2017:286 is a fascinating topic for further detailed exploration. For a discussion see *Pfizer Inc and others v. Competition and Markets Authority* [2018] CAT 11.

18 The only EU legislation of interest for these purposes is Council Directive 89/105/EEC of December 21, 1988 relating to the transparency of measures regulating the prices of medicinal products for human use and their inclusion in the scope of national health insurance systems, OJ L 40, 11.2.1989, p. 8–11. It provides for a limited degree of transparency of measures established by Member States to control the pricing and reimbursement of medicinal products. It mainly operates to define certain procedural requirements designed to verify that national pricing and reimbursement decisions do not create obstacles to the pharmaceutical trade within the EU's internal market. Of significance is that in 2015 a proposal to replace the Directive was withdrawn due to objections from the EU Member States.

19 Price regulation will not really affect existing drugs whose development costs are already sunk. But it may affect the development of new innovative drugs if the cumulative effects of regulation make it more attractive for firms and their investors to put their capital into other areas. This is a very complex issue but the basic intuition is that the exercise of monopsony power will depress output by sellers. Price regulation by the sole buyer can be seen as the ultimate expression of monopsony since few buyers are both regulators and customers. This argument is obviously truer of patented drug price regulation than generics.

20 In principle an EU Member State could decide to impose no or light-touch regulation of pharmaceutical prices for any number of reasons. For example, innovative drug production may be a major feature of its economy.

21 In most Western democracies, older voters are on average more likely to vote than younger voters. The "gray" vote may therefore be able to bring powerful political pressure to bear and healthcare will naturally be high on their concerns.

exclusive powers deliberately retained from the EU.[22]

Third, the basic legal predicate of abusive conduct is competition that is not "normal." In *Hoffmann-La Roche* the CJEU defined an abuse as conduct "which, through recourse to methods different from those governing normal competition in products or services on the basis of transactions of commercial operators, has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that competition."[23] More specifically, an excessive price under EU competition law is defined as one that is significantly and persistently above a normally competitive price or, put another way, as a price not obtainable in a normal and effectively competitive market. In *United Brands*, the CJEU defined unlawful pricing by reference to "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." (para 249) (emphasis added)

Drawing together the above points leads to the following basic thesis:

1) EU Member States have, quite deliberately, reserved unto themselves exclusive competence over public health matters, including notably pharmaceutical price regulation. The case for the EU Commission effectively re-evaluating those decisions – including decisions not to regulate particular prices or to do so in one way but not another – raises important constitutional issues to do with the division of power between the EU and its Member States. Being candid, it is not within the EU's competence to re-regulate prices or force the EU's view of pharmaceutical price regulation on a country that has made other arrangements.

2) Quite apart from the above constitutional point, the endemic nature of price and related forms of regulation for pharmaceutical products at a national level in the EU makes it impossible to apply the central concepts of "normal competition" (for abuse generally) and a price that is significantly and persistently above a normally competitive price (for excessive pricing specifically) to regulated pharmaceutical products. Put simply, in regulated markets there is no "normal" counterfactual against which a proper assessment can be made. One cannot have a "normally" competitive price in a market that is inherently distorted by regulation intended to achieve a whole host of other aims.

3) Indeed, one can go further than 2). As noted above, the regulation of pharmaceutical price is inherently a political decision by each EU Member State that depends on a myriad of complex social, political, economic and other factors particular to that country. The essential question: how much a Member State wishes to pay for healthcare services/products, and how much of that it wishes to allocate to prescription medicines, is a domestic political question. The notion that that decision gets subcontracted to generalist antitrust authorities – whether at the EU or national levels – is a dubious one. There is no particular framework or cardinal under the antitrust laws on abusive unilateral conduct to suggest that the analysis of excessive pricing there has anything to commend it for pharmaceutical products. Under EU law on abuse of dominance (and its domestic law analogues) the overarching question is the "economic value" of a product or service.[24] But given the diversity of price and related regulation of pharmaceutical products within the EU Member States, it seems highly unlikely that the antitrust-based notion of a "fair" price – even assuming (heroically) that there is such a thing – has any necessary connection with the multifarious political and other non-economic objectives sought to be achieved as respects healthcare in that country. For example, value-based pricing is a particular feature of pharmaceutical regulation in the EU. In the United Kingdom measures such as quality-adjusted life year ("QALYS") are used to make value-based funding and other decisions on medicines: "QALYs are calculated by estimating the years of life remaining for a patient following a particular treatment or intervention and weighting each year with a quality-of-life score (on a 0 to 1 scale). It is often measured in terms of the

22 It also bears emphasis that the issue is a holistic one that extends far beyond the realms of regulation of pharmaceutical prices. For example, some EU Member States regulate alcohol pricing and/or sales channels as a public health measure. Developed States are also taking increased measures to increase public health and avoidable illness, to reduce healthcare expenditure.

23 Case 85/76, *Hoffmann-La Roche & Co AG v. Commission* EU:C:1979:36, para. 6 (emphasis added).

24 See Case C-27/76 *United Brands v. Commission* EU:C:1978:22, paras 250-253: ("250.…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. 251 This excess could, inter alia, be determined objectively if it were possible for it to be calculated by making a comparison between the selling price of the product in question and its cost of production, which would disclose the amount of the profit margin; however the Commission has not done this since it has not analysed [United Brands'] costs structure. 252 The questions therefore to be determined are whether the difference between the costs actually incurred and the price actually charged is excessive, and, if the answer to this question is in the affirmative, whether a price has been imposed which is either unfair in itself or when compared to competing products. 253 Other ways may be devised – and economic theorists have not failed to think up several – of selecting the rules for determining whether the price of a product is unfair.").

person's ability to carry out the activities of daily life, and freedom from pain and mental disturbance."[25] There are also institutional questions as to whether generalist antitrust authorities have any real competence to conduct such "holistic" assessments and indeed whether they should be conducting them at all given the legal and political delegation of these tasks to specialist regulators and bodies.[26]

In short, there is a compelling policy and legal argument that the political economy of pharmaceutical pricing in the EU is such that it is simply inappropriate to use the antitrust laws on unilateral excessive pricing as a response to pharmaceutical pricing concerns.

V. DEALING WITH SOME STRAW MEN

Two categories of straw men points are worth responding to. The first is that the above approach is not some paean for a "do nothing" approach as respects pharmaceutical pricing. The point made here is that the decision on how much to pay for pharmaceutical products is one of the most fundamental, and complex, expressions of democratic decision-making, will, and sovereignty. If a Member State wishes to regulate pharmaceutical prices – and I take an entirely neutral position on that issue – it should use its existing pharmaceutical regulations or, if there is a lacuna and sufficient democratic and political support, adopt new regulatory laws. The latter point is important since virtually all of the cases which have arisen in the EU concern allegations of "circumvention" of or "gaps" in regulation, e.g. where "de-branding" leads to lesser regulation.[27] The short answer is that if that is indeed the case the gap should be plugged by sector-specific regulation. The notion of using the antitrust laws on unilateral conduct as some form of panacea or to make up for regulatory failures is an unsound one. Equally, if regulators suitably empowered cannot be bothered to use their powers and act, antitrust laws on unilateral conduct should not be seen as some fail-safe or catch-all. The application of antitrust laws should not depend on the diligence of one set of public servants over another.

The second point to deal with concerns the different strands of case law from the EU Courts which, superficially, appears dismissive of "regulatory distortion"-type arguments.

The first strand concerns EU law on abuse of dominance cases where the CJEU has noted the distortive features of pharmaceutical regulation but has refused to treat those as an "exempting" feature that rendered the abuse of dominance laws inapplicable. Notably, in *Glaxo Greece*,[28] the pharmaceutical manufacturers made the perfectly fair point that parallel trade only arose in the first place because divergent price regulation created scope for arbitrage between low- and high-priced countries. The CJEU was actually sympathetic to that argument. It held that:

> 67. Although the degree of price regulation in the pharmaceuticals sector cannot therefore preclude the Community rules on competition from applying, the fact none the less remains that, when assessing, in the case of Member States with a system of price regulation, whether the refusal of a pharmaceuticals company to supply medicines to wholesalers involved in parallel exports constitutes abuse, it cannot be ignored that such State intervention is one of the factors liable to create opportunities for parallel trade.
>
> 68 Furthermore, in the light of the Treaty objectives to protect consumers by means of undistorted competition and the integration of national markets, the Community rules on competition are also incapable of being interpreted in such a way that, in order to defend its own commercial interests, the only choice left for a pharmaceuticals company in a dominant position is not to place its medicines on the market at all in a Member State where the prices of those products are set at a relatively low level.
>
> 69 It follows that, even if the degree of regulation regarding the price of medicines cannot prevent any refusal by a pharmaceuticals company in a dominant position to meet orders sent to it by wholesalers involved in parallel exports from constituting an

25 See: https://www.nice.org.uk/glossary?letter=q.

26 There is also an issue of fairness and consistency. Antitrust authorities and courts can only ever deal with a finite range of the disputes that happen to come before them. If antitrust law is applied to pharmaceutical pricing as opposed to specific regulation, this will inevitably lead to asymmetric or *ad hoc* controls over certain companies' prices but not others. If prices are to be controlled, better that it be done on a symmetric basis to avoid unintended consequences or happenstance. Asymmetric regulation is only appropriate where one firm stands in total contrast to all other market actors, e.g., a communications firm owning an essential facility.

27 For example, in the United Kingdom, there was a legal question as to whether existing regulation allowed price regulation of a generic product if the manufacturer happened to be a member of another statutory or voluntary scheme. In a belt and braces approach, the UK legislature adopted Section 4 of the Health Service Medical Supplies (Costs) Act 2017 to put the scope to regulate beyond any question.

28 See Joined cases C-468/06 to C-478/06 *Sot. Lélos kai Sia EE and Others v. GlaxoSmithKline AEVE Farmakeftikon Proïonton, formerly Glaxowellcome AEVE,* EU:C:2008:504.

abuse, such a company must nevertheless be in a position to take steps that are reasonable and in proportion to the need to protect its own commercial interests.

Two related points can therefore be made. First, the CJEU accepts that the distortive pricing features of regulation can affect the application of the antitrust laws on unilateral conduct. Second, the thesis advanced here is not for a total "exemption" of pharmaceutical pricing from the antitrust laws on unilateral conduct. Rather, it is a narrower point that if the benchmark of excessive pricing is the normally competitive market, then there is no such benchmark where prices are regulated and therefore distorted, i.e. the market is abnormal through regulation. So, on its own terms, the laws on abuse of dominance cannot be applied in a coherent manner in these circumstances.

The second strand concerns EU free movement of goods cases under Article 34 TFEU where the CJEU has held that national market regulation does not prevent the application of these rules: it is "a matter of no significance that there exist as between the exporting and importing Member States, price differences resulting from governmental measures adopted in the exporting State with a view to controlling the price of the product."[29] Two points can be made. First, this is a free movement of goods, and not an antitrust case, and the more recent CJEU findings in *Glaxo Greece* – which was an antitrust case – seem therefore more apposite here. Second, the *ratio* of the case concerned a rather specific point of EU and national trademark law. The CJEU's primary finding was that the exercise, by the owner of a trade mark, of the right which enjoyed under national law to prohibit the sale, in that State, of a product which has been marketed under the trade mark in another Member State by the trade mark owner was contrary to the EU free movement rules. The point about regulation was simply that that did not justify the sales prohibition. This is all rather remote from the thesis being considered here.

The third strand concerns telecommunications cases where the decisions of national regulatory authorities ("NRAs") created under EU secondary legislation cannot prevent the Commission from taking action in respect of the same pricing under primary EU law on abuse of dominance, even if the NRAs have applied EU law on abuse of dominance in their decisions.[30] This line of case law is controversial,[31] but it does not in any event undermine the point made above. For one thing, the regulation of telecommunications is an EU competence, which was partly shared with the EU Member States via the creation of NRAs under the so-called Common Regulatory Framework for communications. Public health, by contrast, is an exclusive competence of the EU Member States. Furthermore, the gravamen of these cases is that the NRAs were lazy, captured, or misapplied EU law on abuse of dominance. This is not the underlying issue in the thesis outlined above.

The final strand concerns instances where there is a State action defense to the application of EU antitrust law. Under these rules undertakings cannot be found to abuse their dominant position if: (1) the persons engaging in the restrictive conduct are acting in the public interest; or (2) the undertakings concerned were compelled to participate by a State measure; or (3) State regulation eliminated the possibility of competitive activity. Undertakings participating in a State-implemented scheme that restricts competition can raise these points as a defense for their participation.[32]

The third category seems potentially the most relevant here. But, again, the thesis advanced here concerns a different point. The argument is not that regulation compelled the pharmaceutical manufacturers to act anti-competitively, such that the laws on abuse of dominance should not sanction the resulting price. Rather, the point is that, assuming EU law on abuse of dominance can in principle apply, are the (legal) conditions under which it applies to excessive pricing in pharmaceuticals – notably "normal competition" and a price that is excessively benchmarked against a normal effectively competitive pharmaceutical market – logically impossible to apply where competition is not normal due to pervasive and deep regulation.

29 Case 15-74 *Centrafarm BV and Adriaan de Peijper v. Sterling Drug Inc.* and Case 16-74 *Centrafarm BV and Adriaan de Peijper v. Winthrop BV* EU:C:1974:90.

30 The leading case is Case C-280/08P *Deutsche Telekom*, ECLI:EU:C:2010:603.

31 See O'Donoghue, Regulating the Regulated: Deutsche Telekom v. European Commission, *Competition Policy International*, May 15, 2008.

32 See O'Donoghue & Padilla, *The Law And Economics Of Article 102 TFEU*, 2nd ed, Hart Publishing, chapter 1. p22. These defenses are available irrespective of whether or not the prior State measure appears to be legal, i.e. the defendant is not required, as a condition of this defense, to challenge the validity of the measure in question. However, once the measure has been declared contrary to EU competition and/or national law, any immunity ceases with immediate effect.

VI. CONCLUSION

The surprising renewed interest in excessive pricing cases under EU and national antitrust laws in respect of pharmaceutical pricing has blithely proceeded on the assumption that one can simply apply the usual general legal principles, albeit taking some account of the features of pharmaceutical markets.

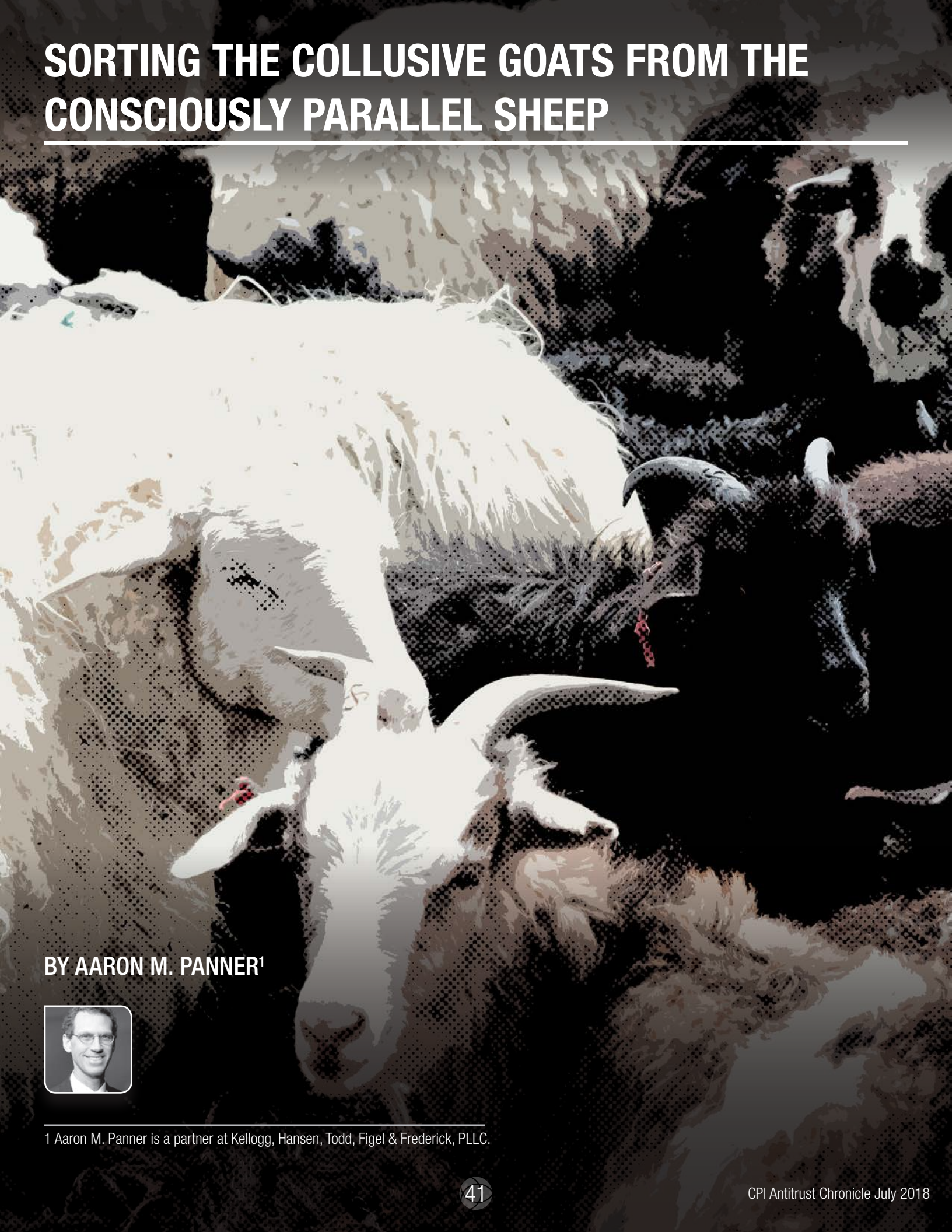
The thesis advanced in this short piece is that this is wrong-headed on multiple levels. In the first place, the legal definition of abuse of dominance is conduct which is not "normal competition." Pharmaceutical pricing is highly regulated in the EU so competition is distorted, not normal. In particular, if the benchmark for an excessive price is one significantly and persistently above pharmaceutical prices in a normally and effectively competitive market, then they cannot be logically applied since, by virtue of regulation, there is no such market. To repeat, this thesis is not an argument for doing nothing. Rather, it strongly counsels against using the antitrust laws on abuse of dominance as a panacea for the plea that "something must be done." If something must be done, a problem caused by regulation should, if necessary, be solved by regulation.

There are also important democratic and constitutional reasons for this. At the EU level, there is simply no competence over national public health decisions and their resourcing. At a national level, if there is to be price regulation, it is more constitutionally appropriate that the would-be subjects of regulation have the benefit of a proper legislative process by which new or adapted laws are promulgated. Doing this by stealth under antitrust law raises important questions about the rule of law.

Finally, there is an institutional component. Each of the EU Member States has set up a vast machinery to regulate pharmaceutical pricing, including Government bodies and regulators who are empowered, and trained, to consider a wide range of non-antitrust objectives and considerations when deciding whether and how much to pay for prescription medicines, and how such funding fits within the wider healthcare service.[33] The rather narrow consumer welfare based approach of antitrust, and the institutions that apply this approach, are not well equipped, or even designed, as proper delegates for these purposes. In short, how much you, or more specifically the State, are willing to pay for a drug is simply not an antitrust question. It is a political one that demands a political answer arrived at through a proper democratic process.

33 For example, it may be a good idea to pay what seems like a lot for a drug if the savings in avoided hospital time through the use of that drug are greater. An antitrust authority or court cannot easily factor such "total welfare" issues into its assessments.

SORTING THE COLLUSIVE GOATS FROM THE CONSCIOUSLY PARALLEL SHEEP



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Tacit collusion refers to the process by which competitors in a concentrated market effectively coordinate their pricing and output decisions to achieve prices above the competitive level without any communicated understanding among them. From the point of view of antitrust policy, tacit collusion is undesirable, because it leads to reduced output and harm to consumers as compared to the competitive outcome.

The Supreme Court, in declaring that tacit collusion is "not in itself unlawful," noted that tacit collusion is "sometimes called oligopolistic price coordination or conscious parallelism."[2] In my view, "oligopolistic price coordination," while more of a mouthful, is the better term, at least for lawyers. For one thing, it is more precise – it concisely describes coordinated price-setting in an oligopolistic industry. For another, it avoids confusion – because collusion that is tacit in the sense of "non-verbal" is unlawful if it involves actual agreement (a wink and a nod). But I will stick with "tacit collusion" for purposes of this comment.

On the other hand, "conscious parallelism" is a term that is too inclusive to serve as an apt synonym for tacit collusion. Pricing that is the product of tacit collusion is consciously parallel, but not all pricing that is consciously parallel constitutes tacit collusion in the sense described above. The purpose of this comment is to illustrate the difference by reference to two widely cited Seventh Circuit antitrust opinions, both authored by Judge Posner, *In re High Fructose Corn Syrup Antitrust Litigation*,[3] ("*HFCS*") and *In re Text Messaging Antitrust Litigation*,[4] ("*Text Messaging*"). My argument is that although *HFCS* involved collusive pricing in the broad sense – that is, it was the product of either lawful oligopolistic price coordination or unlawful express collusion – *Text Messaging* did not.

My initial interest in comparing the two cases arose from Judge Posner's change of position – in his academic writing – on the question whether tacit collusion should be lawful in the first place. As Greg Werden recounts in his excellent article on oligopoly pricing and game theory (helpfully simplified for lawyers like me), for a period in the middle of the 20th Century, there was doubt about whether, in some circumstances, coordinated conduct might give rise to liability in the absence of spoken agreement.[5] But the Supreme Court's decision in *Theatre Enterprises*,[6] and a 1962 article by Donald Turner – the leading antitrust authority of the time – laid those doubts to rest. Prof. Turner's article concluded that, although oligopolistic price coordination, as a matter of statutory language, might satisfy the concerted action requirement of Section 1 of the Sherman Act, no remedy was possible for conduct that reflects rational, interdependent – but unilateral – conduct.[7]

When still an associate professor at Stanford, Richard Posner published an influential article in which, taking on Prof. Turner, he proposed that tacit collusion should be actionable as a violation of Section 1.[8] In his academic writing, Judge Posner maintained that view for decades.[9] So matters stood when, in 2013, Prof. Louis Kaplow published *Competition Policy and Price Fixing*, a book intended "to provide an analytical foundation for designing policy towards coordinated price elevation in oligopolistic industries."[10] Like Prof. Posner, Prof. Kaplow argued that the economic effects of conduct – and not a "formalism" related to the nature of communication employed to bring those effects about – should govern the legal response to that conduct. In his preface, Prof. Kaplow singled out Judge Posner's 1969 article, noting that "the spirit of his argument as well as some key insights provide invaluable illumination."[11] Having such distinguished company was apparently too much for Judge Posner, who promptly changed his mind, and decided that Prof. Turner had been right all along: tacit collusion, because it defies effective remediation,

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2 See *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 227 (1993).

3 295 F.3d 651 (7th Cir. 2002).

4 782 F.3d 867 (7th Cir. 2015). The Seventh Circuit's decision in *Text Messaging* was preceded by an earlier opinion affirming, on interlocutory appeal, the district court's denial of a motion to dismiss the complaint for failure to state a plausible antitrust claim under *Twombly*. See *In re Text Messaging Antitrust Litig.*, 630 F.3d 622, 629 (7th Cir. 2010). The author represented Verizon throughout the litigation.

5 Werden, "Economic Evidence of Collusion: Reconciling Antitrust Law with Oligopoly Theory," 71 Antitrust L.J. 719, 739-745 (2004).

6 *Theatre Enters., Inc. v. Paramount Film Distrib. Corp.*, 346 U.S. 537 (1954).

7 Turner, "The Definition of Agreement Under the Sherman Act: Conscious Parallelism and Refusals To Deal," 75 Harv. L. Rev. 655 (1962).

8 Posner, "Oligopoly and the Antitrust Laws: A Suggested Approach," 21 Stan. L. Rev. 1562 (1969). Posner takes issue with Turner on two basic grounds. First, work by the economist George Stigler (published after Turner's article) showed, contrary to the view of some earlier economists, that arriving at the monopoly price was not the necessary result of rational price setting in an oligopoly – in other words, collusive pricing might not be so likely in the absence of express agreement as had been believed. Second, Posner believed that the remedial problem was not as intractable as Turner had believed.

9 See, e.g. Posner, *Antitrust Law* 51-100 (2d ed. 2001).

10 Kaplow, *Competition Policy and Price Fixing* 1 (2013).

11 Id. xv.

should not be treated as unlawful.[12]

It would be a mistake to confuse the views of Richard Posner with the law of the Seventh Circuit as laid down in the Court's opinions – even (or perhaps especially, since the temptation is greatest) in those cases where he was the author. But it is interesting that in *HFCS*, the Court went out of its way to note that the language of Section 1 "is broad enough . . . to encompass a purely tacit agreement to fix prices." (Though the opinion emphasized that "an express, manifested agreement, and thus an agreement involving actual, verbalized communication, must be proved in order for a price-fixing conspiracy to be actionable under the Sherman Act."[13]) By contrast, in *Text Messaging*, the Court explained – in terms familiar to readers of Judge Posner's academic writing – that Prof. Kaplow's view that "tacit collusion should be deemed a violation of the Sherman Act" is "not the law, and probably shouldn't be."[14] Moreover, in *HFCS*, the Court reversed summary judgment in favor of defendants, while in *Text Messaging* it affirmed it.

But in comparing the two cases more closely, it became clear that the claims in *Text Messaging* were substantially weaker than the claims in *HFCS* in ways that the later opinion does not fully acknowledge.[15] In the earlier case, producers of HFCS – including ADM, which had earlier been convicted of fixing prices for lysine – were accused of price-fixing. There appeared to be no serious dispute that the pricing at issue in *HFCS* was the product of oligopolistic coordination,[16] whether lawful (tacit) or unlawful (express). By contrast, in *Text Messaging*, wireless carriers were not accused of fixing prices of wireless service generally; rather, they were accused of fixing the price of text messages paid for individually – "pay-per-use" ("PPU") text messages. But the pricing of PPU in *Text Messaging*, while uniform, was not collusive.

In this regard, it is important to recognize that not all parallel conduct constitutes tacit collusion. For one thing, if all of the sellers in a competitive market raise their prices in response to an increase in demand or input costs, such an increase – though it would appear lockstep – would reflect competitive behavior. One might properly respond that such parallel conduct is not *consciously* parallel in the relevant sense: a seller in a competitive market (who is already selling at cost) confronted with an increase in marginal cost will increase prices to recover those costs – whatever its rivals may do.

But even consciously parallel conduct need not be collusive in the relevant sense, because it may not reflect any "shar[ing] of monopoly power."[17] In a commodity market, parallel price increases (or output restrictions) unjustified by increased cost or other market conditions are "collusive" in the sense that they are unsustainable without collective action (whether or not the action results from agreement). If there are five sellers in the market selling identical goods, each with spare capacity, and seller A increases its price, sellers B-E will capture a portion of its sales as long as they decline to follow the increase (and seller A will have to retract the increase). But if sellers B, C, D, and E quickly join seller A, the price increase will succeed. It is that joining – not compelled by market conditions but intended instead simply to boost profits – that one can call the "acceptance" of seller A's price-increase "offer."[18] The price increase reflects tacit collusion (assuming no express agreement) because it is the uniformity of action that gives the price increase market-wide effect (and harms consumers).

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12 See Posner, *Economic Analysis of Law* § 10.2 (9th ed. 2013); Posner, "Review of Kaplow, *Competition Policy and Price Fixing*," 79 Antitrust L.J. 761 (2014). Assuming that purely unilateral oligopolistic price coordination should not be unlawful begs at least two harder questions. First, what sort of facilitating practices should be subject to condemnation in an oligopolistic industry when they have the effect of allowing competitors to maintain higher prices? For a skeptical view, see Carlton, Gertner & Rosenfield, "Communication Among Competitors: Game Theory and Antitrust," 5 Geo. Mason L. Rev. 423 (1997). Second, how hard should it be to infer an agreement based on circumstantial evidence? Under Supreme Court precedent, a plaintiff seeking to survive summary judgment on a claim that defendants have conspired in violation of Section 1 is required to proffer "evidence 'that tends to exclude the possibility' that the alleged conspirators acted independently." *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 588 (1986). Whether evidence has such a "tendency" depends at least in part on how difficult it is for competitors to maintain supra-competitive pricing without an express understanding – a question that game theory can help to address but that is, in the end, empirical. A court interpreting the *Matsushita* standard should also pay attention to the cost of false positives and false negatives – can the threat of liability encourage rivals to compete more vigorously, which would seem to be a good thing? Or could the threat of liability discourage entry, as Judge Posner has worried?

13 Id. at 654.

14 782 F.3d at 874.

15 Although *Text Messaging* does not cite *HFCS*, the Court's prior opinion did. See 630 F.3d at 629.

16 See *HFCS*, 295 F.3d at 661 ("[T]here is evidence that the defendants were not competing; we might go so far as to say that they had tacitly agreed not to compete, or at least to compete as little as possible.").

17 *Brooke Group*, 509 U.S. at 227.

18 *HFCS*, 295 F.3d at 654.

On the other hand, the mere fact that one seller imitates another seller's *successful* strategy doesn't suggest anything that can be called collusion. Take the example that the Court offered in *Text Messaging*:

> Competitors in concentrated markets watch each other like hawks. Think of what happens in the airline industry, where costs are to a significant degree a function of fuel prices, when those prices rise. Suppose one airline thinks of and implements a method for raising its profit margin that it expects will have a less negative impact on ticket sales than an increase in ticket prices – such as a checked-bag fee or a reservation-change fee or a reduction in meals or an increase in the number of miles one needs in order to earn a free ticket. The airline's competitors will monitor carefully the effects of the airline's response to the higher fuel prices afflicting the industry and may well decide to copy the response should the responder's response turn out to have increased its profits.

That is certainly right, but that copying cannot be accurately described as collusive because (at least as far as the hypothetical indicates) the success of the pricing change does not depend on whether competitors follow. It will instead depend on whether the airline has discovered an effective way to price-discriminate among its customers. Consider the checked-bag fee: the airline may have a pretty good idea that 20 percent of passengers will have to check a bag on a particular route. If the airline institutes a check-bag fee of $25, that will allow it to reduce the price of a ticket by $5 for everyone on the plane without sacrificing any revenue. Of course, the 20 percent of customers that check a bag will pay more – $20 more per ticket – but if passengers with checked luggage also tend to be less price elastic than those without checked luggage, the change in pricing structure will be a winner, because fewer customers will be lost than gained.

A competitor (say, Airline B), seeing the success of Airline A, will imitate the strategy. But Airline A (assuming the new pricing structure is working) does not care whether Airline B adopts it as well – it might even prefer that Airline B stick to its free-bag policy. To be sure, for the 20 percent of customers with bags, Airline B will be at a price advantage, but for the other 80 percent Airline A will be at an advantage. Moreover, if there are costs associated with checked baggage (as, presumably, there are), Airline B will be stuck with the bags, and Airline A will be blessed with bag-less flyers. If Airline B follows, Airline A would maintain the strategy – it is a better pricing structure for the reasons described, irrespective of what Airline B does – but it would lose the *competitive* advantage that the checked-bag fee confers.

Moreover, at least in the Court's hypothetical, it is not the case that the success of the checked-bag fee depends on competitors' response: Airline B copied Airline A only once it observed that the strategy was working. In the price-increase scenario, by contrast, the success of the price increase *depends* on competitors' response – seller A can sell at a higher price only if sellers B-E increase their prices as well. That is why the increase reflects *coordinated* pricing – it depends on rivals recognizing their joint interest in forgoing profitable sales to achieve a price increase.

The parallel increase in PPU prices at issue in *Text Messaging* did not reflect tacit collusion – indeed, the Court's opinion makes that clear (though it does not address the point). PPU text messages are not like HFCS – they are not a commodity and cannot be purchased on their own. Instead, PPU text messages are one service feature available to wireless subscribers. An increase in the PPU price is like the airlines' checked-bag fee – it provides a way for carriers to obtain some extra revenue from a discrete set of customers. And like the airline that institutes a checked-bag fee, a carrier in a competitive market can use the extra revenue to reduce other prices (say, the basic subscription rate) that more customers care about (and care more about).[19]

As the Court explained, there were additional reasons that increasing the PPU rate was a profitable strategy, none having to do with coordination. For one thing, at a time of increasing use of text messaging, a carrier might predict that an increase in the PPU rate would encourage customers to subscribe to a bundle of text messages (say, 100, 1000, or an unlimited number for a monthly fixed fee), and carriers "*wanted* their PPU customers to switch to bundles."[20] By the same token, "as price-sensitive users moved off PPU to bundles, . . . the overall demand for PPU became less elastic, meaning that a given percentage increase in the price of PPU service had a smaller negative effect on the demand for the service. That made raising the PPU [rate] a revenue winner."[21]

Plaintiffs argued that carriers would not increase prices without agreement because customers subject to the increase would switch carriers, but that argument had no evidence to support it. As the Court noted, "the four defendants in this case did not move in lockstep" and "during

19 *Cf.* 782 F.3d at 878 ("[S]ince an agreement to fix prices in the PPU market would have left the carriers free to cut prices on the bulk of their business (for they are not accused of fixing bundle prices), the slight gains from fixing PPU prices would be negated by increased competition in the carriers' other markets.").

20 782 F.3d at 877.

21 Id. at 878.

most of the entire period at issue . . . T-Mobile's PPU was 5 cents below Sprint's."[22] If that difference caused churn, there should have been evidence of it, and there was not: as a T-Mobile executive put it, "[F]or having the lowest messaging rates on the planet, we are not necessarily receiving a more favorable share of the market."[23] "A company that stands to lose some PPU customers because of a price increase may be confident that they will not abandon the company for another but instead sign on to the company's text messaging bundle plan. Put differently, there is no evidence that PPU pricing is a major determinant of consumers' choice of carrier."[24]

It thus follows that the first wireless carrier to raise its PPU rate would have been just as happy (perhaps happier) if none of its rival carriers had adopted the same increase – the PPU price increase was a winning strategy without coordination.[25] The Court referred to this argument as "overkill" because "it is not a violation of antitrust law for a firm to raise its price, counting on its competition to do likewise."[26] But the argument matters not because coordinated price increases are unlawful, but because if the success of the PPU increase did not depend on "its competition [doing] likewise," the carriers had no reason to coordinate – a point that the Court itself recognized.[27] And the fact that "[one carrier] held back . . . fearing that [another carrier's] increase would have a bad effect,"[28] is likewise not the behavior one would expect in the presence of collusion, where competitors raise prices because of an agreement (tacit or express) to do so, even though a price increase by a single seller would be unprofitable.

The idea that adoption of a discriminatory pricing structure often reflects competitive pressure, not collusion, is the basic insight of Baumol and Swanson's 2003 article, "The New Economy and Ubiquitous Competitive Price Discrimination: Identifying Defensible Criteria of Market Power."[29] They noted that businesses that have economies of scale must adopt prices "that are discriminatory and exceed marginal costs," and that "it is competition, rather than its absence, that in many cases serves to impose discriminatory pricing."[30] That is true for wireless carriers – if a carrier finds a pricing structure that allows it to recover costs from customers who are price inelastic, that will give that carrier a competitive advantage. And competition (not lack of competition) will impel rivals to copy that structure. Such behavior is consciously parallel. But it is not collusive.

22 Id. at 877.

23 Id. (alteration in original; internal quotation marks omitted).

24 Id.

25 It is true that the first carrier to increase its rate from $0.15 to $0.20 did not adopt that increase until its rivals had increased their rates to $0.15. My instinct is that the success of the second price increase did not depend on that fact, but if it did, then the price increases were more interdependent than the discussion in text suggests. Needless to say, in the real world businesses may be at least as concerned about bad publicity as the shape of the demand curve.

26 782 F.3d at 876.

27 Id. at 878 ("[I]f the carriers were going to agree to fix prices, they wouldn't have fixed their PPU prices.").

28 Id.

29 70 Antitrust L.J. 661 (2003).

30 Id. at 662.


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