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# **ICC GLOBAL ANTITRUST REVIEW**

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In line with the GAR's commitment to provide a forum for academic debate on matters of international competition law and policy, the 2018 volume consists of contributions discussing a diverse selection of prominent and controversial topics.

This volume has two interesting articles. The first article explains the rise of self-learning algorithms, big data and analytics and artificial intelligence and reflects on the question how algorithms and data crunching are changing the nature of market competition to the disadvantage of consumers. The second article analyses the role of the Competition Commission of India in promoting access and innovation in the Indian pharma through its merger control regime by taking into account the dynamics of the Indian pharma and the core competencies of the merging parties. This article considers the question whether inorganic growth enhances efficiencies by helping parties leverage their key strengths and growth in new relevant product and geographic markets.

This volume is complemented by an enlightening essay, reflecting on the Brexit which is currently the centre of attention in the UK. This essay explores how the application of competition rules change in the UK after Brexit. It shows that even if the main idea of Brexit is to take back control of both the creation and application of law, EU competition law will always be applicable to companies based on British territory so far as they make decisions that affect competition on the internal market.

As always, I would like to specifically thank Prof. Eyad Maher Dabbah, the director of the ICC, for his time, guidance and endless support.

We hope you will enjoy this volume, and we already look forward to receiving excellent contributions from all interested young scholars for the next one.

Editor  
December 2018

VIRTUAL COMPETITION: CHALLENGES FOR COMPETITION  
POLICY IN AN ALGORITHM DRIVEN MARKET

**Nidhi Singh\***

*Recent times have seen an upsurge in online markets and a distinct change in purchasing patterns. This change is attributable to the advancement of technology, which has widened our spectrum of choices and opened the markets to competition. The high technology companies which at least might appear to be dynamic have created a class of industries with strong network effects. As a result, the markets tend to collapse into a narrow set of players. The rapid 'creative destruction' through online innovation has possibly entrenched market power by extracting consumer surplus. This article explores how algorithms and data crunching are changing the nature of market competition to the disadvantage of consumers. The article analyses how behaviour of market players amounts to algorithm-driven collusion, behavioural discrimination and abuse by the dominant super-platforms. It argues that the changing market reality is resulting in concentration of powers. It throws light on the consequent potential risk to tangible proposals to address the challenges for competition policy in the digitalized economy.*

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## I. Prologue: The evolving sphere of virtual competition

Even at the dawn of the 21<sup>st</sup> century, nobody could have imagined the way digital entities like Google are impacting our lives today. For the most basic needs like – directions for travel, news updates, food recipes, booking tickets, studying for exams *etc.* — the Internet works like sophisticated eyes, ears and voice coupled with an unimaginable memory to produce desired results. For most of its inhabitants, Google home page is unarguably the door to this digital ecosystem. The subtle presence in our lives and rapidly growing market power of search engines has met with concerns of regulators around the world. The Competition Commission of India (the Commission) recently imposed a penalty of approximately \$21.13 million on Google for abusing its dominant position in the markets related to online general search services and online advertising services in India.<sup>1</sup>

In the past one year, the nature of cases that have come up before the Hon'ble Commission has prompted the need to venture further into complex issues pertaining to Virtual Competition and the possible implications on competition law. Two other prominent examples<sup>2</sup>, those concerning abuse of dominant position dealt by the Commission are Ola case (ANI Technologies Pvt. Ltd.)<sup>3</sup> and Whatsapp Inc.<sup>4</sup> case in 2017. In both these cases, the Commission dismissed allegations of predatory pricing. In the Ola case, it was alleged by Bengaluru based taxi operators Fast Track Call Cab Pvt. Ltd that Ola by offering heavy discounts to passengers and incentives to cab drivers in the city are abusing its dominant position. The Commission observed -just because a disruptive technology is being adopted by the Ola cab aggregators (new players), does not call for a reason for a regulator to

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<sup>1</sup> Matrimony.com Limited And Google LLC & Ors., Case No. 7 & 30 of 2012, (Competition Commission of India).

<sup>2</sup>Meru Cabs moves CCI against Ola, Uber' *The Economic Times* (12 October 2017) <<https://economictimes.indiatimes.com/small-biz/legal/meru-cabs-moves-cci-against-ola-uber/articleshow/61047123.cms>> accessed 5 December 2018.

Veena Mani, 'Cab aggregators Ola, Uber to come under CCI scanner for surge pricing' *Business Standard* (5 January 2018) <[www.business-standard.com/article/companies/cab-aggregators-ola-uber-to-come-under-cci-scanner-for-surge-pricing-118010500039\\_1.html](http://www.business-standard.com/article/companies/cab-aggregators-ola-uber-to-come-under-cci-scanner-for-surge-pricing-118010500039_1.html)> accessed 12 January 2018 .

<sup>3</sup> Fast track Call Cab Pvt. Ltd. And ANI Technologies Pvt. Ltd., Case No. 6 & 74 of 2015 (Competition Commission of India).

<sup>4</sup> Vinod Kumar Gupta and Whatsapp Inc., Case No. 99 of 2016, (Competition Commission of India).

interfere in proceedings. Whereas in the Whatsapp case<sup>5</sup>, it was alleged that Whatsapp by not charging any subscription fee from the users is indulging in predatory pricing. It was further alleged that Whatsapp on being acquired by Facebook, changed its privacy policy and has started to share its data with Facebook which is now being used by Facebook for targeted advertisements. The Commission negated the challenge on several grounds and said that the standard practice in the market is to provide services without charging any fees. Thus, despite being in a dominant position, Whatsapp was not found to be indulging in predatory pricing.

There is a strong possibility that similar cases are bound to come up before the Commission in near future given the upsurge in digital commerce and the advancement in new technologies. It is in this context, that this article explores types of ‘Virtual Competition’ scenarios and issues that might attract competition provisions across jurisdictions. Can computers collude? What if, the answer to this question is in affirmative? Ideally, Virtual Competition to a layman gives a picture of near to perfect competition where everything would be transparent. But can this digital advancement and commerce harm us? With the advent of terms and technological progression like Big Data & Analytics<sup>6</sup>, Artificial Intelligence, complex algorithms and access to the Internet, we expect life to be much simpler and everything to be available at our door within hours or days. It is undoubtedly beneficial to us in many aspects especially the price comparison websites (PCWs), low pricing, better quality, faster delivery, wider choices of goods and services and as a result a better competitive environment enabling innovation and a dynamic market.

The above scenario however may not always lead to ‘fairy tale’, rather could be a ‘cautionary tale’. The promise of better competition could possibly get shattered in wake of complex technologies and algorithms colluding that eventually lead to higher prices, poor quality of goods and services, leaving limited options at our disposal while purchasing a product online, future

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<sup>5</sup> Puneet Sharma, ‘Competition Commission of India negates Challenge to Whatsapp contravening provisions of Section 4 of the Competition Act, 2002’ (*Mondaq*, 14 July 2017) <[www.mondaq.com/india/x/610620/Antitrust+Competition/Competition+Commission+Of+India+Negates+Challenge+To+WhatsApp+Contravening+Provisions+Of+Section+4+Of+The+Competition+Act+2002](http://www.mondaq.com/india/x/610620/Antitrust+Competition/Competition+Commission+Of+India+Negates+Challenge+To+WhatsApp+Contravening+Provisions+Of+Section+4+Of+The+Competition+Act+2002)> accessed 15 March 2018.

<sup>6</sup> Jay Modrall, ‘Big Data and algorithms: Focusing the discussion’ (*Oxford Business Law Blog*, 15 January 2018) <[www.law.ox.ac.uk/business-law-blog/blog/2018/01/big-data-and-algorithms-focusing-discussion](http://www.law.ox.ac.uk/business-law-blog/blog/2018/01/big-data-and-algorithms-focusing-discussion)> accessed 31 January 2018.

violation of our privacy and to a less innovative and democratic online environment. The purpose of this article is not to deny the benefits and the plethora of opportunities that Big Data<sup>7</sup> and Artificial Intelligence has opened before us but to explore the sphere beyond the façade of competition *ex-ante* so that the complex realities can be better understood for future competition cases.

This article explores the possible use of sophisticated pricing algorithms and Artificial Intelligence to enter into collusion or which may lead to conscious parallelism. The article also looks into the issues of behavioural discrimination, gathering private information of the users and analysing the data to the benefits of online dealers, implications of the rise of super-platforms and price comparison websites. In the first part, the benefits of algorithm driven economy have been discussed and the latter half argues the perils of this type of an economy which may lead to anti-competitive issues.

The article is divided into ten parts: The Prologue to the essay sets the stage for Virtual Competition and for further discussion to the enforcement challenges. In the second part, benefits of online markets have been discussed which has resulted in fair competition, efficiency and overall consumer welfare. It looks at key technological changes, which has triggered Virtual Competition, i.e. Big Data & Analytics and the complex algorithms. This innovation has literally replaced the invisible hand with the digital hand of competition and given a competitive edge over brick-and-mortar world. The third part discusses the Flipkart-Myntra deal which took place in India, to highlight as to how the edifice of e-tail are given a boost by laws, thus affording them an opportunity to further manipulate these laws to their favour. The fourth part brings into picture the role of Big Data and Data Analytics in aiding manipulated competition in the virtual space. The fifth part discusses the case of abuse of dominant position by Google, which was recently adjudicated upon by the Competition Commission of India.

The sixth part explores as to what happens in the digital world when competitors collude online? The online collusion in the digital market is possible because of the algorithms, which can possibly facilitate cartelization and other illegal activities. In this part, the article examines various scenarios in which computer algorithms can promote collusion. The seventh part deals with the enforcement challenges with respect to ‘Tacit Collusion’ and

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<sup>7</sup> *Ibid.*

‘Artificial Intelligence’ scenario discussed already in the sixth part. In the eighth part, the author explains the scenario in which the firms could discriminate between customers (behavioural discrimination) by charging different prices in order to maximize the profits of the companies. Big Data tools come handy in enabling price discrimination and thus, reducing overall consumer welfare.<sup>8</sup> After dealing with the mirage of competition, the ninth part explores the most important question i.e. whether the replacement of invisible hands with digitized hands needs to be regulated by the government and the possible competition law measures that could be enforced by the competition agencies. Finally, the article concludes with an epilogue to the article, while summarizing concluding thoughts and discussing the way forward.

## **II. The promises of a digital algorithm economy**

The Internet world today has made our life simpler and easier. Sitting miles away, we can order a book on amazon, which might be solely available in the UK market, and the book will be at our doorstep within days. The digital world looks so competitive and is only expected to grow by leaps and bounds due to its economic efficiency features. The availability of search engines and PCWs<sup>9</sup> has facilitated cheaper travels. The Financial Conduct Authority of the UK estimates that one third of the 26.6 million auto insurance policies written in 2013 were sold through PCWs.<sup>10</sup> The rationale behind online commerce is to promote greater transparency and ease of doing business. It also solves the problem of asymmetric information where both the buyers and sellers are equally informed about the product being sold. Information plays a crucial role in leveraging a level playing competitive field and advancing both economic and consumer welfare.<sup>11</sup> One of the features of ‘perfect competition’ is free flow of information, which shall benefit the consumers

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<sup>8</sup> Ariel Ezrachi and Maurice E. Stucke, *Virtual Competition: The Promise and Perils of the Algorithm driven Economy* (Harvard University Press 2016) pt III, pp. 83-144.

<sup>9</sup> Siobhan L.M. Kahmann and Kevin Coates, ‘Price comparison websites: the UK’s CMA weighs in on the Competition law, data protection and consumer protection requirements’ (*Lexology*, 3 October 2017) <[www.lexology.com/library/detail.aspx?g=482bb9fb-efb2-4762-a2ed-c10e5dfdd8f8](http://www.lexology.com/library/detail.aspx?g=482bb9fb-efb2-4762-a2ed-c10e5dfdd8f8)> accessed 9 December 2018.

<sup>10</sup> Financial Conduct Authority, Thematic Review, ‘Price comparison websites in the general insurance sector’ July 2014 <[www.fca.org.uk/publication/thematic-reviews/tr14-11.pdf](http://www.fca.org.uk/publication/thematic-reviews/tr14-11.pdf)> accessed 10 December 2018.

<sup>11</sup> Michael E. Porter & Victor E. Pillar, ‘How Information Gives You Competitive Advantage’, *Harvard Business Review*, July 1985.

ensuring better quality of goods and services. Market transparency, the OECD<sup>12</sup> has noted, ‘increases efficiency by reducing customer’s search costs and allowing suppliers to benchmark their performance with that of the competitors.

Tim Roughgarden<sup>13</sup> explains the problem of information asymmetry, especially how it affects the choices available to consumers as follows. In the case of a number of sellers, of whom some sell a lower quality product, accompanied with information asymmetry, the buyer is unable to distinguish (due to lack of information) between products of vastly different qualities. As a result, the customer is willing to purchase either quality at similar prices. Similar situation can also occur in the online retail arena.

Consider the online advertising market, such as the market for sponsored links on a search engine results page. The sellers are the advertisers, and the goods being sold are clicks to various landing pages. The buyers are search engine users. Clicking on a sponsored link corresponds to buying a good. The value of the good (to a buyer) corresponds to the quality of the landing page. Note that the search engine itself is neither the buyer nor the seller, it’s just the platform that enables the transaction, and it collects a transaction fee in the form of a payment for each click. There is again asymmetric information, with advertisers much better informed about the quality of their own landing page than the buyers. If the buyer is unable to distinguish between high-quality and low-quality ads (and the search engine doesn’t do it for her), then her propensity to click will be driven by the average ad quality. If high-quality ads are not treated as such, it can lead to the exit of the highest-quality ads from the market. This lowers the average ad quality, and hence the propensity of users to click on ads, and hence the search engine’s revenue. The ultimate result would be a market of pure click bait, with users almost never clicking on ads.

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<sup>12</sup> Organisation for Economic Co-operation and Development, ‘Unilateral Disclosure of Information with Anti-Competitive Effects’, DAF/COMP (2012), 7 (Paris: Organisation for Economic Co-operation and Development, October 11, 2012), 11. As cited in Ariel Ezrachi, ‘Virtual Competition: The Promise and Perils of an Algorithm Driven Economy’, Harvard University Press, Cambridge, Massachusetts, 2016, p. 4.

<sup>13</sup> Tim Roughgarden, ‘Incentives in Computer Science’, Lecture 12: Asymmetric Information and Reputation Systems’ (Stanford, 2 November 2016) <<https://theory.stanford.edu/~tim/f16/l12.pdf>> accessed 25 October 2018.

Issues such as biased rankings displayed by search engines exacerbate these problems. This matter is discussed with specificity to the case of Google in the course of the article. Further, information brought to the consumer is not free from manipulation by the retailers in basis of what they learn through Big Data analysis.

Even though there are hindrances in achieving complete symmetry of information in the online market, it is undeniable that the Internet as a platform for commerce has made information far more accessible than in its physical counterpart. A move has been made towards a perfect competition scenario, which justifies the ‘Efficient Market Theory (EMT)’<sup>14</sup> under which the stock prices are indicative of all the available information. Ray Ball in his article<sup>15</sup> has merged two insights to the definition of EMT. Firstly, that competition enforces a correspondence between revenues and costs. If there are profits in excess, new entrants shall either reduce or eliminate them. The second, which is Gene Fama’s,<sup>16</sup> is to view changes in asset prices as a function of the flow of information to the marketplace. Ray Ball thus interprets this as: competition among market participants causes the return from using information commensurate with its cost.<sup>17</sup> Even Hayek (1945) has argued that prices do reflect, in a reliable manner, the ‘true value’ of the traded object.<sup>18</sup>

Similar to the cardinal features of perfect competition, Virtual Competition allows low entry barriers and opportunity to expand without many hurdles. It is likely that if a fellow competitor increases the price of his goods online, consumers have an easy option to switch online to cheaper available alternatives be it *intra-brand* or *inter-brand*. However, this is not without its own policy challenges. While the Internet, in which the e-commerce industry is embedded, boasts of easy access of information to its users and allows

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<sup>14</sup> Jeremy J. Seigel, ‘Efficient Market theory and the Crisis’ (2009) *The Wall Street Journal* <[www.wsj.com/articles/SB10001424052748703573604574491261905165886](http://www.wsj.com/articles/SB10001424052748703573604574491261905165886)>, accessed 25 August 2018.

<sup>15</sup> Ray Ball, ‘The Global Financial Crisis and the Efficient Market Hypothesis: What have we learned?’ (2009) <[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=150281](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=150281)> accessed 15 January 2018.

<sup>16</sup> Eugene Fama of the University of Chicago originally put the EMT forth in 1960.

<sup>17</sup> Financial Conduct Authority, Thematic Review, ‘Price comparison websites in the general insurance sector’ July 2014 <[www.fca.org.uk/publication/thematic-reviews/tr14-11.pdf](http://www.fca.org.uk/publication/thematic-reviews/tr14-11.pdf)> accessed 10 December 2018.

<sup>18</sup> Prof. Oren Sussman, ‘Learning by trading’, Chapter 8, First Principles of Financial Economics 2015-2016 at p. 2, Oxford University Class Notes for the MLF 2015-2016.

customers to compare quality and prices of a range of products easily, thereby heightening the competition in the market, the industry was pushed itself, in response, into a consolidation phase. Firms that were unable to invest in technology and infrastructure to retain demanding customers started merging with other firms or allowing themselves to be acquired by larger players in the market. Consequently, the e-commerce industry has seen a move towards, arguably, its own monopolization. Backed by high valuations, start-ups have been able to augment their market share to stand shoulder to shoulder with giants that emerged decades ago. E-commerce companies like Flipkart (which recently acquired Myntra, Adiquity, Oppiterate), Snapdeal (which acquired Free-charge) and Ola (which acquired Taxiforsure) have become leaders of the industry within a few years of their establishment.

This signals the need to reform legal regimes with advancement in e-commerce. A natural benefit of a shift from physical to online markets should be lower entry barriers, given the efficiency of the Internet as a disseminator of information. If investment and competition policies do not change at the pace with which e-commerce flourishes, players already established in the market will, in fact, find means to consolidate their position, making entry more difficult for new comers.

Optimization of costs can lead to better productive and allocative efficiency, thus facilitating innovation in the relevant product market.<sup>19</sup> The digital commerce has also helped in reducing the concentration of power in the hands of one player, making monopolization of the market more difficult. This can in return help in aligning the price of the product being sold to its marginal cost. Therefore, it can be said that online markets can free us from the traditional competition law problems like monopolies and advance better competition. However, even this notion is challenged by what was seen in the Flipkart Myntra deal.

Another advantage of digital commerce is that it reduces the time that a customer spends in going to grocery stores, thus lowering the search costs. The customers can order them online at cheaper prices given that it also leads to reduction in seller's costs of procurement. For example, PCWs helps the

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<sup>19</sup> Ezrachi, *Virtual Competition*, pp. 1-27. He writes about the remark of then the Office of Fair Trading (OFT), now the Competition and Markets Authority (CMA) in the UK that the Internet allows for a much swifter search and comparison across a wide variety of choice factors including price, dates, quality and location.

consumers in making an informed decision by filtering the most relevant choices as per their tastes and preferences.

### **III. Monopolisation of E-Commerce in light of Flipkart-Myntra Deal**

Since its inception in 2007, Flipkart has grown into an online retail giant valued at \$99 billion. The sudden spurt in the growth of Flipkart is owed to venture capital funds from Accel India, Tiger MIH, ICONIQ Capital and private equity investors, amongst other entities. By October 2013, the company had raised of \$360 million, the largest investment raised by an e-commerce firm in India. Another stride made by the company was its acquisition of online fashion outlet, Myntra.

This transaction has come about in the immediate aftermath of the entry of Amazon in the e-commerce scenario of India. Naturally, it is seen as a strategic move to consolidate its position in the market in the face of a tough competitor. The acquisition, while the biggest seen by Flipkart, is not the first instance of this market strategy being implemented by the start-up. It has previously acquired smaller players such as WeRead, a social book discovery tool (2010), Mime360, a digital content platform company (2011) Chakpak.com (2011) Letsbuy.com (2012).

However, unlike these previous acquisitions, the Flipkart– Myntra deal has not entailed the absolute integration of the two entities. Both firms, which shared a large customer base even prior to the merger, continue to operate as separate brands. Flipkart's sail, however, has been far from smooth. It has faced litigation on allegations with respect to the competition law of the nation and has also had to restructure itself to skirt violations of the FDI policy of India. The Flipkart- Myntra deal, when looked at in the context of these encumbrances begs the question: is the deal symptomatic of lacunae existing in the laws that govern it?

Broadly speaking, e-commerce firms can be said to be structured as per either the marketplace model or the inventory-based model. A firm is said to be structured as per the former if it merely acts as an online medium between a buyer and seller. Revenue of such a firm would come from the commission charged by it for providing services as an online intermediary. Firms that also have ownership of the goods and services supplied through their online portal embody the latter. The Foreign Direct Investment ("FDI") policy of India describes e-commerce as the buying and selling by firms through such online

portals and disallows FDI in it. Thus, while the FDI policy disallows FDI in firms working on an inventory-based model, no such restrictions are placed on the marketplace model. Consequently, the operations of Amazon and e-bay in India are restricted to providing services as an online portal to sellers who have attracted no FDI. Flipkart Online Services Private Limited (“FOSL”), incorporated in 2008, however, has incorporated another company, WS Retailers in 2009 for which Flipkart became the online conduit to consumers. In essence, FOSL began to act as an online portal to a seller that it owned. As the business of Flipkart abounded, it also attracted scrutiny as to its compliance, or lack thereof, with FDI policy. Flipkart, subsequently, transferred ownership and management of WS Retailer to a third party. While the ties between the two entities are now formally severed, WS Retailers continued to be one of the largest suppliers to Flipkart. It also enjoys a certain advantage over other suppliers: “some of the bestselling products on flipkart.com like Moto brand of Motorola and Xiaomi brand smart phones are exclusively sold by WS Retail”. This goes to show that not only is this edifice of e-tail given a boost by laws, it also has the capacity to further manipulate these laws in its own favour.

#### **IV. The role of Big Data**

The first question to be answered is: What is Big Data? Big data can be referred to any kind of data, however for competition purposes, it can be defined as extremely large data sets that may be analysed computationally to reveal patterns, trends, and associations, especially relating to human behaviour and interactions.<sup>20</sup> As Ezrachi writes in his book referring to the work of A. Mitra<sup>21</sup>, that Big Data has commonly been characterized by *four Vs*: the *volume* of data; the *velocity* at which the data is collected, used and disseminated; the *variety* of information aggregated and the *value* of the data. He further writes that the use of Big Data and its value have increased with the rise of Big Analytics: the ability to design algorithms that can access and analyse vast amounts of information.<sup>22</sup>

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<sup>20</sup> ‘Big Data: What it is and Why it matters?’ <[www.sas.com/en\\_us/insights/big-data/what-is-big-data.html](http://www.sas.com/en_us/insights/big-data/what-is-big-data.html)> accessed 19 December 2018.

<sup>21</sup> A. Mitra and J.G. Lynch Jr., ‘Toward a Reconciliation of Market Power and Information Theories of Advertising Effects on Price Elasticity’ (1995) *Journal of Consumer Research*, s. 64.

<sup>22</sup> Ezrachi, *Virtual Competition*, p. 15.

Today online platforms like Amazon.com are way ahead than the traditional brick-and-mortar retail sector. What makes former more successful is the tool, which has led to a new economic order i.e. the evolution of Big Data & Analytics and self-learning algorithms. The very existence of Kaggle, a Google owned entity that specializes in and offers data science services in testament to the immense role that Big Data plays in e-commerce. A classic example of this is the drastic fall in revenue of the Walmart stores in the US post the upsurge in online trading.<sup>23</sup> Walmart has in fact turned to Kaggle to crowdsource talent through the data analytics competition platform provided it. It seeks to have the data scientists at Kaggle analyse historical data pertaining to sales of Amazon in order to provide it information as to how sales can be boosted.

The impact of Big Data and Big Analytics is most clearly seen through the success story of Amazon. Ezrachi in his book has compared the business strategy of Amazon to those of the brick-and-mortar retailers to illustrate as to how Walmart's distributional efficiencies from its brick-and-mortar store model is not getting translated to the data-driven analytics and dynamic pricing in the online world.<sup>24</sup>

Amazon has huge variety options available at the disposal of consumers in comparison to any other physical retail store.<sup>25</sup> It also possesses an unparalleled repository of information, i.e. Big Data that it has collected from its 152 million consumers. It uses computer algorithms to adjust pricing automatically rather than manually as per this information procured from the analysis of this data. These algorithms scoop personal and market data to match the best prices for the products available on shelf. The remarkable feature of this mechanism is that just like perfect competition it adjusts to market conditions revising the prices accordingly vis-à-vis its competitors. Online companies are quick in analysing personal data and may collect huge chunk to the extent of controlling the online markets. Not only does Amazon

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<sup>23</sup> Justin Lahart, 'How Wal-Mart's store Closings Paint Wider Retail Picture: Shift to Online Sales Shows difference between Retailing Haves and Have-nots' *The Wall Street Journal* (15 January 2016).

<sup>24</sup> Organisation for Economic Co-operation and Development, 'Unilateral Disclosure of Information with Anti-Competitive Effects', DAF/COMP (2012), 7 (Paris: Organisation for Economic Co-operation and Development, October 11, 2012), 11. As cited in Ariel Ezrachi, 'Virtual Competition: The Promise and Perils of an Algorithm Driven Economy', Harvard University Press, Cambridge, Massachusetts, 2016 at p. 4.

<sup>25</sup> 'Google, Facebook and Amazon are increasingly dominant: How should they be tamed? Leader' *The Economist* (20 January 2018) 11.

know what a consumer wishes to pay for a product, it has also gained tremendous insight on what they want to buy through big Data. It uses the 'item similarity method' and makes recommendations, thereby shaping the perceptions of its consumers as to what they should purchase. All in all, Amazon, the world's largest online retailer, knows what you wish to buy and for how much. Where it doesn't, it can more or less create this information by shaping consumers opinions through the recommendation system on basis of click-stream data and historical purchase data of all its 152 million customers, each of whom is shown customized results on customized web pages.

More recently, Amazon has filed a patent for an algorithm-based system, officially known as 'method and system for anticipatory package shipping', which can predict where a product must be shipped before the consumer places an order. This can massively cut down Amazon's delivery time, giving it an edge over its competitors. The patent summary describes a method for shipping a package of one or more items 'to the destination geographical area without completely specifying the delivery address at time of shipment', with the final destination defined en route.

Ezrachi has referred to the work on Joe Lindsey<sup>26</sup> to highlight the role of 'Boomerang' which offers its clients a 'Dynamic Price Optimizer' in order to better compete against online giants like Amazon. Lindsey writes that the optimizer starts by analysing pricing data from a retail client and its competitors. But the lynchpin here is the proprietary algorithms which incorporate sophisticated game theory and portfolio theory models, filtering the data for almost any variable or desired outcome. Thus, Big Data and Big Analytics would be of minimal value if companies could not process them speedily and use them further to develop such algorithms whose capacity to learn increases with the quantity of relevant data being processed. Given the nature of mutually reinforcing relationship between Big Data and Analytics, it cannot be doubted that in future people would be able to talk to Messenger

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<sup>26</sup> Joe Lindsey, 'This Software Company Wants to Help Retailers Compete against Amazon', (*Entrepreneur*, 29 October 2014) <[www.entrepreneur.com/article/238454](http://www.entrepreneur.com/article/238454)> accessed 31 December 2018.

bots just like they talk to friends<sup>27</sup>, Facebook CEO had Mark Zuckerberg remarked this.

In light of the above, the possible developments could lead to a scenario of ‘data advantage’ amongst companies in order to harvest greater profits in the market. Firms would be quick enough to change their strategy to start relying more on personal data. As the online sellers would begin to rely on Artificial Intelligence and algorithmic pricing, it is likely that their rivals will be tempted to develop ‘smart’ algorithmic pricing in order to sustain the competitive pressure.<sup>28</sup>

## **V. The case of abuse of dominant position by Google**

### **1. Online platforms**

As briefly mentioned in the introduction, the Competition Commission of India recently imposed a heavy penalty on Google for abusing its dominant position in online general search and advertising services. The order by the Commission impeaches Google’s activities while acting as a ‘platform’ for connecting internet users with content providers/advertisers. Different from the one-sided markets which involve a direct communication between buyers and sellers, ‘Two-sided platforms’ bring together multiple user-communities that want to interact with each other”, notes Jean Tirole, the Nobel Laureate. Since activity on each side of a ‘platform’ contributes to its growth and market power, a comprehensive analysis of all the sides is required in such cases.

Examining Google as a ‘platform’, the Commission was able to dispel the contention that Google’s services are provided to Internet users for ‘free’. It held that ‘Internet users form consideration by providing their attention or “eyeballs” to the search result pages’. Interestingly, this is the first time the Commission has so elaborately taken into account the two-sided nature of a digital platform, unlike earlier cases involving entities like Amazon, Uber *etc.*, where it was lacking. The only time Commission acknowledged the peculiarities of a platform in its analysis was in the case against *Ola Cabs* in

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<sup>27</sup> Ben Popper, ‘Mark Zuckerberg thinks AI will start outperforming humans in the next decade’, available at (*The Verge*, 28 April 2016) <[www.theverge.com/2016/4/28/11526436/mark-zuckerberg-facebook-earnings-artificial-intelligence-future](http://www.theverge.com/2016/4/28/11526436/mark-zuckerberg-facebook-earnings-artificial-intelligence-future)> accessed 7 January 2018.

<sup>28</sup> Ezrachi, *Virtual Competition*, p. 15.

2017, wherein also it fell short of a detailed discussion. This shift in Commission's approach is shall have far reaching consequences for regulating entities operating in the cyberspace.

## **2. Search Bias and Special Responsibility**

The Commission found Google to be engaging in 'search bias by showing specialized results designs. The search results run on algorithms which are designed by Google. Thus, this process is most likely to be automated. In that case, Google has the flexibility to intervene with the self-learning algorithms and distort the ranking displayed on the SERP (Search Engine Results Page) to its advantage.

This raises two possible competition law violations: *Firstly*, Google favouring its own products and services while displaying results on SERP. Being a dominant entity, Google's SERP ranking may be justified, however, this should not lead to discrimination against its competitors. The rationale for online platforms is to promote greater transparency and to solve the problem of asymmetric information where both buyers and sellers are equally informed. In this case, as also suggested by the Commission, Google could timely disseminate information about the algorithmic changes in such a manner that it does not compromise on its competitiveness yet maintaining its transparency. *Secondly*, based on the user's search history, Google has access to a huge amount of personal data. Google can translate this Big Data to the data-driven analytics and dynamic pricing in the digital world. This could further lead to a situation where Google leverages its Big Data power to harvest profit in its vertical market (Youtube, Google News, Google maps, etc.) to the disadvantage of other competitors.

Thus, by virtue of being in a position of strength, Google must ensure that a system of undistorted competition is guaranteed through equality of opportunity to not only online web search and advertising markets but also to all the online markets, as they are all being accessed through search engines. Google's "special responsibility" has been declared unequivocally by the Indian regulator following European Commission's stand that 'dominant undertakings have a *special responsibility* not to impair genuine undistorted competition in the market'.

### 3. Way Forward

Digital interfaces (platforms) between buyers and sellers promise – increased transparency, wider range of choices, swift delivery, and savings on time and unwanted transaction costs — make the online mode of doing business appear more attractive for competition. Powered by technological innovation and efficiency, these platforms have the potential to weed out inefficient market players and government intervention may have a ‘chilling effect’ on virtual competition. However, can a non-interventionist approach be justified over an illusionary competition on platform markets?

The Google case has brought into light the possible illusionary image of the competitiveness of online platforms and markets. The question that concerns is how to ensure that the ‘digitized hand’ is as good as the ‘invisible hand’ of competition? With the evolution of challenging domains like Big Data & analytics, self-learning algorithms and Artificial Intelligence, regulatory enforcement has become a complex issue. In such a scenario, there is a need to shift towards ‘smart regulation’ in a data-driven market, which understands the dynamics of ‘digitized hands’.

Smart regulation focuses on closing the policy gap while investing more in policy simplification and evaluation thereby focusing on delivering good quality proposals. This shall help the competition agencies in developing a strong theory of harm in order to establish a violation and while prosecuting individuals/firms engaging in advanced and complex collusive behaviour that involves the difficult issue of human accountability of a computers’ behaviour. An ideal scenario could be building a holistic framework (including competition law or *sui generis* regulation for digital markets, or both) that prevents enterprises like ‘Google’ from attaining a ‘God’s-view’ of the market, promotes healthy virtual competition, advances consumer welfare, safeguards our privacy, well-being and democracy.

### VI. When computer algorithms facilitate collusion

*We will not tolerate anti-competitive conduct, whether it occurs in a smoke-filled room or over the Internet using complex pricing algorithms. American consumers have the right to a free and fair marketplace online, as well as in brick and mortar businesses*

-Bill Baer, U.S. Department of Justice, 2015

Usually under the U.S. Antitrust law, humans are put behind the bars if they engage in price collusion<sup>29</sup> but what could be the possible scenario if the computers engage in price fixing through the rise in pricing algorithms? Cartels even if it is not materialized are considered anti-competitive by object in the U.S.<sup>30</sup> The characteristic of cartels is that it usually happens in secret and it is difficult to bust them. Human agents tend to rig bids, allocate prices in agreement and to reduce output by resorting to this route. It is much easier to collude and operate rather compete fairly in the market. However, the nature of cartel activity today has evolved when people are using pricing algorithms to collude. Looking beyond the tale of co-agents sitting together to conspire using computers, pricing algorithms widen the circumstances under which the anti-competitive activity takes place making it more elusive, subtle and not so hard-core cartel like formation. There are various scenarios as discussed below wherein the computers could facilitate more evolved method of price-collusion.<sup>31</sup>

### **1. The Messenger scenario**

Messengers in this context are the technological extension of human will<sup>32</sup>. Humans in this case are the executing agent where algorithms are the messengers, which the cartel members usually use as a tool to collude. Like the classic cartel agreements involving human agents, such type of messenger scenario is not difficult to establish and is straightforward. Under this scenario, computer algorithms are used to facilitate information exchange by monitoring the cartel activities. The person being prosecuted cannot take the defence that the computer was the perpetrator, as it needs to be examined from the human prism. In order to establish such types of cartels, the antitrust enforcers could possibly look at the ‘object’ or ‘per se’ illegality to establish violations and impose fines on the companies.<sup>33</sup> The presence of algorithm as

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<sup>29</sup> Einer Elhauge and Damien Geradin, *Global Competition Law & Economics* (2<sup>nd</sup> edn, Oxford and Portland 2011) p. 85.

<sup>30</sup> *Ibid*, p. 86.

<sup>31</sup> Ezrachi *Virtual Competition*, pp. 83-144.

<sup>32</sup> *Ibid*, p. 44.

<sup>33</sup> As cited in *Ibid*, p. 43: agreements among competitors that ‘tamper’ with price structure are per se illegal. *United States v. Socony-Vacuum Oil Co.*, 310 U.S. 150, 221 (1940). ‘Even though members of the price-fixing group were in no position to control the market, to the extent that they raised, lowered, or established prices they would be directly interfering with the free play of market forces.’

an ‘intermediary’ just facilitates collusion even though the perpetrators might feel less guilty on account of distanced decision-making.

## 2. Algorithm based Hub and Spoke

In the traditional hub-and-spoke model, the computer algorithms are used as central hub to coordinate competitors’ prices and other activities. Even though computers like humans do not directly communicate their decisions, however their action could be attributed to horizontal collusion. The ‘hub’ here is the main players/or individual player, which coordinates all the activities of the other players i.e. the ‘spokes’ either collectively or individually. In *United States v. Lapier*<sup>34</sup>, the U.S Supreme Court under para. 8 has noted that ‘unlawful conspiracy may and often is formed without simultaneous action or agreement on the part of the conspirators.’ Ezrachi writes that in order to show a single hub-and-spoke conspiracy, rather than multiple independent conspiracies, there must be a ‘rim’. Thus, there should be an overall awareness of the conspiracy such that they had a reason to believe that their own benefits are contingent upon the overall success of the entire venture. In *United States v. Apple Inc.*<sup>35</sup> also called the U.S. e-books case, Apple was held guilty of deliberately increasing prices of e-books along with five other big publishers. Apple in this case by virtue of being a large platform exploited the opportunity to distort competition in the market.

Applying the traditional model to the algorithm-fuelled hub-and-spoke, it can be understood in way such that the computer algorithms execute the ‘hub’ function to facilitate collusion among the competitors. Today algorithmic pricing has made it quick to react to market dynamics. Usually the competitor outsources the pricing mechanism to an upstream supplier’s pricing algorithm. As also explained by Ezrachi and Stucke<sup>36</sup> that in the online market, the competitors usually do not interact directly with each other, however they all use the upstream suppliers’ pricing algorithm. Thus, a single algorithm is now being used by many competitors operating on the same platform, which also implies, that the prices now will be automatically aligned, when they all are actually using a similar ‘brain’ or ‘logic’ to determine their pricing decisions.

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<sup>34</sup> No. 13-30279, 2015 WL 4664689 para. 8.

<sup>35</sup> 952 F. Supp. 2d 638, 708 (S.D.N.Y. 2013).

<sup>36</sup> Ezrachi, *Virtual Competition*, p. 48.

### 3. Algorithm enhanced conscious parallelism

Two other online collusion scenarios could possibly be, which could rather be even more challenging is algorithm enhanced conscious parallelism or Tacit Collusion<sup>37</sup> and a scenario where Artificial Intelligence operating at enhanced market transparency could lead to an anti-competitive outcome.<sup>38</sup> Both these circumstances are extremely difficult to establish given the complex nature of the algorithms being used and difficulty in identifying the human perpetrator. Under the former, pricing algorithms act as predictable agents and respond accordingly to the market dynamics. It can be seen that there is no actual agreement-taking place between the executives however each firm unilaterally operates through its pricing algorithm but they are fully aware that each firm in the industry will be using pricing algorithm, thus facilitating tacit collusion or oligopolistic coordination or conscious parallelism.<sup>39</sup> In such cases it is difficult to get hard-core direct evidence but can be prosecuted premised on the anti-competitive intent of the firms.

### 4. Artificial Intelligence

Under the AI form of online collusion, Artificial Intelligence induced competition can be highly deceptive. As envisioned and explained by Stucke<sup>40</sup> in his book on Digital Competition, the technological advancement in terms of the enhanced ability of the computers to process huge amounts of data at real time speed could literally lead to achieving a God-like or divine view of the market. This could amplify tacit collusion. Further, with experience, AI will be better placed to build even more sophisticated algorithms, which may from the lens of Digital Eye give us a perfect image of virtual competition, but in reality, we might not end up benefitting from this technology at all.

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<sup>37</sup> *Ibid*, p. 37.

<sup>38</sup> *Ibid*.

<sup>39</sup> *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209 (1993).

<sup>40</sup> Maurice E. Stucke, *Big Data and Competition Policy*, Oxford University Press (2016).

## VII. Enforcement Challenges

### 1. Tacit Collusion

As seen above in Messenger and Hub-and-spoke model, it is easy to establish the existence of an agreement but under the other two scenarios conscious parallelism and Artificial Intelligence- it is difficult to establish an agreement *per se*. Under conscious parallelism, the firms act completely in their individual interests through the algorithmic pricing. The key to making tacit collusion work, in digital market is, increasing transparency. As there is more information available with the firms, it is more likely for them to unilaterally design algorithms to deliver predictable outcomes and react in a way as desired in alignment with the market changing dynamics. As other companies also adapt to similar algorithms, the possibility of tacit collusion cannot be undermined. Thus, it might be relevant for the competition authorities to look at the anti-competitive intent in such cases.

But the question that arises is: Whether using similar algorithms to distort competition without the evidence of any illegal agreement should be brought under the scanner of Competition law? The reason being that conscious parallelism behaviour by firms in online market leading to equilibrium above competitive levels does not attract competition provisions.<sup>41</sup> Legally, no competition authority will condemn transparency. Though, firms using advanced technology to discriminate between customers and raising prices may not be desirable. Thus, the main challenge before the competition authorities is to bring under its scanner such algorithm developers who program machines to unilaterally support tacit collusion. Prima facie, in case of mergers<sup>42</sup> that may lead to a scenario of tacit collusion may be prohibited even before it is consummated but in case of online markets, the competition agencies lack enforcement tools. It might be prosecuted under ‘unfair trade practice’, which is available in many jurisdictions. As in this case, ‘anti-competitive intent’<sup>43</sup> is a strong ground for establishing a cartel like activity;

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<sup>41</sup> 1993 4 CMLR 407.

<sup>42</sup> A. Ezrachi & M.E. Stucke, ‘Algorithmic Collusion: Problems and Counter Measures’, Roundtable on Algorithms and Collusion, OECD, Directorate for Financial and Enterprise Affairs Competition Committee, May 31, 2017, p. 23 <[www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP/WD%282017%2925&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP/WD%282017%2925&docLanguage=En)>, accessed 31 January 2018.

<sup>43</sup> *Ibid*, p. 21.

a legislation to counter excessive transparency can do its bit when the competitors in the market abuse this transparency.

## 2. Artificial Intelligence (AI)

Taking the discussion to an advanced level, the enforcement could be even more challenging in case of AI. At least, in the messenger, hub-and-spoke, there was a human agent to facilitate algorithmic pricing. Further, in case of tacit collusion, the ‘anti-competitive intent’ could come to disposal. However, in case of AI, there is complete isolation of the ‘human’ element from algorithms making strategic decisions. It is almost impossible to establish an anti-competitive intent where even the users will not be able to detect as to when did the machines end up colluding tacitly. Hence, the most probable question which arises is whether competition authorities should prosecute those firms which never even predicted such a ‘scenario’? With no express agreement, no anti-competitive agreement and no human interference, what will the future be of the implications of Competition law on AI?<sup>44</sup> The answer to that at the moment could be that it might lead to a scenario where nobody is to be blamed and the reduction of overall ‘consumer welfare’ could be a possible side effect of Artificial Intelligence.<sup>45</sup>

While developing future system for AI, it is important to bear in mind the standard-setting process to safeguard the future balance of competitive forces in the market and to not to overlook the legal challenges posed by AI. It raises questions about the relationship between man and machine, the ability of the humans to control the ‘deep-learning’ algorithms which are fed by data, the liability of the humans, accountability for machine activities and the competition liability of algorithm creators and users. Take, for example, the sophisticated pricing algorithms being used by commercial giants in the online platform markets. They raise a potential risk of tacit collusion. *Prima facie*, they appear to be promoting information symmetry and perfect price transparency, however they contribute to data driven business models that aid

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<sup>44</sup> Paul Mozur, ‘Google Alpha Go Defeats Chinese Go Master in Win for AI’, *The New York Times* (23 May 2017) accessed 23 July 2018.

<sup>45</sup> Charlie Wood, ‘Bot makes poker pros fold: What’s next for artificial intelligence?’ *The Christian Science Monitor* (4 February 2017) <[www.csmonitor.com/Technology/2017/0204/Bot-makes-poker-pros-fold-What-s-next-for-artificial-intelligence](http://www.csmonitor.com/Technology/2017/0204/Bot-makes-poker-pros-fold-What-s-next-for-artificial-intelligence)> accessed 31 January 2018.

in predicting markets. This has helped online trading platforms to process Big Data at real time speed, thus making more accurate decisions.

The competition agencies are currently struggling with the problem of designing new tools to address the difficulties posed by AI. Evidently, it is challenging to draw a framework to determine the illegality of agreements in AI. It requires a specialist approach to study the algorithms to determine the intention of the defendants. Ironically, the rule of law components- such as transparency, predictability and accuracy prove to be harmful in the AI space. So, in such cases, it is very important to bear in mind the degree of control that the algorithm user has over the machines. Is it possible to design such algorithms that operate with proper checks and balances while safeguarding consumer welfare and also fulfil the objective of profit maximization? The answer to this is hard given the complex nature of algorithms operating on voluminous data. An alternate approach to this could be encouraging competition regulators to call for more information on the nature of algorithms being used in the computerized market environments to determine the level of transparency they end up creating in the market. However, it still remains to be seen how courts and regulators respond to this futuristic challenge posed by AI in competition law enforcement.

### **VIII. Behavioural discrimination and the role of Big Data**

Behavioural discrimination could lead to a different theory of harm apart from the ones discussed in the preceding section. With the help of data, a firm can use the same to target customers more efficiently by personalizing the products and services to their clients. Unlike the aforementioned discussion of transparency, this form of harm involves a unilateral approach to restrict transparency through differential pricing for highly differentiated products to harvest maximum profit. Today the websites that we surf show advertisements that are most relevant to us. How could this be possible? This is based on our own past research that we have done on the Internet and other platforms which end up using the data to show more relevant advertisements to us. In a way, somebody is constantly following us to understand our consumption pattern and choices. It can definitely help in reduction of search costs; however, it also leads to overall reduction in consumer welfare as it leads to behavioural discrimination. This as a result affects pricing decisions such that the vulnerable consumer groups are susceptible to more consumption and expenditure while buying products online. Today we are

manipulated by intelligent advertisements from dusk until dawn. The Internet flashes constantly with such commercials that understand our desire even before we could express them. This could also be called a world of ubiquitous ‘digital spying’.<sup>46</sup>

Differential pricing is the strategy of selling the same product to different customers at different prices. Companies usually discriminate by charging maximum price to the customer he or she is willing to pay. Companies try to capture maximum consumer surplus through differential pricing which it would not have been able to through fixed pricing. Big Data here plays a crucial in maximizing the profit of the companies, which they usually call ‘price optimization’ or ‘dynamic differential pricing’ such that the firms are using the market forces (demand & supply) to determine a competitive price. However, they actually force the consumers to buy things they didn’t even know they needed and also end up paying more than what they could actually afford. With the help of Big Data, Big Analytics and self-learning algorithms, companies are looking for better ways to discriminate. They also track the customer’s location to price a product accordingly. There have been instances where financial firms have used personalization technology to show particular credit cards to the first-time visitors of their websites.<sup>47</sup> The companies are usually involved in excessive segmentation and targeting. This tracking behaviour and data collection by the firms have with time improved the ability of the firms to discriminate amongst its customers to the extent that at times algorithms have proved more efficient in understanding our behaviour than us.

### **IX. Smart regulation by the government and the role of competition enforcers**

The competitiveness of online markets could be completely illusory. This is due to the presence of complex algorithms used by the firms with the sole objective to maximize their profits. The question that concerns is how to ensure that the digitized hand is as good as the invisible hand? The end objective of market intervention is consumer welfare. It can also be argued that price regulation and intervention by the government could have a

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<sup>46</sup> ‘Counting on too many advertisements may be bad for your health: Schumpeter’ *The Economist* (20 January 2018) p. 58.

<sup>47</sup> Emily Steel and Julia Angwin, ‘On the Web’s Cutting Edge, Anonymity in Name Only’ *The Wall Street Journal* (4 August 2010).

‘chilling’ effect on virtual competition. But is this illusionary virtual competition actually desirable over the non-interventionist approach. As Ezrachi and Stucke<sup>48</sup> writes ‘the regulatory/enforcement aim is to help promote competition, where innovation and investment flourish and to minimize all types of harms which this article has discussed in the preceding paragraphs. They further write that despite the growing appeal of conscious capitalism and shared value, many policy makers still praise the unrestrained free market, and are far more vocal over the cost of false negatives from governmental abstention.<sup>49</sup>

The importance of information in today’s world cannot be undermined. Data is the key in digital market. The ‘dynamic pricing’ can be attributed to the real time processing of huge data that the complex self-learning algorithms are able to process in very short time. In this context, the question that needs to be answered is whether with the advent of pricing algorithms, unilateral coordinated behaviour of firms, frenemy behaviour<sup>50</sup> and Big Data, is invisible hand enough to promote competition? This article seeks to answer this question in negative, as today Big Data has taken over the digital market. We need to shift towards ‘smart regulation’ in a data driven economy that could understand the dynamics of ‘digitized hands’. The Uber example even in the Indian context will be quite relevant to cite here. In Uber case, it is the algorithm that decides the base price for ride-sharing. This algorithm determines *when* to implement a surge price, for *which* areas, for how long; and to *what* extent.<sup>51</sup> Uber gives the defence of demand-supply dynamics to counter the surge pricing.

The main concern that this article seeks to address is whether it is the ‘invisible hand’ or the ‘digitized hand’ of Uber, which is operating in this case. To solve this problem, it is proposed that when firms in order to harness our personal data use Big Data and Big Analytics, why not the governments in order to effectively set a market price could do the same? This shall also

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<sup>48</sup> Ezrachi, *Virtual Competition*, p. 203.

<sup>49</sup> *Ibid*, p. 205.

<sup>50</sup> This term ‘Frenemy’, though is outside the scope of this article. However, Ezrachi has coined this term in his book on Virtual competition while answering the question as to why and how application developers and super-platforms interests even when aligned do not favour consumer welfare. He explains the Frenemy social structure to understand how the super-platforms could control the smaller and independent apps.

<sup>51</sup> Ezrachi, *Virtual Competition*, p. 209.

ensure a sense of belief amongst the consumers that the prices are as competitive, and the pricing algorithms used by the government are equally reliable. To solve the parking problem in San Francisco, the US government has developed the concept of ‘smart regulation’.<sup>52</sup> It has helped in improving parking availability and reduced peak period congestion. However, with pricing regulation, smart regulation and migration from brick-and-mortar shops to digital shopping, the anti-competitive harm is less likely to be only economic in nature. What is equally at stake is our privacy, well-being and democracy.<sup>53</sup>

There are three key enforcement challenges that needs to be addressed by competition authorities across jurisdictions: i) Does the competition agency have adequate tools to address the problems of an algorithm driven economy? ii) Who should the competition authorities hold liable in case of advanced and complex tacit collusion, involving the difficult legal issues of human accountability of a computers’ behaviour? iii) When is the appropriate time for competition agencies to intervene? The competition agencies are currently struggling with the problem of designing new tools to address the difficulties posed by virtual competition. With the need to identify new tools, the competition authorities must find a way out lest it sends a perception that large online platforms are above the law.<sup>54</sup>

In case of online markets, the entry is easier however the expansion is controlled by super-platforms, which try to reduce competition by introducing differential pricing, etc. It is difficult to identify whether it is genuine competition or not. In cases of tacit collusion in digital markets, if market participants’ algorithms can attain a God’s view, then enforcers must consider the possibility of tacit collusion beyond price and highly concentrated industries.<sup>55</sup> Further the competition authorities may overlook the problem of ‘frenemies’ as briefly discussed above, while thinking that consumers are

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<sup>52</sup> SF Park, ‘How it works’, <<http://sfpark.org/how-it-works/the-sensors/>> accessed 28 February 2018.

<sup>53</sup> Ariel Ezrachi & Maurice E. Stucke, ‘How Online Competition affects Offline Democracy’ (*Oxford Business Law Blog*, 13 February 2017) <[www.law.ox.ac.uk/research-and-subject-groups/research-collection-law-and-technology/blog/2017/02/how-online](http://www.law.ox.ac.uk/research-and-subject-groups/research-collection-law-and-technology/blog/2017/02/how-online)> accessed 2 February 2018.

<sup>54</sup> Select Committee on European Union, *Online Platforms and the Digital Single Market* (HL 2015-16, 129-X), para 373.

<sup>55</sup> Ezrachi, *Virtual Competition*, p. 219.

benefitting by seeing the huge number of apps being downloaded periodically.

Can the existing competition law be applied to the current challenges in virtual competition? In some cases, despite a theory of harm being in place, it might be difficult for competition agencies to establish a violation. For instance, the Messenger and Hub-and-spoke scenario discussed above could be brought under Article 101 of the Treaty on the Functioning of European Union (TFEU),<sup>56</sup> Section 1 of the U.S. Sherman Act and Section 3 of the Indian Competition Act, 2002, wherein the anti-competitive element can be established. Prosecution under areas like Artificial Intelligence poses a real challenge, as we really do not know when the algorithms collude among themselves and who should be prosecuted in such a case.

It is also difficult to establish a clear market power in algorithm pricing, as it would completely depend on the relevant product and geographical market being defined in this case, which is another challenge. We need to build a framework for healthy virtual competition such that it promotes competition, advances consumer welfare and safeguards the privacy of the individual. A specific legislation on privacy to give individuals more power over their personal data can arm them in this race of being tracked both online and offline. It might be useful to quote the EU Commissioners' 2016 speech where he stated "[C]ompetition law may not solve all the problems however it can make useful contribution in keeping digital markets level and open".<sup>57</sup>

## **X. Epilogue: Concluding Thoughts**

This article has explored the rise of self-learning algorithms, big data and analytics and artificial intelligence, which has led to more transparency in

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<sup>56</sup> Daniel Mandrescu, 'Applying EU Competition law to online platforms: The Road Ahead-Part I' (2017) 38 *European Competition Law Review*, p. 4.

<sup>57</sup> Margrethe Vestager, 'Competition in a Big Data World', (Munich: European Commission, January 17, 2016). As cited in Ezrachi et.al, p. 225. In a 2016 speech, EU Commissioner Vestager noted that the rise of Big Data and the role of competition enforcement: "*We don't need a whole new competition rulebook for the big data world. Just as we didn't need one for a world of fax machines, or credit cards, or personal computers. What we do need is to pay close attention to these markets and to take action when it's necessary. Competition rules can't solve every problem on their own. But they can make an important contribution to keeping digital markets level and open. So that consumers get innovative products at the right prices. And so that digital entrepreneurs, however big or small, have a fair shot at success*".

digital commerce, and a gradual decline of the traditional physical retail stores. The benefits of Big Data and algorithms are many. While they give the consumers more options to choose, better understand their needs, lowering the search costs and reducing the barriers to entry in the online market, it has led to a revolutionary change, hastening the way forward to the Fourth Industrial Revolution<sup>58</sup> (IR). The rise of these tools cannot be said to be completely bad despite the hurdles that they have created in online markets. Their use rather should be tailored in a way that it generates maximum consumer surplus<sup>59</sup>. To understand the possible challenges, the article has explored tacit collusion/conscious parallelism, price discrimination (behavioural discrimination) and various tools like Big Data and AI, which aid in formation of such anti-competitive conduct. The need to cautiously exercise these options cannot be denied. The right approach would be to first identify the challenges to competition law that these new technological advancements have posed, thereafter explore options for ‘smart regulation’ both within and outside the domain of competition law.

Yet, the competition that we perceive may be misdirected and a complete illusion. Some firms have also put a monetary value to our personal data; such is the importance of our data in online markets. Every day when we like a post on Facebook, twitter or YouTube, helps the company in identifying and matching our preferences to show similar targeted advertisements. The various scenarios that have been identified above are likely to get stronger in future given their hold in the online market. This shall further disrupt the anti-competitive equilibrium causing reduction in consumer well-being and jeopardizing our privacy to a greater extent. Less market transparency and imperfect information can cause further manipulations, however more market transparency in case of online market is causing self-learning algorithms to tacitly collude, making the task of the anti-competitive authorities more difficult to detect such cases.

As we enter into this race of data-collection, the winners of this race benefit in several ways:<sup>60</sup> (i) it gives them an opportunity to further enhance the

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<sup>58</sup> Klaus Schwab, ‘The Fourth Industrial Revolution: what it means, how to respond’, (*World Economic Forum*, 14 January 2016 <[www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond](http://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond)> accessed 5 February 2018).

<sup>59</sup> Consumer surplus is defined as the difference between the total amount that consumers are willing and able to pay for a good or service (indicated by the demand curve) and the total amount that they pay (i.e. the market price).

<sup>60</sup> Ezrachi, *Virtual Competition*, p. 239.

capability of self-learning algorithms (ii) they are now able to reap greater benefits from this collection by capturing greater value from data through advertising, etc. and (iii) using the profits generated through actions (i) and (ii) to further expand their operations and develop a market power. It is in such circumstances that it is most likely that the firm shall disrupt the competitive forces of the market by abusing their dominant position. To take it further, this market power also contributes to income and wealth inequality. Similar concerns have been voiced in many reports<sup>61</sup> wherein Big Data and information asymmetry has been said to be one of the factors causing inequality in society.<sup>62</sup>

In light of the challenges posed by an algorithm-driven economy, the development of appropriate enforcement toolbox is most crucial. It is important to understand that even when the markets appear to be competitive, this might not actually be the case. The concentration of market power and wealth in a few can be detrimental to safeguarding consumer welfare. The competition authorities must educate the consumers and potential stakeholders through advocacy programmes about the complexities involved in virtual competition. Timely intervention, correct identification of challenges with a strong theory of harm, a strong political will and consumer awareness is the road ahead to a better understanding of the promises and perils of an algorithm driven market.

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<sup>61</sup> Oxfam Report on Global Wealth Inequality (January 2016), White House Executive Order-Steps to Increase Competition and Better Inform Consumers and Workers to Support Continued Growth of the American Economy (April 15, 2016) and CEA Report of Council of Economic Advisers, 'Benefits of Competition and Indicators of Market Power', Issue Brief (May 2016).

<sup>62</sup> Joseph E. Stiglitz, 'Information and the Change in the Paradigm in Economics' (2002) 92 *American Economic Review*, pp. 460.

MERGERS BETWEEN GENERICS: HOW COMPETITION  
COMMISSION OF INDIA PROMOTES INNOVATION AND ACCESS  
THROUGH MERGER CONTROL?

**Kalpana Tyagi\***

*Indian pharma industry is popularly known as the pharmacy of the world as the industry supplies annually over 10% (in terms of volume) of the worldwide demand for pharma products. This article concentrates on the role of the Competition Commission of India (CCI) in promoting access and innovation in the Indian pharma through its merger control regime. Pursuing an interdisciplinary approach using insights from competition law, economics and corporate strategy, this article attempts to answer the question whether inorganic growth enhances efficiencies by helping parties leverage their key strengths and seek growth in new relevant product and geographic markets taking into due account the dynamics of the Indian pharma and the core competencies of the merging parties. This article discusses the theory of harm and remedies in all the pharma mergers assessed by the CCI till date.*

## **1. Introduction<sup>1</sup>**

India is popularly known as the ‘pharmacy of the world’ and the country’s pharma industry has played a vital role to ensure access to medicines to the less-privileged at highly competitive rates.<sup>2</sup> On the legal front, this has also

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<sup>1</sup> Following Acronyms are used in this article: AAEC: Appreciable Adverse Effect on Competition; AIOCD: All India Organization for Chemists and Druggists; ANDA: Abbreviated New Drug Application; API: Active Pharmaceutical Ingredients; CAGR: Compound Annual Growth Rate; CCI: Competition Commission of India; CGHS: Central Government Employees Health Scheme; cGMP: current Good Manufacturing Practice; IPRs: Intellectual Property Rights; FDA: Food and Drug Administration; FTC: Federal Trade Commission; HHIPL: Hospira Healthcare India Private Limited; NLEM: National List of Essential Medicines; NME: New Molecular Entities; NPPA: National Pharmaceutical Pricing Authority; OCPL: Orchid Chemicals and Pharmaceuticals Limited; PBMs: Pharmacy Benefit Managers; R&D: Research & Development; RoI: return on investment; SEPs: Standard Essential Patents; SCP: Structure Conduct Performance; YoY: Year-on-Year.

<sup>2</sup> For a case study discussion on India, IPRs, trade and access to affordable medicines, Sidonie Descheemaeker, ‘India, Pharmacy of the Developing World: IP, Trade and Access to Medicine’ *Jura Falconis Jg. 49, 2012-2013 number 3, pp. 560-569*

led to some critically acclaimed decisions from the Indian patent office and the Indian judiciary.<sup>3</sup> The country's pharmaceuticals industry by offering medicines at an affordable rate has played a key role in attaining the sustainable development goal number three that is 'ensuring healthy lives and promote well-being for all at all ages' - not only in India but also across the world.<sup>4</sup> In addition to this static that is price and quantity-led competition, pharmaceuticals industry has another key dimension - that is dynamic innovation-led competition. Interestingly, not only in India, but also across the world, even though the innovation debate has been central to other aspects of law such as ex-post enforcement of competition law (cartels and abuse of dominance) and Intellectual Property Rights (IPRs), scant attention has been paid to the role of merger control in promoting innovation.<sup>5</sup> In that respect, this article seeks to make a unique contribution to the literature on competition policy by assessing the role of Indian merger control in promoting competition and innovation in the pharmaceuticals sector.

This article makes the following three noteworthy contributions to the competition policy literature. First, it offers an exhaustive discussion as regards the practice of the CCI on mergers between generics. The article's concentration on the impact of mergers on competition, innovation and access in generics is a unique contribution to the competition policy literature, as to the best knowledge of the author, it is the only article that systematically and critically addresses the issue in the context of merger control. Second, by

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<<https://www.law.kuleuven.be/apps/jura/public/art/49n3/descheemaeker.pdf>> accessed 23 Nov 2018.

<sup>3</sup> Sarah Boseley, 'Novartis denied cancer drug patent in landmark Indian case' *The Guardian* (Online 1 April 2013) <<https://www.theguardian.com/world/2013/apr/01/novartis-denied-cancer-drug-patent-india>> accessed 14 April 2018. The Indian Supreme Court's decision that Novartis's improvements to its drug were an ever-greening strategy and did not merit patent protection. The judgment was welcomed by campaigners including Swiss, Geneva-based NGO Médecins Sans Frontières (Doctors without Borders). For a discussion on the boundaries set by Article 27 TRIPS Agreement and section 3(d) of the Indian Patent Act and the Novartis case, see Henning Grosse Ruse-Khan and Roberto Romandini, 'Patentability of Pharmaceutical Inventions under TRIPS: Domestic Court Practice as a test for International Policy Space', *Max Planck Institute for Innovation and Competition Research Paper No. 16-02*, pp. 23-43 published in *Mercurio Bryan* (Ed.), *Contemporary Issues in Pharmaceutical Patent Law*, Routledge Research in Intellectual Property (2016).

<sup>4</sup> Kiran Mazumdar Shaw, Leveraging affordable innovation to tackle India's healthcare challenge, *IIM Bangalore Management Review* (16 November 2017) <<https://doi.org/10.1016/j.iimb.2017.11.003>> accessed 23 Nov 2018.

<sup>5</sup> Rachel Brandenburger, Logan Breed and Falk Schöning, The Role of Innovation in Merger Control – A Hot Topic, *Competition Policy International* July 2016 (1), p. 4.

pursuing an inter-disciplinary methodology using insights from corporate strategy, competition policy and economics, the article instead of pursuing the traditional structure conduct performance (SCP) paradigm of the Harvard school, pursues a more dynamic innovation-led approach, as it first attempts to answer the following fundamental question: looking at the dynamics of the Indian generics industry and the core competencies of the merging parties, is there some merit in inorganic growth<sup>6</sup> that helps parties leverage their core competencies, such as seek growth in new relevant product and geographic markets? Finally, pursuing a case study methodology, it assesses one of the largest conditional clearance decisions by the Indian CCI to date – the three-to-two merger between Sun Pharma and Ranbaxy.<sup>7</sup>

## 2. Indian Pharmaceuticals Industry

In this section, we first discuss and distinguish between the pharmaceuticals value chain in India and that of the developing world, followed by a

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<sup>6</sup> Inorganic growth refers to growth through M&As, joint ventures and other alliances.

<sup>7</sup> Kindly note that even though the merger has been discussed elsewhere in the literature, but to the best knowledge of the author it is for the first time, that the merger has been examined critically and in-depth. Additionally, it is also the first time that a comparative and inter-disciplinary methodology has been employed to study a merger decision in the pharma sector. For a discussion on CCI's conditional clearance decision in Sun Pharma/Ranbaxy, see for instance, Shamim S. Mondal and Vishwanath Pingali, 'Competition and Intellectual Property Policies in the Indian Pharma Sector', *Vikalpa* 42(2) 2017, pp. 61-79; Shamim S. Mondal and Vishwanath Pingali, 'Competition Law and the Pharmaceutical Sector in India', *W.P. No. 2015-11-02* (November 2015), *Indian Institute of Management Ahmedabad, India, Research and Publications*; Sanchit Srivastava and Shubhashish Chaudhri, 'A Bitter Pill to Swallow – Analyzing Anti-trust Concerns in the Indian Pharmaceutical Sector', *RGNUL Student Research Review* 1(2) <[http://www.rslr.in/uploads/3/2/0/5/32050109/a\\_bitter\\_pill\\_to\\_swallow.pdf](http://www.rslr.in/uploads/3/2/0/5/32050109/a_bitter_pill_to_swallow.pdf)> accessed 7 May 2018; Kalyani Singh, 'The Rising Tide: Competition Law Enforcement in the Indian Pharmaceutical Sector', *Competition Policy International Antitrust Chronicle* November 2014(2), <<https://www.competitionpolicyinternational.com/the-rising-tide-competition-law-enforcement-in-the-indian-pharmaceutical-sector/>> accessed 7 May 2018; Sunil A Nathani and Gauri Chhabra, 'The CCI Comes of Age – Orders Divestiture for the First Time in a Merger', *International Committee: ABA Section of Antitrust Law* March 2015 Vol 1, pp. 12-13, <[https://www.americanbar.org/content/dam/aba/publications/antitrust\\_law/at311000\\_newsletter\\_201503.authcheckdam.pdf](https://www.americanbar.org/content/dam/aba/publications/antitrust_law/at311000_newsletter_201503.authcheckdam.pdf)> accessed 7 May 2018; Jyoti Kumari, 'Role of CCI in Merger Control in Indian Pharma Industry', <<https://indianbarassociation.org/wp-content/uploads/2013/02/Role-of-CCI-in-merger-control-in-india-pharma-industry.pdf>> accessed 7 May 2018; Swarnim Shrivastava, 'Taming Pharmaceutical Giants – CCI's role in merger control', *Presentation at Indian Bar Association* <<https://www.indianbarassociation.org/wp-content/uploads/2013/02/Swarnim-Shrivastava.pdf>> accessed 7 May 2018.

discussion on the nature of competition between innovators, generics and branded generics.

Even though the basic principles – in terms of industry structure and competition policy remain the same, significant differences in “patent regimes, regulatory policies, health insurances”<sup>8</sup> and innovator, branded generics or generic-led competition, means that the competitive dynamics across countries may be very different. This in turn implies that some of the challenges that one may encounter in India and other developing economies are substantially different from those encountered in the more mature economies where the citizens enjoy an extensive health insurance coverage and the healthcare industry is highly regulated and well-monitored.

A good starting point to highlight these differences is the pharmaceuticals value chain in the EU and the US<sup>9</sup> on the one hand and in India, which may closely resemble those of other developing economies, on the other. Figure 1.1 and figure 1.2 highlight the flow of product, information and money in the pharma value chain in India and in developed economies respectively. In the developed economies (figure 1.2), the industry is highly regulated and well-organized, with the regulators ensuring the quality of the product. In India (figure 1.1), the doctors prescribe the medication, the pharmacies sell it and the consumers pay for it.<sup>10</sup> Doctors, who are the prescribers of the medication are largely insensitive to the price of the medication. In addition, there is also rampant corruption in the sector, with pharma companies often bribing doctors to prescribe their products in return for various cash and non-cash benefits that may include international conferences and exotic holiday locations.<sup>11</sup> Prices are regulated by the National Regulator, the National

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<sup>8</sup> Patricia M. Danzon, Competition and Antitrust Issues in the Pharmaceutical Industry (Final Report July 2014) *The Wharton School, University of Pennsylvania*, p. 46.

<sup>9</sup> Hence, otherwise specially referred, the expression developed economies is used to refer to the EU and US.

<sup>10</sup> Kindly note an important exception to this value chain is the public sector employees. The Central Government Employees for instance enjoy the Central Government Employees Health Scheme (CGHS). The CGHS offers benefits and advantages that are similar in scope to those available in the developed economies.

<sup>11</sup> Shamim S. Mondal and Vishwanath Pingali, Competition and Intellectual Property Policies in the Indian Pharma Sector, *Vikalpa* 42 (2) April-June 2017, pp. 67-68. The authors refer to the study by CUTS International, that identified other irrational practices including evidence that doctors tended to irrationally prescribe medication when not necessarily required and prescription of generics with brand names that were available at nearby pharmacies. See also the discussion on Uniform Code of Pharmaceutical Marketing Practices (UCPMP), introduced by the Indian Government in 2015 that recommends a set of voluntary conduct to

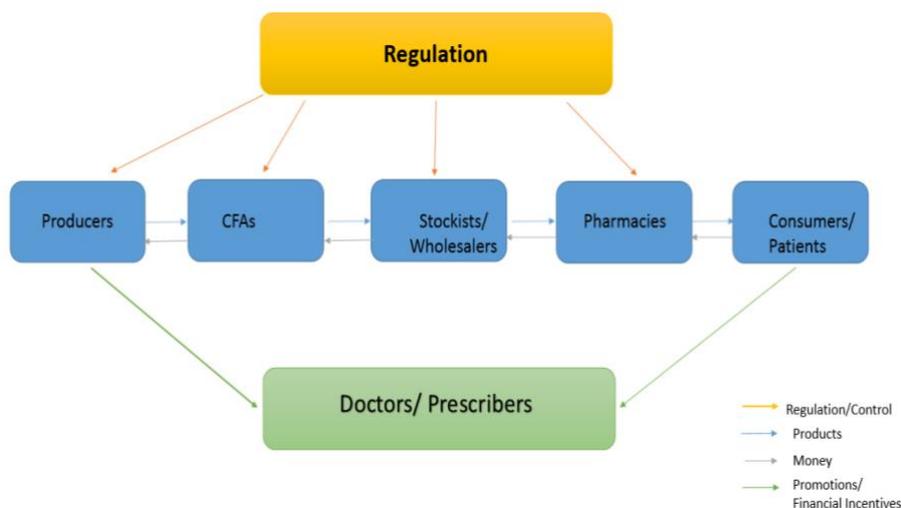
Pharmaceutical Pricing Authority (NPPA). Absence of sufficient regulatory control over quality means that in India, brand and pricing are considered as key indicators of quality. In the developed world, like in India, the doctors prescribe the medication, the pharmacies dispense it and the end consumer uses it. However, presence of insurers in the EU and the US and the presence of the pharmacy benefit managers (PBMs) in addition in the US ensures that the prices remain under control. In fact, this has been cited by the industry as one of the rationales for extremely competitive prices of generics and also a significant factor that has generated series of waves of consolidation in the US generics industry. Individual consumers tend to suffer from the classic tragedy of commons<sup>12</sup> and cannot negotiate for the best prices. Insurers and PBMs resolve this collective action problem and ensure that the prices of the products remain competitive.<sup>13</sup>

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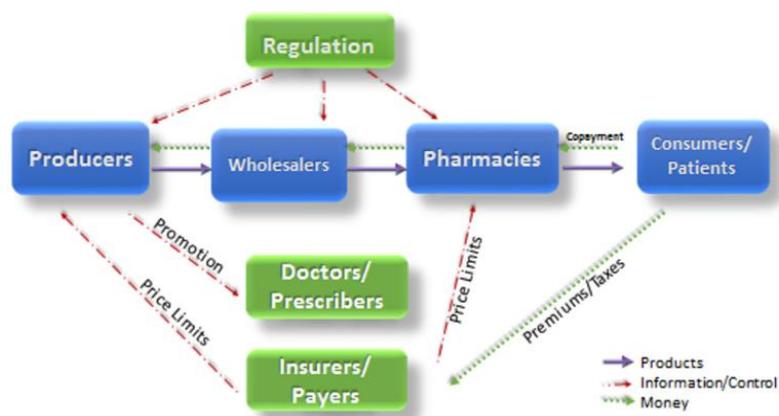
be adopted by healthcare professionals and pharmaceutical companies, though the code has so far failed to show any positive impact in the sector, at p. 68. See generally CUTS (2014) Competition Concerns in Marketing and the Distribution Segments of the Indian Pharmaceutical Industry, *OECD*.

<sup>12</sup> Garrett Hardin, The Tragedy of the Commons, *Science* 162 (13 December 1968), pp 1243-1248. The tragedy of commons refers to a collective action problem where the different agents are unable to come together and collectively negotiate a solution that may otherwise be beneficial collectively for the group. The tragedy arises on account of the fact that whereas the negotiating agent bears the cost, the benefits of the resulting advantage are collectively enjoyed by the society.

<sup>13</sup> Even though, I limit this observation here to the case of generics, it applies with equal vigour to the new drug launches.



**Figure 1.1 Value Chain of the Indian Pharma Industry: Flow of Goods, Regulation, Promotion and Money<sup>14</sup>**



**Figure 1.2 Pharmaceutical Value Chain: Flow of Goods, Information and Money (in the US and the EU)<sup>15</sup>**

<sup>14</sup> This figure borrows from the description of the structure of the Indian pharmaceuticals industry by Shamim S. Mondal and Vishwanath Pingali, *Competition Law and the Pharmaceutical Sector in India*, W.P. No. 2015-11-02 (November 2015), Indian Institute of Management Ahmedabad, India, Research and Publications, pp. 18-21. CFA refers to the Carrying (or Clearing) and Forward Agents. CFAs play an important role in the value chain on account of the tax structure in India and how taxation is divided between the State and the Center. With the coming of General Sales Tax (GST) in force, it is possible that CFA may play a less significant role in the future.

<sup>15</sup> Source: Patricia M. Danzon, *Competition and Antitrust Issues in the Pharmaceutical Industry* (Final Report July 2014) The Wharton School, University of Pennsylvania, p. 5.

Indian pharma industry is characterised by two kinds of players: First, the multinationals who largely play on their well-recognized brand name and innovative products. They control over 30% of the market (figure 2.3). Secondly, it is the domestic pharma that controls about 70% of the market and comprises amongst others, the following lead players: Sun, Lupin, Cipla, Dr Reddy's etc.<sup>16</sup> Branded generics control about 80% of the market (revenue-wise) (figure 2.1).<sup>17</sup> Not only in India, but at a global level as well, the Indian pharma industry has established itself as the largest provider of generic drugs, contributing annually over 3.6 per cent (in terms of value) and over 10% (in terms of volume) of the market.<sup>18</sup>

Indian pharma exports to over 200 countries across the world, with US as the key market - for the year 2016-2017: 40.6% of exports were to the American continent; 19.7% to Europe, 19.1% to Africa and 18.8% to Asia.<sup>19</sup> In the US generics market too, Indian pharma sector is a major player, where it controls over 30% of the market (in terms of volume) and 10% of the US\$ 70-80 billion market in terms of value.<sup>20</sup> The US generics market is better represented through figure 2.2, considering price and not branding is the key driver of competition. Today, over 88% of the prescriptions in the US are for generics, as compared to only 19% in 1984.<sup>21</sup> This is a very interesting observation, somewhat contrary to what one may otherwise anticipate - that even in a developed economy like the US, generics play such a key role.

Even though generics play an important role in both India and the US, it is interesting to observe that there is one key difference between the two countries. Indian market is very special as branded generics play a key role in this generics-driven market. Firms sell drugs that have the same molecular composition but different brand names. Leaving consumer perception and brand differentiation aside, these different brands have the same chemical

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<sup>16</sup> Sanchit Srivastava and Shubhashish Chaudhri, *A Bitter Pill to Swallow – Analyzing Anti-trust Concerns in the Indian Pharmaceutical Sector*, pp. 32-33.

<sup>17</sup> India Brand Equity Foundation, *Report on Indian Pharmaceutical Industry*, prepared by Aranca, <<https://www.ibef.org/industry/pharmaceutical-india.aspx>> accessed 23 Nov 2018.

<sup>18</sup> *Ibid.*

<sup>19</sup> *Ibid.*

<sup>20</sup> *Ibid.*, p. 15.

<sup>21</sup> Joanna Shepherd, *Consolidation and Innovation in the Pharmaceuticals Industry: Role of Innovation in the Current Innovation Ecosystem*, 20 *Journal of Healthcare Law and Policy* (2017), p. 5.

properties and therapeutic effects as they are based on the same molecule and therefore, can be considered as substitutes for one another. The All India Organization for Chemists and Druggists (AIOCD) accordingly classifies the pharmaceutical products on the basis of the therapeutic area, super, group and at the molecular level. In the US, however, the generics competition is completely price-driven and in that respect the battle for prices is a race to the bottom. Thus, using branding and influencing customer perception, the generics in India have tried to differentiate and distinctly position their brands (figure 2.1), based on the fundamental 4Ps of Marketing<sup>22</sup> – product, price, place and promotion. Unlike in the developed world, following patent expiration where there is ‘no protection against the switch to generics’<sup>23</sup>, in the Indian generics-led pharma sector – branding is a key strategy to differentiate from other drugs that are essentially based on the same molecular formulation. In addition, it may be useful to add that branding in the pharma sector, may take place at two levels – at the product level or the company level.

In India, branding at both these levels may be observed – at the product-level, prominent examples include ‘Digene’, a commonly used anta-acid for indigestion, stomach upset and heartburn and at the company-level, ‘Himalaya’ is a well-recognised brand name that offers Ayurvedic<sup>24</sup> products created from years of R&D efforts. At the company level, prior to the FDA investigation and the acquisition of Ranbaxy by Sun, Ranbaxy, India’s oldest generic company, was the most well-recognized and respected pharma brand in the country.<sup>25</sup> Roche and Novartis are some prominent examples that have established themselves as company-level brand names in specific therapeutic

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<sup>22</sup> Philip Kotler and Gary Armstrong, *Principles of Marketing* (Prentice Hall, 8<sup>th</sup> ed, 1999) at p. 44.

<sup>23</sup> Janice MacLennan, *Brand Planning for the Pharmaceutical Industry* (Gower Publishing, 1<sup>st</sup> ed, 2004), p. 3.

<sup>24</sup> Ayurveda is an old traditional system of Indian medication. Unlike the present-day pharmaceuticals industry where drug approvals are based on clinical trials and regulatory approvals, ‘Ayurveda’ is based on the principles mentioned in *Sushruta Samhita* that were taught by *Bhagwan Dhanvantari*, the Hindu god of Ayurveda to a group of physicians, including Sushruta, the author of *Sushruta Samhita*. See generally WHO Traditional Medicine Strategy 2014-2023; Ayurveda, Oxford University Press; Michael Alexander Populorum, Trends und Beschäftigungsfelder im Gesundheits- und Wellness-Tourismus: Berufsentwicklung, Kompetenzprofile und Qualifizierungsbedarf in wellness-bezogenen Freizeit- und Gesundheitsberufen, *LIT Verlag Münster* (2008).

<sup>25</sup> Arpita Mehrotra and Arun Aditya Sahay, Sun Pharma acquires Ranbaxy: The Postmerger Blues, *Conference Paper* (December 2016) <<https://www.researchgate.net/publication/311544172>> p. 11.

areas (figure 2.3). In addition to sales & marketing, concentrated R&D efforts and M&A have been strategically employed to concentrate on specific therapeutic areas. Table 1 (below) highlights the price premium paid (in the Indian currency Rupees, ₹) by an average Indian consumer for purchasing generic and its branded equivalent.

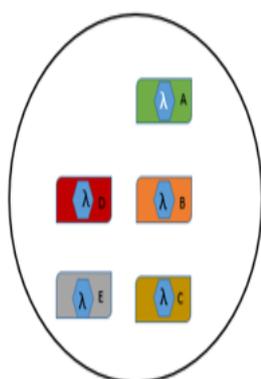


Figure 2.1 Relevant Product Market for Branded Generics (with same molecular formulation)

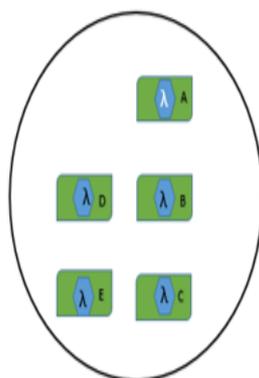


Figure 2.2 Relevant Product Market for Generics (with same molecular formulation)

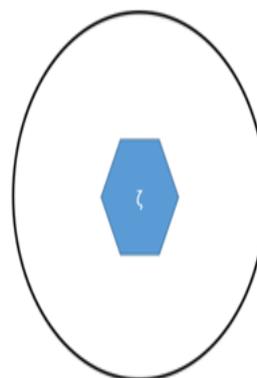


Figure 2.3 Relevant Product Market for Originator

(as on December, 2010)

Used as	Generic drug	Price	Branded Drug	Price
Painkiller	Paracetamol	Rs 2.45	Crocin	Rs 11.00
			Calpol	Rs 10.70
	Paracetamol syrup	Rs 9.00	Crocin (syrup)	Rs 15.00
			Febrex	Rs 20.50
Antibiotic	Diclofenac sodium + paracetamol	Rs 4.40	Diclogesic	Rs 19.40
			Amoxicilin	Rs 13.20
	Azithromycin	Rs 41.80	Remox	Rs 38.70
			Azee	Rs 107.00
Anti-TB	Ethambutol	Rs 14.80	Azithral	Rs 128.55
			Myambutol	Rs 15.30
			Folic acid	Rs 2.80
Vitamins	B-complex	Rs 1.80	Folvite	Rs 11.80
			Becosul	Rs 11.00
Cardiovascular (Blood Pressure) drug	Atenolol	Rs 7.00	Aten	Rs 23.80

**Table 1: Price Difference between Branded Generics and the Generic Drug in India<sup>26</sup>**

<sup>26</sup> Department Related Parliamentary Standing Committee on Commerce, One Hundred and Tenth Report on FDI in Pharmaceutical Sector, *Parliament of India Rajya Sabha* (August 2013), p. 3.

### 3. Competition and Innovation

Market for generics is volume-driven as distinguished from new molecular entities (NMEs) that are value driven. The different competitive dynamics are on account of different cost structures for originators and generics. Whereas it costs an average \$2.6 billion to successfully launch an NME, following patent expiry, launch of a generic's equivalent costs only \$1 to 2 million.<sup>27</sup> In addition, there is an average time lag from discovery to successful launch of an NME.<sup>28</sup> Comparative time lag for generics is much shorter, on average between one to three years. Whereas the originators usually concentrate on product innovation – through introduction of innovative products or substantially improve the quality of existing products; generics focus on cost-reducing innovation.<sup>29</sup>

Indian pharma industry's focus on cost-reducing innovation in that respect is a direct result of the policy objective and the pre-2005 Patents Act that allowed only process patents. One of the key reasons to offer patent protection is that the innovators successfully introduce their innovation and following patent expiry the results of the innovation are available at affordable rates. Viewed from that perspective, dynamic competition too in the long run promotes price and quantity-led competition.<sup>30</sup> Competition amongst generics ensures that benefits of the innovation, once they are off-patent or reverse-engineered (as was the case with the erstwhile patent regime), are effectively delivered to the end consumer at affordable rates. In the context of merger control, preserving a certain number of competitors, therefore, plays a key role in promoting price-led and quantity-led competition. Manufacturers that are in advanced stage of developing a generic equivalent and have received the relevant regulatory approval are actual potential competitors, as distinguished from perceived potential competitors. In case of mergers between generics, both the Indian CCI and the US FTC have attached great

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<sup>27</sup> These are the average prices for the US. In India, considering the less onerous regulatory approval, launch of a generic cost a fraction of the value in the US. Figures taken from Joanna Shepherd, Consolidation and Innovation in the Pharmaceuticals Industry: Role of Innovation in the Current Innovation Ecosystem, 20 *Journal of Healthcare Law and Policy* (2017) p. 5.

<sup>28</sup> Patricia M. Danzon, Competition and Antitrust Issues in the Pharmaceutical Industry (Final Report July 2014) *The Wharton School, University of Pennsylvania*, p. 4.

<sup>29</sup> Giulio Federico, Gregor Langus and Tommaso Valletti, Horizontal Mergers and Product Innovation (February 18), *European Commission*, p. 2.

<sup>30</sup> Payal Malik, Competition Law in India: Developing Efficient Markets for Greater Good, *Vikalpa* 42(2) (April-June 2016), pp. 175- 181.

value to these actual potential competitors and cleared mergers following submission of remedies that ensured successful entry of these players who enjoyed an ‘entry advantage’ over the other players in the industry.<sup>31</sup>

#### **4. Pharma mergers**

In merger control, the first question that competition authorities need ask themselves is the reason that makes the two companies take a decision to come together. Just as it is important for businesses to understand the principles of competition law and policy to make better strategic decisions; an understanding of the rationale for particular business decisions by the business community better equips the competition authorities to take decisions that foster competition in innovation. In case of a merger, relevant questions touching upon the strategy of an enterprise include - are there potential efficiencies that can in turn lower the costs and hence, increase static and dynamic efficiencies or do the parties compete closely in a given competition space (localized competition space) and thus, the merger will lessen the competitive constraint in the relevant market. Based on this proposed approach, in this section we first discuss the strategic rationale for the merger between Sun Pharma and Ranbaxy (section 4.1), followed by a discussion on CCI’s (section 4.2) and FTC’s (section 4.3) assessment of the relevant markets and the theories of harm.

##### **4.1 Strategic Rationale for Sun Pharma/Ranbaxy Merger**

2014/2015 was a peak year for M&A activity in the pharma industry – both for the big pharma as well as for the generic manufacturers.<sup>32</sup> Patent cliff and a weak R&D product pipeline prompted the big pharma to consolidate and seek alternative avenues of growth.<sup>33</sup> The generics market – both in the US and in India, is highly competitive with many significant market players. In the US, there are over 100 generic players that constantly fight for the market share in the world’s largest pharma market, that accounts for half of global

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<sup>31</sup> Joseph F. Brodley, Potential Competition Mergers: A Structural Synthesis, 87 *Yale Law Journal* 1 (1977), pp. 11-12; Joseph F. Brodley, Potential Competition Doctrine, 71 *California Law Review* 2 (1983), pp. 372, 378.

<sup>32</sup> Marc-André Gagnon and Karna D. Volesky, *Globalization and Health* (2017) 13: 62 <<https://globalizationandhealth.biomedcentral.com/articles/10.1186/s12992-017-0285-x>> accessed 23 Nov 2018.

<sup>33</sup> Patricia Danzon, Mergers and Acquisitions in the Pharmaceutical and Biotech Industries, 28 *Managerial and Decision Economics*.

sales.<sup>34</sup> In the US, between 2017 and 2019 alone, drugs worth US\$ 55 billion are expected to go off patent.<sup>35</sup> Despite these opportunities, the US generics market remains highly competitive, as the manufacturers have to negotiate prices with the wholesalers, retailers and insurers. Substantial bargaining power of these three groups implies that there is an overall downward pressure on the prices of the generics. This has in turn led to significant consolidation in the US generics market and it is expected that from some 100+ generics today, there may finally emerge 10-20 generics companies by 2020.<sup>36</sup>

In addition to this strategic rationale, other commonly identified reasons why generic firms engage in M&A include: 1. substantial economies of scale on account of administrative and capital cost savings; 2. patent cliff in the pharma sector - this offers generics increased opportunities to enter new product markets; 3. vertical integration as a strategy to buy parts of the supply chain and 4. the emergence of biosimilars.<sup>37</sup> In addition, M&As have also been used to ‘corner niche segments’ in the generics market and substantially increase prices of certain drugs.<sup>38</sup> Examples include, substantial price increase in the market for generics like dextroamphetamine used for treatment of attention deficit disorder and nitroprusside used for treatment of high blood pressure in the US.<sup>39</sup> In India, following Piramal Healthcare’s acquisition by Abbott Laboratories, the prices of Gardenal 60 mg tablets<sup>40</sup> increased from ₹

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<sup>34</sup> Robert Wessman, CEO and founder Alvogen, Alvogen Founder: Generic Drug Prices will Drive Consolidation, (Online, 7 December 2017) *World Finance* <<https://www.worldfinance.com/videos/alvogen-founder-generic-drug-price-wars-will-drive-consolidation>> accessed 23 Nov 2018.

<sup>35</sup> India Brand Equity Foundation, Report on Indian Pharmaceutical Industry, prepared by Aranca <<https://www.ibef.org/industry/pharmaceutical-india.aspx>> accessed 7 May 2018.

<sup>36</sup> Robert Wessman, CEO and founder Alvogen, Alvogen Founder: Generic Drug Prices will Drive Consolidation, (Online 7 December 2017) *World Finance* <<https://www.worldfinance.com/videos/alvogen-founder-generic-drug-price-wars-will-drive-consolidation>> accessed 7 May 2018; Jennifer Barrett, Generic Drug Companies Seek Consolidation Amid Pricing Pressures, *Pharmacy Times* (Online, 19 January 2017) <<http://www.pharmacytimes.com/publications/issue/2017/january2017/generic-drug-companies-seek-consolidation-amid-pricing-pressures>> accessed 23 Nov 2018.

Marc-André Gagnon and Karena D. Volesky, *Globalization and Health* (2017) 13: 62 <<https://globalizationandhealth.biomedcentral.com/articles/10.1186/s12992-017-0285-x>> accessed 23 Nov 2018.

<sup>38</sup> *Ibid.*

<sup>39</sup> *Ibid.*; JA Greene, G Anderson and JM Sharstein, *Role of the FDA in affordability of off patent pharmaceuticals*; JD Alpern, WM Stauffer and AS Kesselheim, *High Cost Generic Drugs: Implications for Patients and Policymakers* (2014)

<sup>40</sup> Gardenal 60 mg is used for the treatment of Epilepsy.

16 in May 2009 to about ₹ 35.36 in May 2011, indicating a post-merger 121% increase in prices. Likewise, the Haemaccel Injection 300 ml increased from ₹ 99.02 to ₹ 215 that is a 117% price increase during the same time period.<sup>41</sup>

Indian generics supply over 40% of the generics and over the counter medicines in the US. Even at the time the US Food and Drug Administration (FDA) banned imports from Ranbaxy's four production facilities in India<sup>42</sup> on account of the company's failure to meet the current Good Manufacturing Practice (cGMP) requirements, Ranbaxy sold generics worth US \$ 1 billion in that year alone in the US.<sup>43</sup>

In 2014, Sun Pharma purchased Ranbaxy from its parent company Japan's Daiichi Sankyo for \$4 billion, making it India's top and world's top 10 pharma M&A deal for the year 2014.<sup>44</sup> Sun's decision to buy Ranbaxy from its owners Daiichi Sankyo was considered a major surprise by many industry analysts. With this deal, Sun expected to get a foothold in the Japanese market. Second, considering Ranbaxy's brand equity in the Indian market and its strong foothold in the US market, where it owned a very large portfolio of ANDAs and first-to-file opportunities were identified as important sources of shareholder value creation by Dilip Shanghvi, the founder and Chief Executive Officer (CEO) of Sun.

The merger also offered Sun Pharma, a more global footprint - additional operations in 65 countries, 47 manufacturing facilities across 5 continents - including access to emerging markets like Russia, Romania, Brazil, Malaysia and South Africa on one hand, and the ownership of Ranbaxy B.V.,

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<sup>41</sup> Latha Jishnu, Curing the ills of Pharma FDI (Online 15 August 2012) *Down to Earth* <<http://www.downtoearth.org.in/news/curing-the-ills-of-pharma-fdi-38787>> accessed 23 Nov 2018.

<sup>42</sup> These included Ranbaxy's plants at Toansa, Paonta Sahib, Dewas and Mohali in India.

<sup>43</sup> Jennifer Thompson and Andrew Ward, Ranbaxy shares sink on US FDA product ban, *Financial Times* (Online 24 January 2014) <<https://www.ft.com/content/bb89aa0e-84c5-11e3-a793-00144feab7de>> accessed 7 May 2018; U.S. Food & Drug Administration, Questions and Answers on Drugs Manufactured at the Dewas and Paonta Sahib Facilities of Ranbaxy Laboratories Ltd. <<https://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/EnforcementActivitiesbyFDA/ucm118442.htm>> accessed 23 Nov 2018.

<sup>44</sup> EJ Lane, Ranbaxy-Sun U.S. approval hinges on selling antibacterial drug as FTC notes reach of Indian generic unit *Fierce Pharma* (Online 2015) <<https://www.fiercepharma.com/sales-and-marketing/ranbaxy-sun-u-s-approval-hinges-on-selling-antibacterial-drug-as-ftc-notes>> accessed 23 Nov 2018.

Netherlands, the Dutch subsidiary of Ranbaxy on the other.<sup>45</sup> Moreover, the merger was an all-stock deal, wherein the Ranbaxy shareholders received eight shares of Sun pharma for every 10 shares of Ranbaxy that they held.<sup>46</sup> Daiichi also indemnified Sun of any further FDA investigation relating to the above mentioned sites. Ranbaxy had earlier settled for US\$500 million the FDA investigation on these sites. Overall, this implied that Daiichi continued to share the risks (or benefits) of a successful post-merger integration. Sun Pharma/ Ranbaxy was reviewed and conditionally cleared by both the Indian CCI and the US FTC as we discuss next.

#### 4.2 Competition Commission of India on Sun Pharma/Ranbaxy

In Sun Pharma/ Ranbaxy, the CCI defined the relevant product market at the molecular level that is medicines/ formulations that were based on the same API were identified as distinct relevant product markets.<sup>47</sup> The CCI assessed forty-nine relevant markets for generics and two relevant markets for formulations.<sup>48</sup> Out of these forty-nine markets, the CCI did not identify any competition concerns in 38 relevant markets (78% of the relevant product markets studied by the CCI) and another four molecules (8% of the relevant product market studied) were covered in the National List of Essential Medicines (NLEM) and were thus, subject to price control by the NPPA.<sup>49</sup> Competition concerns were identified in the remaining seven that is 14% of the markets studied (Graph 1).

It may be useful to highlight the important reasons that led to CCI's assessment that 38 markets (that is over 78% of the markets) did not lead to any competition concerns. In many of these markets, even though the merged entity's market shares were between 40-55%, presence of three, four and in

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<sup>45</sup> Arpita Mehrotra and Arun Aditya Sahay, Sun Pharma acquires Ranbaxy: The Postmerger Blues, *Conference Paper* (December 2016) <<https://www.researchgate.net/publication/311544172>> pp. 7, 9; Jyoti Kumari, Role of CCI in Merger Control in Indian Pharma Industry, <<https://indianbarassociation.org/wp-content/uploads/2013/02/Role-of-CCI-in-merger-control-in-india-pharma-industry.pdf>> accessed 23 Nov 2018, pp. 1-2.

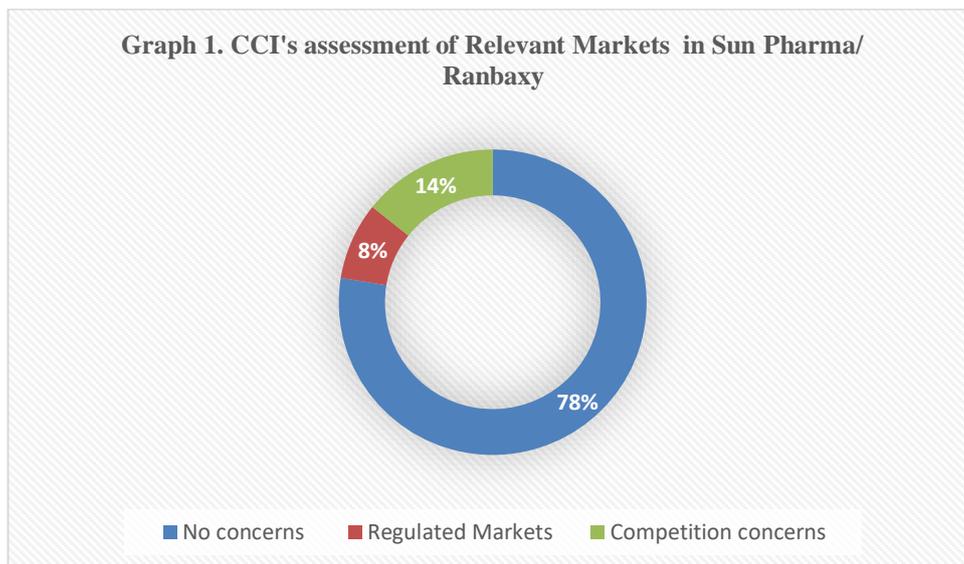
<sup>46</sup> Knowledge Wharton, India's Sun Pharma Takes over a beleaguered Ranbaxy Labs (11 April 2014) *Wharton Business* <<http://knowledge.wharton.upenn.edu/article/indias-sun-pharma-takes-beleaguered-ranbaxy-labs/>> accessed 23 Nov 2018.

<sup>47</sup> Combination Registration No. C-2014/05/170 *Sun Pharmaceuticals Industries Limited/ Ranbaxy Laboratories Limited*, Order under Section 31(7) of the Competition Act, 2002, paras 13-15.

<sup>48</sup> *Ibid.*, paras 19-20.

<sup>49</sup> *Ibid.*, paras 23-24.

some cases even five other significant players, meant that these other generics' manufacturers would continue to exercise an important competitive constraint on the merged entity. Moreover, in none of these markets - either Sun Pharma or Ranbaxy was a lead player.<sup>50</sup>



The Commission also assessed the impact of the merger on potential competition. Ranbaxy at the time had two pipeline products with the formulation Sitagliptin, classified under the therapeutic category 'Oral Anti-diabetics'. Sun pharma already sold formulations containing Sitagliptin under the brand name 'Istavel' and 'Istamet' that it licensed from the patent owner MSD. Apart from these two, Glenmark was the only other active player in this product market. The Commission assessed the impact of the merger on the incentives of Ranbaxy to launch the pipeline product.<sup>51</sup> The patent was licensed by MSD was under judicial review, the CCI expected that in case the courts found that the patent was invalid, there may be significant market entry by other players to launch a generic version of the molecule.<sup>52</sup>

The Commission's decision though lamentably did not discuss the counter-factual that is what would happen in case the patent was found valid and the courts allowed MSD's request for injunction against the infringing parties. In such a scenario, Glenmark and the merged entity would have been left as the only two active manufacturers in the relevant product market. This in turn

<sup>50</sup> *Ibid.*, para 24.

<sup>51</sup> *Ibid.*, paras 25.

<sup>52</sup> *Ibid.*, paras 26.

might have led to identification of competition concerns in this market as well and possibly, it would have also required a remedy to alleviate the resulting anti-competitive effects.

Merger was likely to result in appreciable adverse effect on competition (AAEC) in the seven relevant product markets identified in Table 2. As discussed in section 2 above, the competition in generics in India is based on different brands available for the same molecule. The CCI accordingly identified the brands offered by Sun Pharma and Ranbaxy for each one of these molecules.

S. No	Relevant Market	Brand owned/ in-licensed/ distributed by Sun Pharma	Brand owned/ in-licensed/ distributed by Ranbaxy
1	Tamsulosin + Tolterodine	Tamlet	Roliflo
2	Rosuvastatin + Ezetimibe	Razavel EZ	Rosuvas EZ
3	Leuprorelin	Lupride	Eligard
4	Terlipressin	Terlyz	Terlibax
5	Olanzapine + Fluoxetine	Oleanz Plus	Olanex F
6	Levosulpiride + Esomeprazole	Sompraz L	Raciper L
7	Olmersartan + Amlodipine + Hydrochlorothiazide	Triolmezest	Triolvance

**Table 2: Relevant Markets with competition concerns and brand names<sup>53</sup>**

### 4.3 FTC on Sun Pharma/ Ranbaxy

In the US, the FTC was of the opinion that the merger would violate section 7 of the Clayton Act and section 5 of the FTC Act as the merger led to increase in concentration in the relevant market for “development, license, manufacture, marketing, distribution, and sale of generic minocycline

<sup>53</sup> CCI decision in Sun Pharma/ Ranbaxy, p. 29.

hydrochloride 50 mg, 75 mg, and 100 mg tablets” (minocycline tablets<sup>54</sup>) in the United States.<sup>55</sup> In the US, at the time of the merger, there were only three manufacturers of minocycline – Ranbaxy, Dr Reddy’s Laboratories and Par Pharmaceuticals.<sup>56</sup> Sun was one of the potential competitors as it had a product under development and an ANDA application under review.<sup>57</sup> Considering that entry in the generics market, was subject to the development of a bioequivalent drug and ANDA approval by the FDA, the FTC was of the opinion, that entry with the meaning of paragraph 6 and 7 of the US Horizontal Merger Guidelines 2010 was unlikely to be ‘timely, likely or sufficient’ to counteract the anti-competitive effects of the transactions. The merger thus, led to ‘elimination of future competition’.<sup>58</sup>

## 5. Design of remedies

### 5.1 CCI in Sun/Ranbaxy Merger

To alleviate the likely AAEC, the CCI proposed to the parties, divestment of the brands highlighted in yellow in Table 3 below.<sup>59</sup>

S. No	Relevant Market	Brand owned/ in-licensed/ distributed by Sun Pharma	Brand owned/ in-licensed/ distributed by Ranbaxy
1	Tamsulosin + Tolterodine	Tamlet	Roliflo
2	Rosuvastatin + Ezetimibe	Razavel EZ	Rosuvas EZ
3	Leuprorelin	Lupride	Eligard
4	Terlipressin	Terlyz	Terlibax
5	Olanzapine + Fluoxetine	Oleanz Plus	Olanex F

<sup>54</sup> Minocycline tablets are used for the treatment of bacterial infection, including pneumonia, respiratory, genital and urinary tract infections, acne and other skin infections.

<sup>55</sup> In the Matter of Sun Pharmaceuticals, Ranbaxy Laboratories and Daiichi Sankyo Ltd., Complaint, Docket No. C-4506, pp. 1-3.

<sup>56</sup> *Ibid.*, p. 3.

<sup>57</sup> *Ibid.*

<sup>58</sup> *Ibid.*

<sup>59</sup> Combination Registration No. C-2014/05/170 *Sun Pharmaceuticals Industries Limited/ Ranbaxy Laboratories Limited*, Order under Section 31(7) of the Competition Act, 2002, paras 32-33.

6	Levosulpiride + Esomeprazole	Sompraz L	Raciper L
7	Olmersartan + Amlodipine + Hydrochlorothiazide	Triolmezest	Triolvance

In response to CCI's proposed divestiture, the parties requested that as regards the relevant market for Leuprorelin, the Commission may instead consider the divestiture of Ranbaxy's Eligard instead of Sun Pharma's Lupride.<sup>60</sup> This was accepted by the CCI as this divestiture was relatively easier as well as effective to eliminate the likely AAEC considering that Ranbaxy had only distribution rights from another pharma market as regards Eligard.<sup>61</sup> In addition, in case the parties failed to divest the distribution rights within the first divestiture period, they offered to divest Sun Pharma's Lupride brand.<sup>62</sup> (see Table 4 below)

S. No	Relevant Market	Brand owned/ in-licensed/ in-distributed by Sun Pharma	Brand owned/ in-licensed/ distributed by Ranbaxy
1	Tamsulosin + Tolterodine	Tamlet	Roliflo
2	Rosuvastatin + Ezetimibe	Razavel EZ	Rosuvas EZ
3	Leuprorelin	Lupride	Eligard
4	Terlipressin	Terlyz	Terlibax
5	Olanzapine + Fluoxetine	Oleanz Plus	Olanex F
6	Levosulpiride + Esomeprazole	Sompraz L	Raciper L
7	Olmersartan + Amlodipine + Hydrochlorothiazide	Triolmezest	Triolvance

**Table 4: Divestiture commitments by Sun Pharma/ Ranbaxy (the parties proposed the divestiture of brands highlighted in yellow this table. Brand Lupride highlighted in green was a proposed crown jewel divestment.)**

<sup>60</sup> *Ibid.*, para 34.

<sup>61</sup> *Ibid.*, para 35.

<sup>62</sup> *Ibid.*, para 35.

The divestiture was to be executed as an asset sale transaction and completed within the first divestiture period that was six months following the Commission's approval.<sup>63</sup> To ensure the "economic viability, marketability and competitiveness of the Divestment Products"<sup>64</sup>, the parties were required to use their best efforts to preserve the viability of the business. This included appointment of a senior management level employee (a Hold Separate Manager) who was to work in close relationship and report on a periodic basis to the Monitoring Agency.<sup>65</sup> The parties were expected to offer sufficient information to the potential purchaser to help them undertake reasonable due diligence as regards the divested products.<sup>66</sup> The final sale and purchase agreement (SPA) and the purchaser were both subject to the approval of the CCI.<sup>67</sup>

Purchaser was expected to be independent of the Parties; have "financial resources, proven expertise, manufacturing capability or ability to outsource manufacturing and incentives to maintain and develop" the product; active in the sales and marketing of pharma products in India; able to obtain the required regulatory approvals from relevant regulatory authorities and not create any additional competition concerns.<sup>68</sup> The parties were to appoint a Monitoring Agency that would oversee the on-going management of the Divestment Business, review and assess potential purchasers and submit to the Commission on a periodic basis a written report about the operation and management and the progress of sale of the Divestment business.<sup>69</sup> This was expected to help the Agency effectively perform the responsibilities delegated to it by the CCI under the Agency Mandate. In case the Parties failed to divest the proposed assets within a period of six months, the Commission was to appoint a Divestiture Agency to effect the sale of Alternate Divestment Product during the second divestiture period (a period of four months) at no minimum price to a Commission approved purchaser.<sup>70</sup> Though 'not' specifically mentioned in the CCI's decision, the latter provision may be seen as the equivalent of a crown jewel provision. A crown jewel provision is an

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<sup>63</sup> *Ibid.*, para 44.

<sup>64</sup> *Ibid.*, para 48.

<sup>65</sup> *Ibid.*, paras 49-51.

<sup>66</sup> *Ibid.*, para 52.

<sup>67</sup> *Ibid.*, paras 55-56.

<sup>68</sup> *Ibid.*, para 55.

<sup>69</sup> *Ibid.*, para 63.

<sup>70</sup> *Ibid.*, paras 69-72.

alternative divestiture proposal that the merging parties offer to divest in case they fail to divest the initially identified assets within the first divestiture period.<sup>71</sup>

## 5.2 FTC in Sun Pharma/Ranbaxy

To alleviate FTC's competition concerns in Sun Pharma/Ranbaxy, the parties offered to divest within ten days of consummation of the acquisition, all the Minocycline product assets and licenses (that included ANDA applications) to Torrent Pharma.<sup>72</sup> If for some unforeseen reason this divestiture was not approved by the FTC, the parties offered to divest 'in good faith and at no minimum price' to a Commission approved-buyer all the Minocycline product assets and licenses within 180 days of the merger.<sup>73</sup> To protect the confidentiality of the Business Information, the employees that have had responsibilities relating to the Monocycline Products, were to enter into a 'confidentiality agreement' that required continued confidentiality and non-disclosure of the business information to the personnel of the merged entity.<sup>74</sup> In addition, the merged entity undertook an 'Employee Non-Solicitation Clause' according to which Minocycline core product employees that were to be retained or hired by the Acquirer of the Divested Business could not be solicited by the merged entity. The employees were however, not subject to any conditions and thus, they could apply to the merged entity for employment.<sup>75</sup>

The merged entity also offered to undertake all reasonable efforts to 'preserve the marketability, viability and competitiveness of the Minocycline Products'.<sup>76</sup> Unlike, the CCI decision, however, the FTC did not appoint a monitoring trustee. Instead, the FTC reserved the right to appoint a monitor (Interim Monitor), whose selection was subject to the 'consent of Respondents'.<sup>77</sup> In addition, another noteworthy difference between the CCI's and the FTC's decision was that the latter also insulated the Acquirer from

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<sup>71</sup> Federal Trade Commission, Frequently Asked Questions about Merger Consent Order Provisions, 24, 25 <<https://www.ftc.gov/tips-advice/competition-guidance/guide-antitrust-laws/mergers/merger-faq>> accessed 23 Nov 2018.

<sup>72</sup> In the Matter of Sun Pharmaceuticals, Ranbaxy Laboratories and Daiichi Sankyo Ltd., Decision and Order, Docket No. C-4506, p. 19.

<sup>73</sup> *Ibid.*

<sup>74</sup> *Ibid.*, pp. 23-24.

<sup>75</sup> *Ibid.*, pp. 24-25.

<sup>76</sup> *Ibid.*, p. 25.

<sup>77</sup> *Ibid.*, p.28.

patent-related disputes as regards the acquired products that could adversely impact the R&D efforts or sale, import, export or distribution of Minocycline Products in the US.<sup>78</sup>

## 6. Other Pharma mergers

This section discusses Orchid/Hospira, Mylan/Agila and Torrent/Elder – three conditional clearance decisions of the CCI subject to non-structural remedies. Orchid/Hospira, was a merger between Orchid Chemicals and Pharmaceuticals Limited (OCPL) and Hospira Healthcare India Private Limited (HHIPL), a 100% subsidiary of Hospira Inc, USA. It was a case of vertical transaction, as the OCPL's business transferred comprising of its Betalactum (Penems including Carbapenems and Penicillins) API business and associated R&D facilities was an important input for HHIPL's injectable formulations.<sup>79</sup> The business under consideration were largely concentrated on exports with negligible presence in the domestic markets. To receive the CCI's clearance, the parties offered the following commitments – first, the non-compete clause in the business transfer agreement (BTA) as regards the Indian domestic market was reduced to four years and second, the BTA was amended to allow R&D in new Penem (including Carbapenem) and Penicilin APIs for injectable formulations.

In Mylan/ Agila, Mylan, a generics company incorporated in Pennsylvania, USA acquired Agila, a wholly owned subsidiary (WOS) of Strides Acrolab Ltd.<sup>80</sup> Both the target enterprise and the acquirer had limited domestic presence in India.<sup>81</sup> The Commission was concerned with the Restrictive Covenant Agreement (RCA) that prohibited the promoters of acquired company from engaging in or economically investing in injectable, parenteral, ophthalmic or oncology pharma products at any level along the value chain, anywhere in the world. To receive CCI's conditional approval, the parties offered the following commitments – first, limiting the duration of the NCAs as regards Indian market to only four years; second, restricting the scope of NCAs to only the products manufactured or pipeline products and

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<sup>78</sup> *Ibid.*, pp. 26-27.

<sup>79</sup> Competition Commission of India, Orchid/Hospira, dt. 21 December 2012, paras 1,5,8.

<sup>80</sup> Combination Registration No. C-2013/04/116 dt 20 June 2013, paras 1-10.

<sup>81</sup> *Ibid.*, para 14.

third, allowing the promoters of Agila to engage in R&D for developing new injectable formulations that were at the time non-existent.<sup>82</sup>

In Torrent/Elder, Torrent acquired Elder's certain branded domestic formulations business in India and Nepal.<sup>83</sup> In addition, the parties also entered into a Manufacturing and Supply Agreement (MSA) according to which Elder offered to manufacture for a period of three years certain products exclusively for Torrent.<sup>84</sup> Parties' rationale for the transaction was that it allowed Torrent to strengthen and expand its product portfolio in its core therapeutic areas, as well as enter into new therapeutic categories.<sup>85</sup> The merger led to horizontal overlap in over sixteen therapeutic categories, out of which the combined market share of the parties exceeded 10 per cent in the following four product markets – Calcium + Vitamin D3; Calcium + Calcitriol; Platelet Aggregation Inhibitors and Combination of Two Diuretics.<sup>86</sup>

However, the concentration did not lead to any AAEC on account of horizontal concerns – first, as the merger specific increase in concentration was only nominal – meaning that increase in market share was on account of only one of the parties' market share, wherein the other had an insignificant contribution and second, price of the medicines under consideration were subject to the regulation of NPPA.<sup>87</sup> Competition concerns were identified on account of 'non-compete agreement' (NCA) between the parties.<sup>88</sup> To alleviate CCI's competition concerns, the parties deleted over 11 therapeutic areas in the Promoter NCA and the Semit NCA; created a 'carve-out' of 36 existing products of Elder from the scope of NCAs – this allowed Elder to continue manufacturing, market, distribute and sell these products. Second, the acquirer reduced the duration of NCAs for Primary Therapeutic Areas from five to four years in the Promoter NCA and Semit NCA. Finally, certain provisions of the Promoter NCA and Semit NCA that were likely to adversely impact competition were deleted.<sup>89</sup>

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<sup>82</sup> *Ibid.*, para 21.

<sup>83</sup> Torrent/Elder, C-2014/01/148, para 6.

<sup>84</sup> *Ibid.*

<sup>85</sup> *Ibid.*, para 7.

<sup>86</sup> *Ibid.*, paras 9-10.

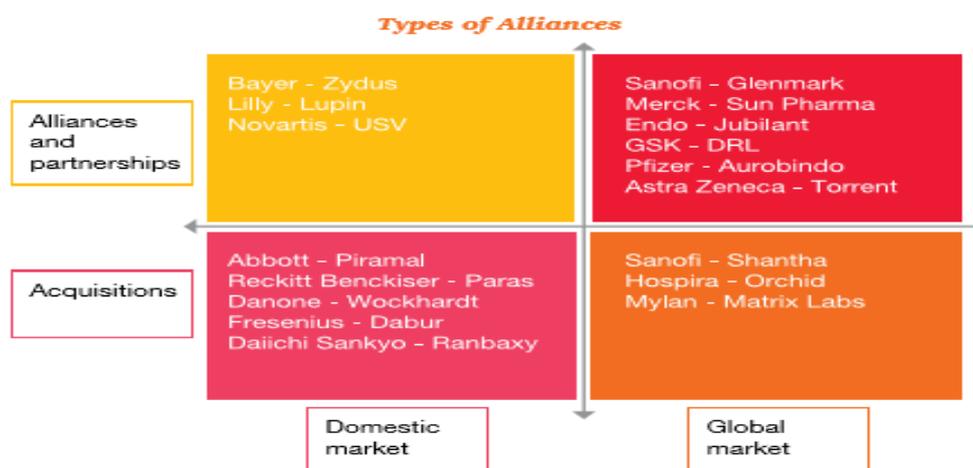
<sup>87</sup> Torrent/Elder, C-2014/01/148, para 11-13.

<sup>88</sup> Torrent/Elder, C-2014/01/148, para 15-16.

<sup>89</sup> Torrent/Elder, C-2014/01/148, para 17.

## 6. Summary and Conclusions

Following opening of the Indian pharma sector to 100 % Foreign Direct Investment (FDIs) through automatic route starting 2011 on one hand, and worldwide a largely number of blockbusters going off-patent on the other, pharma has experienced significant consolidation in the last few years. (See Figure 3) In India, some important mergers amongst these were also subject to the review of the CCI.



**Figure 3 Alliances and Partnerships in the Indian Pharma<sup>90</sup>**

It may be useful to observe here that even though Sun Pharma/ Ranbaxy is widely recognized as the first clearance decision that was subject to structural commitments; use of the expression ‘carve-out’ in the Torrent/Elder decision (*see* section 6) raises some doubt as to whether the latter may actually be the first structural clearance decision of the CCI.

The remedies in Sun Pharma/ Ranbaxy are well in line with internationally accepted practice of design of remedies in merger control. It may be useful to highlight some useful similarities and differences though. The ‘principle of proportionality’ is a very important principle in design of remedies. As the objective of merger control law is to preserve pre-merger conditions of competition - the merger control framework and remedies, if any, must respect this principle. In the EU, for instance, Recital 30 of the 2004 Merger

<sup>90</sup> Confederation of Indian Industry and Price Waterhouse Coopers, Indian Pharma Inc.: Enhancing value through Alliances and Partnerships, *Pharma Summit* (2011), p. 9.

Control Regulation states that the commitments proposed should be proportional to the competition concerns identified and must eliminate those concerns in entirety.<sup>91</sup> This self-limit on the exercise of discretion by the competition authority is a result of the ‘principle of legitimate expectations’.<sup>92</sup> In Sun Pharma/ Ranbaxy, the CCI made it sufficiently clear that the objective of the modification to the proposed combination was to “maintain the existing level of competition in the relevant markets in India”.<sup>93</sup>

On the issue of divergences, it may be useful to mention the following noteworthy aspects. First, the CCI clearly specified to the parties the nature of modifications and the assets that it expected them to divest.<sup>94</sup> The CCI was also open to subsequent changes by the Parties, taking into due account the nature of the business.<sup>95</sup> It is a well-established practice that the commitments are proposed by the parties, the competition authority can only accept or reject those commitments.<sup>96</sup> Whereas from a perusal of the CCI’s decisions in Mylan/Agila, Orchid/Hospira and Torrent/Elder, it emerges that the parties proposed the remedies; Sun Pharma/ Ranbaxy indicates that it was the Commission that first suggested the remedies. Clarity as regards proposal, design and nature of remedies accepted by the CCI may be useful to remove this confusion. The CCI can for instance issue guidelines on merger remedies that can be an important guide for businesses seeking inorganic growth through M&As.

As regards the impact of the merger on innovation, it is only three years since Sun Pharma acquired Ranbaxy and in the pharma industry, with large sunk costs and substantial time periods in R&D, it may be a short time frame to assess with confidence the impact of the merger on dynamic competition. It may however be very useful to observe, that by the year 2017, Sun Pharma

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<sup>91</sup> Commission notice on remedies acceptable under Council Regulation (EC) No 139/2004 and under Commission Regulation (EC) No 802/2004 [2008] OJ C 267/01, recital 30.

<sup>92</sup> Ioannis Lianos, ‘Competition Law Remedies in Europe Which Limits for Remedial Discretion?’ (January 2013) CLES Research Paper Series no. 2/2013, p. 52 <[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2235817](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2235817)> accessed 23 Nov 2018.

<sup>93</sup> Combination Registration No. C-2014/05/170 *Sun Pharmaceuticals Industries Limited/ Ranbaxy Laboratories Limited*, Order under Section 31(7) of the Competition Act, 2002, para 39.

<sup>94</sup> *Ibid.*, paras 32, 33.

<sup>95</sup> *Ibid.*, paras 34-36.

<sup>96</sup> Commission notice on remedies acceptable under Council Regulation(EC) No 139/2004 and under Commission Regulation(EC) No 802/2004 [2008] OJ C 267/01.

emerged as the highest spender on R&D in the Indian pharma sector.<sup>97</sup> Following the merger, Sun Pharma's globally dispersed and expanded R&D team offered it enhanced capabilities to concentrate on 'complex products across multiple dosage forms' and invest in speciality pipeline.<sup>98</sup> Post-merger, Sun enjoyed a 16% year on year (YoY) net profit in 2015 and 13% in 2016.<sup>99</sup> This growth was despite the fact that integration of Ranbaxy's 'product portfolio, manufacturing and supply chain' with Sun were identified as some of the key challenges by industry analysts.

From the financial year 2011 to FY 2017, Sun Pharma enjoyed a Compound Annual Growth Rate (CAGR) of 38.3% and invested over 7.6 per cent of its sales totalling US \$ 361 million in R&D for the FY 2017 (Graph 2 *below*). It is true that this may be an insignificant amount when compared to the R&D investments by big pharma, but the investment and the annual increase in it, is nonetheless remarkable considering the focus of the generics sector. Moreover, considering there exists substantial cost differences between bringing a new molecular entity to market (\$ 2.6 billion) as distinguished from launching a generic version of an off-patent drug (\$ 1 to 2 million)<sup>100</sup>, even limited R&D investments by the generics may under certain circumstances offer higher return on investment (ROI).

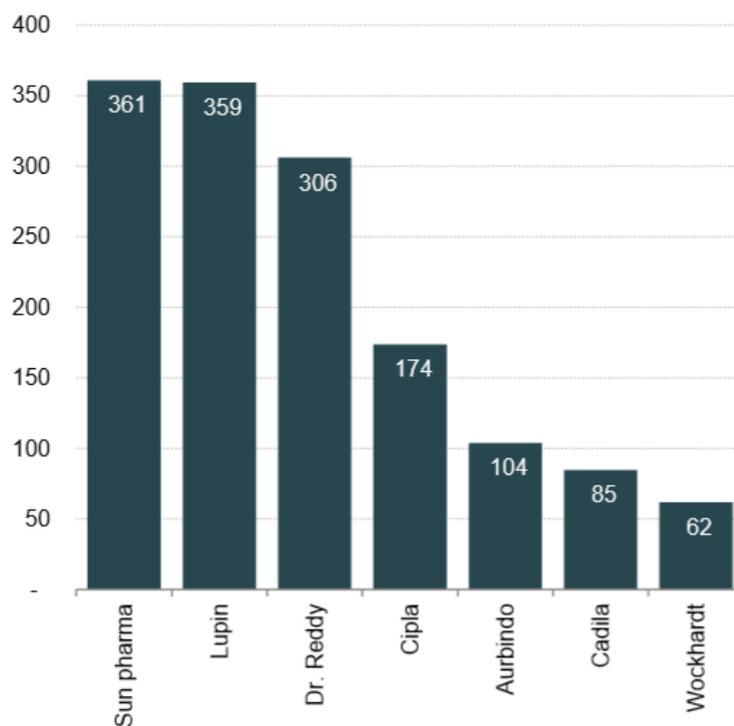
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<sup>97</sup> India Brand Equity Foundation, Report on Indian Pharmaceutical Industry, prepared by Aranca, p. 16 <<https://www.ibef.org/industry/pharmaceutical-india.aspx>> accessed 23 Nov 2018.

<sup>98</sup> *Ibid.*

<sup>99</sup> Arpita Mehrotra and Arun Aditya Sahay, Sun Pharma acquires Ranbaxy: The Postmerger Blues, *Conference Paper* (December 2016) <<https://www.researchgate.net/publication/311544172>> pp. 10-11.

<sup>100</sup> Joanna Shepherd, Consolidation and Innovation in the Pharmaceuticals Industry: Role of Innovation in the Current Innovation Ecosystem, 20 *Journal of Healthcare Law and Policy* (2017) p. 6.



**Graph 2 R&D Spending by top six Indian Pharma companies in FY 2017 (US \$ million)**

The impact of Sun Pharma/ Ranbaxy on innovation though stands in contrast to the impact of Piramal Healthcare/Abbott. In Piramal Healthcare/Abbott, the founders of Piramal Healthcare entered into a non-compete clause and offered not to manufacture and market generics in India or other emerging economies for a period of eight years following the transaction.<sup>101</sup> Piramal sold its generics-drugs unit to Abbott. One of the reasons for Abbott's acquisition of Piramal was that the merger offered Abbott a foothold in the Indian generics market, where over 70% of the market is self-pay.<sup>102</sup> Following the merger, Piramal Healthcare received about \$ 2.12 billion upfront plus \$400 million for the next four years (total approximating about \$ 3.72 billion in total), out of which it channelled over \$277 million to restructure the debts of Piramal Life Science and the parent company proposed to invest further in R&D to concentrate on drug discovery and

<sup>101</sup> Peter Loftus and Rumman Ahmed, Abott Labs to buy Indian Business, *Wall Street Journal* (Online 26 May 2010) <<https://www.wsj.com/articles/SB10001424052748704852004575257614197847830>> accessed 23 Nov 2018.

<sup>102</sup> *Ibid.*

research.<sup>103</sup> It is over seven years since the merger happened, and Piramal does not appear in the list of top seven R&D spenders in the country. It may be useful to mention two factors that distinguish Piramal Healthcare/ Abbott from Sun pharma/ Ranbaxy – first, the merger led to the exit of an important market player in the Indian generics industry and second, the merger was not reviewed by the CCI. It is quite likely that like in the case of Sun Pharma/ Ranbaxy, Piramal/Abbott may have also received Commission’s conditional approval only.

As regards the regulation of the Indian pharma industry, even though the NPPC has played a key role in regulating the prices, a better policy objective may be to ensure that the generics meet the ‘bioequivalence standard’.<sup>104</sup> This will shoot two birds with one arrow. First, the commonly encountered challenge of consumer perception that Indian generics are usually of inferior quality.<sup>105</sup> Second, and related to the first, it will eliminate the rationale for brand-led competition in India.<sup>106</sup> This in turn will prompt a race to bottom for the prices, as is the case in the other mature markets like the EU and the US. Moreover, considering that the Indian market has some 1000+ players, a price-led market may emerge as one of the most competitive in the world. It is also possible that this in turn may promote dynamic competition. As branding will no longer be a differentiating factor, the Indian pharma, like the big pharma may be motivated to differentiate itself on the basis of R&D, new product launches and innovation capabilities.

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<sup>103</sup> *Ibid.*

<sup>104</sup> Patricia M. Danzon, Competition and Antitrust Issues in the Pharmaceutical Industry (Final Report July 2014) *The Wharton School, University of Pennsylvania*, p. 16.

<sup>105</sup> R Bate, GZ Jin, A Mathur and Attaran, Poor Quality Drugs and Global Trade: A Pilot Study. *National Bureau of Economic Research, Working Paper no. 20469*.

<sup>106</sup> Aditya Bhattacharjea and Fiyanshu Sindhvani, Competition Issues in the Indian Pharmaceuticals Sector, *Centre for Development Economics Delhi School of Economics Project Sponsored by CUTS-CIRC* (January 2014), pp 56, 81-83.

## EU COMPETITION LAW AND THE UK POST-BREXIT

**Patricia Ioana Nicolae\***

*European competition law was initially created to eliminate any actual or potential restraints on trade between Member States. However, it also applies to companies from outside of the Union and sometimes, third countries – such as Norway, Switzerland or Ukraine – choose to implement it within their domestic legislation as part of their commitments stashed as an international agreement with the EU. This article analyses why this is relevant to the UK in the context of its current withdrawal from the EU. It shows that even if the main idea of Brexit is ‘taking back control’ of both law creation and application, EU competition law will always be applicable to companies based on British territory as far as they make decisions that affect competition on the internal market.*

### **I. Introduction**

In order to be able to see why European Union (EU) competition law is relevant to the United Kingdom (UK) after Brexit, it is necessary to analyse the relationship between the two while the UK is still a Member State. This analysis will refer to competition law, merger control and state aid rules, in terms of their creation and application.

First, it is essential to mention that the competition rules represent the key provisions of EU competition law.<sup>1</sup> Looking at the UK’s domestic legislation, it can be noted that ‘the Competition Act 1998’s competition law prohibitions closely reflect articles 101 and 102 of the Treaty on the Functioning of the

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<sup>1</sup> According to Art 101 and 102 of the Treaty on the Functioning of the European Union, any ‘agreements between undertakings, decisions by associations of undertakings, concerted practices’ and ‘any abuse of a dominant position by undertakings which may affect trade between Member States’ are prohibited.

European Union (TFEU)<sup>2</sup> as they prohibit the same anti-competitive behaviour. This suggests that even if these rules have their origin in EU legislation, the UK implemented them in its domestic law in order to ensure a parallel operation of the European and national legal systems. In terms of enforcement of the competition rules, Regulation 1/2003<sup>3</sup> provides for a shared application of them in a sense that both the European Commission (Commission) and National Competition Authorities (NCA) have the power to apply them.<sup>4</sup> Consequently, in the UK, the Commission and the Competition and Markets Authority (CMA) have the power to investigate any actual or potential breach of articles 101 and 102 of the TFEU.

Secondly, in regard to mergers, the context is similar because the EU Merger Regulation 2004 is the source of the UK merger provisions. As it happened in regard to the competition rules, the UK chose to mirror the EU Merger Regulation (EUMR)<sup>5</sup> in its domestic law.<sup>6</sup> However, when it comes to enforcement of these rules, the Commission has the power to investigate such a concentration where it has ‘an Union dimension’<sup>7</sup> but it must cooperate closely with the CMA.<sup>8</sup> This suggests that as long as the UK is a Member State, domestic competition rules operate in parallel with EU rules.

In regard to state aid, things are different as articles 107-109 of the TFEU regulating State aid at EU level do not have a correspondent in the UK’s domestic legislation<sup>9</sup> which means that ‘the UK’s national State aid framework is very limited’<sup>10</sup> and ‘EU law applies directly.’<sup>11</sup> The Commission bears the responsibility ‘for approving any aid’<sup>12</sup> granted by the UK to

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<sup>2</sup> European Union Committee, *Brexit: competition and State aid* (12<sup>th</sup> Report, Session 2017-19, HL Paper 67) para 33.

<sup>3</sup> Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty (OJ L 1, 4 January 2003).

<sup>4</sup> Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EU Merger Regulation), (OJ L 24, 29 January 2004), Chapter IV.

<sup>5</sup> Niamh Dunne, ‘Competition Law and Policy after Brexit’ (March, 27 2017) *LSE Law – Policy Briefing Paper* No. 24-2017, p. 2.

<sup>6</sup> Enterprise Act 2002, Part 3 encompasses provisions in regard to this sub-area of competition law.

<sup>7</sup> Dunne (n 5) p. 3.

<sup>8</sup> *Ibid.*

<sup>9</sup> European Union Committee (n 2) para 26.

<sup>10</sup> *Ibid.*

<sup>11</sup> *Ibid.*

<sup>12</sup> *Ibid.*

different undertakings and consequently both the creation and application of State aid rules come from the EU.

This analysis suggests that the UK competition rules have their origin in EU law and the CMA and the Commission share their application.<sup>13</sup> However, things will change after Brexit as the reason why people voted to leave the EU in the first place is for the UK to be in control of its own law<sup>14</sup> creation and application,<sup>15</sup> and this certainly includes competition law. Whether or not it is possible for the UK to regain complete control, it will be seen in what follows.

## II. EU competition law and companies outside of the EU

In order to understand the reason why EU competition law is relevant to the UK post-Brexit, it is necessary to discuss why it is applicable to companies outside of the EU. It is important to mention that a company outside of the EU is an undertaking that does not have the nationality of a Member State or it does not have its headquarters in a Member State.<sup>16</sup> Such a company would not normally fall under the jurisdiction of a Member State or of the Union itself and *prima facie* the application of EU competition law might be considered inappropriate.<sup>17</sup>

The EU ‘is a major player in an increasingly globalised world economy’<sup>18</sup> and this is the reason why ‘competition policy must also adopt a global outlook’.<sup>19</sup> This suggests that the location of an undertaking became ‘immaterial for competition law.’<sup>20</sup> However, it does not mean that ‘a legal entity’s non-European nationality can be confused with the lack of links to the EU’<sup>21</sup>

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<sup>13</sup> EUMR, Chapter IV.

<sup>14</sup> Rowena Mason, ‘How did UK end up voting to leave the European Union?’ *The Guardian* (London, 24 June 2016) <<https://www.theguardian.com/politics/2016/jun/24/how-did-uk-end-up-voting-leave-european-union>> accessed 2 May 2018.

<sup>15</sup> *Ibid.*, p. 4.

<sup>16</sup> Federico Cavicchioli, ‘The Application of EC Competition Law to Non-European (U.S.) Corporations’ (2000) *University of Georgia Law*, 5-1-2000, p. 2.

<sup>17</sup> *Ibid.*

<sup>18</sup> European Commission, *Report on Competition Policy 2008* (Brussels, 23 July 2009) COM (2009) 374 final, para 116 <[http://ec.europa.eu/competition/publications/annual\\_report/2008/en.pdf](http://ec.europa.eu/competition/publications/annual_report/2008/en.pdf)> accessed 4 May 2018.

<sup>19</sup> *Ibid.*

<sup>20</sup> Cavicchioli (n 16) p. 1.

<sup>21</sup> Cavicchioli (n 16) p. 2.

because there are two types of circumstances where EU competition rules apply to a non-European company.<sup>22</sup>

**1. First, EU competition law applies where an undertaking based outside the EU makes decisions that affect<sup>23</sup> competition on the internal market.<sup>24</sup>**

It is important to mention that articles 101 and 102 TFEU do not ‘expressly refer to jurisdictional limits’<sup>25</sup> as they only refer ‘to practices having as object or result the distortion of competition.’<sup>26</sup> It means that the EU is given the liberty to consider when such practices have the potential to affect the internal market. One of the first cases where the extraterritorial application of EU competition law was considered is the *Wood pulp case*<sup>27</sup> where the Commission argued that the Union had ‘jurisdiction over non-EU undertakings which implemented a concerted practice (...) affecting trade between Member States.’<sup>28</sup> This suggests that if after Brexit a company incorporated under British law gets involved in ‘practices which may prevent, restrict or distort’<sup>29</sup> competition on the internal market, then EU competition law will be applicable to it.

Also, EU competition rules apply in cases involving mergers between EU and non-EU companies because the effect of such a concentration would have the potential to restrain trade between Member States.<sup>30</sup> For instance, in *Gencor*,<sup>31</sup> the Commission blocked a merger between a EU company and a South African one.<sup>32</sup> The South African company unsuccessfully challenged the

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<sup>22</sup> EU competition rules apply to a non-European company in case of an actual or potential breach of Art 101 or 102 TFEU.

<sup>23</sup> A decision that affects competition on the internal market is a decision that restrains trade between Member States of the EU. This is known as the effect doctrine.

<sup>24</sup> Commission Notice on the application of Article 81(3) of the Treaty (OJ C 101, 27 April 2004) para 8 <[https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52004XC0427\(07\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52004XC0427(07))> accessed 2 May 2018.

<sup>25</sup> Cavicchioli (n 16) p. 24.

<sup>26</sup> *Ibid.*

<sup>27</sup> *Re Wood Pulp Cartel: A. Ahlstrom Oy and Others v. E.C. Commission* (Wood Pulp [89/85, 114/85, 116-117/85, 125-129/85] [1988] 4 Comm. Mkt. L. R. 901 (1988).

<sup>28</sup> *Ahlstrom v Commission*, Report for the Hearing delivered in Joined Cases 89, 104, 114, 116, 117 and 129/85, 5206.

<sup>29</sup> Commission Notice on the application of Article 81(3) of the Treaty (n 24) para 8.

<sup>30</sup> Cavicchioli (n 16) p. 2.

<sup>31</sup> Case T-102/96 *Gencor Ltd. v Commission* [1999] ECR II-753.

<sup>32</sup> *Ibid.*

decision on grounds of jurisdiction because such a merger had the potential to eliminate competition on the internal market.<sup>33</sup> Consequently, the same rule will be applicable to undertakings based in the UK after Brexit: if one of those companies want to merge with a EU-company, then EU competition rules will undoubtedly apply.<sup>34</sup>

## **2. Secondly, EU competition law applies to a company based outside the Union which has subsidiaries functioning in the EU.<sup>35</sup>**

It means that a parent company and its subsidiaries can be subject to EU competition rules because they are considered a single economic entity.<sup>36</sup> For example, in *Dyestuffs*<sup>37</sup> the Court decided that a non-EU parent company was subject to EU competition law as it required its European subsidiaries to adopt an anti-competitive behaviour.<sup>38</sup> It means that a non-EU parent company can certainly be held responsible in front of the European authorities for its decisions.<sup>39</sup> This suggests that if after Brexit, a British parent company directs its European subsidiaries to adopt a behaviour that has the potential to restrain competition between Member States, EU competition rules will apply.

Therefore, it is vital to bear in mind that even after Brexit, the companies based in the UK ‘will remain within the jurisdiction of EU competition law to the extent that their anticompetitive behaviour’<sup>40</sup> affects the internal market.

### **III. Third countries and EU competition law**

Another important aspect to be discussed is that many third countries implement EU competition law in their domestic law if they want to trade

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<sup>33</sup> *Ibid.*

<sup>34</sup> Written Evidence from the Competition and Markets Authority (CMP0002).

<sup>35</sup> Cavicchioli (n 16) p. 2. This is known as the single economic entity doctrine.

<sup>36</sup> Peter Brenhens, ‘The extraterritorial reach of EU competition law revisited: the ‘effects doctrine’ before the ECJ’ Discussion Paper, Europa-Kolleg Hamburg, Institute for European Integration, No 3/16, p. 9.

<sup>37</sup> Case C-48/69 *Imperial Chemical Industries Limited v Commission* [1972] E.C.R. 619.

<sup>38</sup> This case refers to price fixing. Similar decisions were held in *Continental Can* (Case C-6/72, *Europemballage Corporation and Continental Can Company v Commission* [1973] E.C.R. 219) and *Commercial Solvents* (Joined cases 6 and 7/73 *Istituto Chemioterapico Italiano and Commercial Solvents Corp. v. E.C. Commission* [1974] 13 Common Mkt. L.R. 309).

<sup>39</sup> This can be the case even when the implementation of these decisions belongs to its European subsidiaries.

<sup>40</sup> *Dunne* (n 5) p. 2.

with the EU and a deviation from this usual path is unlikely in the case of the UK after Brexit. In order to see why and how third countries such as Norway, Switzerland and Ukraine choose to integrate EU competition law in their national legislation and what are the consequences of doing that, it is necessary to analyse the existing international agreements between the EU and each of these countries.

### 1. Norway and EU competition law

First, it is essential to mention that Norway is one of the EFTA<sup>41</sup> states and it is part of the European Economic Area Agreement (EEA). According to article 1 of the EEA,<sup>42</sup> this treaty seeks to ‘promote a continuous and balanced strengthening trade and economic relations’ between the EEA states and the EU. Consequently, in order to obtain this result, the EEA signatory states had to accept the four freedoms of the EU<sup>43</sup> and to comply with EU competition law. It means that by ratifying the EEA Agreement, Norway agreed to implement EU competition law in its domestic legislation in order to support the idea that the ‘EEA is based on common rules and equal conditions of competition’<sup>44</sup> as the EU.

Looking at competition rules, it can be noted that article 101 TFEU<sup>45</sup> was included in article 53 of the EEA Agreement<sup>46</sup> and then it took the form of Section 10 of the Norwegian Competition Act 2004.<sup>47</sup> Also, the equivalent of article 102 TFEU can be found in Section 11 of the Norwegian Act.<sup>48</sup> It means that the EU competition rules have been replicated in the EEA Agreement first and then Norway implemented them in its national legislation. Moreover, the Norwegian Competition Authority has the power to decide in cases involving possible anti-competitive behaviour<sup>49</sup> such as

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<sup>41</sup> European Free Trade Association. Norway is an EFTA state along with Iceland, Switzerland and Liechtenstein.

<sup>42</sup> Agreement on the European Economic Area, Art 1.

<sup>43</sup> Dunne (n 5) p. 2.

<sup>44</sup> European Commission on the European Economic Area and Competition Policy, <<http://ec.europa.eu/competition/international/multilateral/eea.html> > accessed 1 May 2018.

<sup>45</sup> Treaty on the Functioning of the European Union, Art 101.

<sup>46</sup> Agreement on the European Economic Area, Art 53.

<sup>47</sup> Kristin Hjelmaas Valla, Henrik Svane, Pernille Edh Hasselgard, ‘Restraints of trade and dominance in Norway: overview’ (1 December) *Thomas Reuters Practical Law*, p. 1.

<sup>48</sup> Norwegian Competition Act 2004, s. 11.

<sup>49</sup> ‘The NCA is responsible for both investigations and issuing decisions.’ Valla, Svane, Hasselgard (n 47) p. 8.

exclusive agreements.<sup>50</sup> Consequently, if the creation of competition rules belongs to the EU and Norway only implemented them into its national legislation, the application of these rules belongs to the Norwegian NCA. However, the NCA must share it with the EFTA Surveillance Authority (ESA) when the case has an EFTA dimension<sup>51</sup> or with the Commission when the case affects the internal market.<sup>52</sup>

The same mechanism is followed when it comes to merger control and State aid. As a result, Norway applies the EUMR and article 57 of the EEA in cases involving the merger of two or more undertakings. Also, both the ESA<sup>53</sup> and the Commission<sup>54</sup> share the enforcement of these rules.<sup>55</sup> Furthermore, the State aid rules applied by Norway are those ‘in the EEA Agreement and they are broadly equivalent to the State aid rules in the TFEU’<sup>56</sup>; they are also enforced by the ESA or the Commission.<sup>57</sup>

This analysis demonstrates that when it comes to competition law, Norway is ‘not able to legislate for itself but simply to accept or not the EU competition rules.’<sup>58</sup> Initially, it wanted ‘to play a role in the legislative procedure’<sup>59</sup> but this was a right given only to Member States. Also, Norway shares the application of competition rules with the Commission<sup>60</sup> and with the ESA<sup>61</sup> which means that even if Norway is not a Member State, it is not completely sovereign either as the EU gets involved in both law creation and application.

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<sup>50</sup> This was the case in *Telenor* where the ‘NCA decided that exclusive agreements restrict competition between mobile phone companies.’ Competition Law and Policy in Norway <<https://www.oecd.org/norway/34836352.pdf>> accessed 3 May 2018.

<sup>51</sup> EFTA Surveillance Authority, ‘The EEA competition rules and the role of the ESA’ <<http://www.eftasurv.int/competition/>> accessed 2 May 2018.

<sup>52</sup> *Ibid.*

<sup>53</sup> EFTA Surveillance Authority, ‘Merger control’ <<http://www.eftasurv.int/competition/merger-control/>> accessed 2 May 2018.

<sup>54</sup> Protocol 23 Concerning the Cooperation Between the Surveillance Authorities (Article 58), Art 1.

<sup>55</sup> *Ibid.* The ESA decides on concentrations with an EFTA dimension and the European Commission decides on concentrations with an EU dimension.

<sup>56</sup> EFTA Surveillance Authority, ‘The EEA state aid rules and the role of ESA’ <<http://www.eftasurv.int/state-aid/>> accessed 29 April 2018.

<sup>57</sup> Protocol 27 on Cooperation in the Field of State Aid.

<sup>58</sup> Eugenia Caracciolo di Torella, ‘The EEA Agreement: What is the point?’ (1995) 1992 *Inter Alia* 13, p. 13.

<sup>59</sup> *Ibid.*, p. 2.

<sup>60</sup> When the case has an EU dimension.

<sup>61</sup> When the case has an EFTA dimension.

## 2. Why is this relevant to the UK after Brexit?

It is relevant to the UK because joining the EEA may be an option after Brexit.<sup>62</sup> However, this may not be a viable option. First, joining the EEA, the UK would have to accept ‘the transposition of all EU directives and regulations (...) without participating in the decision making.’<sup>63</sup> This is certainly not going to happen<sup>64</sup> as the desire to take control back is what determined people to vote in favour of Brexit.<sup>65</sup> Norway might be ‘happy eating other’s people’ recipes’<sup>66</sup> but it is clear that the UK was not happy enough having ‘access to the kitchen’.<sup>67</sup> Second, joining the EEA, the UK would have to accept the surveillance role of the ESA<sup>68</sup> which is similar to the role played by the Commission.<sup>69</sup> It would also mean accepting the authority of the Commission itself which is certainly not a compromise that the UK would be willing to make.<sup>70</sup>

Therefore, Norway is a good example of a third country that implemented EU competition rules in its national legislation in order to have an agreement with the EU. It is likely that the UK would choose to keep a part of these rules in its domestic legislation after Brexit,<sup>71</sup> but following Norway’s example and joining the EEA may be ‘a legally possible option in theory, but it is certainly not politically realistic.’<sup>72</sup>

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<sup>62</sup> Written evidence from Herbert Smith Freehills LLP (CMP0029).

<sup>63</sup> Jean-Claude Piris, ‘Why the UK will not become an EEA member after Brexit?’ *ESharp* (September 2017) Debates the UK and Europe <<https://esharp.eu/debates/the-uk-and-europe/why-the-uk-will-not-become-an-eea-member-after-brexite>> accessed 5 May 2018.

<sup>64</sup> ‘UK will become a law taker from a law maker.’ Professor Adam Lazowski, ‘Norwegian model for the UK: oh really?’ (30 March 2016) *The UK in a Changing Europe*.

<sup>65</sup> Mason (n 14) p. 4.

<sup>66</sup> Caracciolo di Torella (n 58) p. 14.

<sup>67</sup> *Ibid.*

<sup>68</sup> Dunne (n 5) p. 2.

<sup>69</sup> Robert Strivens, ‘Competition Law under the EEA Agreement’ (1993) 21 *International Business Law*, p. 512.

<sup>70</sup> Caracciolo di Torella (n 58) p. 14.

<sup>71</sup> This would not be surprising as the UK itself ‘has played a significant role in the development of EU competition law.’ European Union Committee (n 2) para 164.

<sup>72</sup> Piris (n 63) p. 9.

### 3. Switzerland and EU competition law

Switzerland is an EFTA state, but it is not part of the EEA Agreement.<sup>73</sup> The relationship between the EU and Switzerland is governed by series of bilateral agreements<sup>74</sup> that include EU competition rules. It means that these agreements comprise provisions similar to the EU competition law, merger control and State aid rules which have been implemented in the Swiss domestic legislation.

The level of implementation of EU competition law in Switzerland is different from that of Norway.<sup>75</sup> For instance, in terms of merger control, the idea of a prohibition of mergers that ‘substantially impede effective competition (...) as a result of the creation of a dominant position’<sup>76</sup> was inspired by EU competition law.<sup>77</sup> However, the provision implemented in the Swiss domestic legislation through the Federal Act on Cartels and Other Restraints of Competition (ACart) is ‘more permissive’<sup>78</sup> as it only prohibits ‘mergers that are likely to eliminate competition.’<sup>79</sup> Also, the enforcement of these merger control provisions belongs to the Swiss National Competition Authority (ComCo). The Commission has limited access to Swiss companies, in a sense that it can only intervene regarding mergers that have an EU dimension.<sup>80</sup> This can be seen in the case involving a merger between Johnson & Johnsons and Synthes where the Commission got involved because the competition on the internal market could have been affected.<sup>81</sup>

Moreover, the Swiss State aid rules are different than the European ones and they differ from an agreement to another. For example, article 13 of the Air Transport Agreement<sup>82</sup> pictures a provision very similar to article 107 TFEU;

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<sup>73</sup> OXERA Agenda Advancing economics in business, ‘Brexit: implications for state aid rules’ (June 2016) <<https://www.oxera.com/Latest-Thinking/Agenda/2016/Brexit-implications-for-state-aid-rules.aspx>> accessed 1 May 2018.

<sup>74</sup> *Ibid.*

<sup>75</sup> This can be illustrated by analysing the TFEU provisions that were meant to be incorporated into these agreements and the way they are actually formulated.

<sup>76</sup> Suzanne Rab, Ilyse Stempler and Gerald Brei, ‘EU and Swiss Competition Law: Navigating the Boundaries’ (February 2012) SZW/RSDA Kurzbeitrag, p. 141.

<sup>77</sup> *Ibid.*

<sup>78</sup> *Ibid* p. 141.

<sup>79</sup> *Ibid.*

<sup>80</sup> *Ibid* p. 140.

<sup>81</sup> *Ibid* p. 138.

<sup>82</sup> Agreement between the European Community and the Swiss Confederation on Air Transport, Art 13.

the prohibition of ‘any aid granted to an undertaking in any form and which threatens to distort competition’ is very clear.<sup>83</sup> However, this is not the case if one looks at article 23 (iii) of the Agreement between the EEC and the Swiss Confederation<sup>84</sup> where the prohibition is vague and leaves room for interpretation.

Looking at the competition rules, it can be said that they are the most in line with EU competition rules as Art 8 and 9 of the Air Transport Agreement<sup>85</sup> and Art 23 (i)(ii) of the Agreement between the EEC and the Swiss Confederation<sup>86</sup> picture provisions similar to articles 101 and 102 TFEU. It means that these provisions have their origin in EU rules, but they have been replicated in the Swiss domestic legislation. Again, the application of these provisions mainly belongs to ComCo and the Commission has the power to intervene only if necessary.<sup>87</sup> This was the case in *Hoffman-La Roche*<sup>88</sup> and *Siemens*<sup>89</sup> where the Commission imposed fines on these two companies for having an anti-competitive behaviour.<sup>90</sup>

Consequently, even if EU competition rules have their equivalent in different bilateral agreements between Switzerland and the EU and in the Swiss national law, it does not mean that they are identical. Switzerland aligned its competition law as much as possible with EU rules, but there are still many gaps between the two.<sup>91</sup> The Swiss system seems to be more permissive in regard to mergers and state aid<sup>92</sup> and sometimes it creates uncertainty for businesses.<sup>93</sup>

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<sup>83</sup> Agreement between the European Community and the Swiss Confederation on Air Transport (n 97) Art 13.

<sup>84</sup> Agreement between the European Economic Community and the Swiss Confederation, Art 23.

<sup>85</sup> Agreement between the European Community and the Swiss Confederation on Air Transport (n 97) Art 8-9.

<sup>86</sup> Agreement between the European Economic Community and the Swiss Confederation (n 100) Art 23.

<sup>87</sup> The Commission can intervene where a certain behaviour affects the internal market.

<sup>88</sup> Case 85/76 *Hoffman-La Roche & Co AG v Commission* (85/76) [1979] ECR 461.

<sup>89</sup> C-239/11 P *Siemens AG v Commission* [2014] CMLR.

<sup>90</sup> The Commission fined Hoffman-La Roche and Siemens for getting involved in unlawful price fixing cartels.

<sup>91</sup> OECD, ‘Competition Law and Policy in Switzerland’ (March 2006) Policy Brief <<http://www.oecd.org/competition/36386974.pdf>> accessed 3 May 2018.

<sup>92</sup> OXERA Agenda Advancing economics in business (n 73) p. 4.

<sup>93</sup> The uncertainty comes from the fact that even if an undertaking is not in breach of Swiss competition law, it may be in breach of EU competition rules.

#### 4. Why is this relevant to the UK after Brexit?

This is relevant to the UK because first, both countries present a similar picture: in Switzerland people voted not to join the EU in the first place<sup>94</sup> while in the UK people voted to leave the Union.<sup>95</sup> Second, the Swiss model might be convenient for the UK as it would be happy to enjoy ‘customized’ treaties with the EU but it is highly unlikely that the Union would be willing to agree with this because the Swiss experience proved that bilateral agreements are really complicated.<sup>96</sup> Therefore, Switzerland is another third country that implemented EU competition rules in its domestic legislation to some extent. It might be convenient for the UK to become a ‘Britzerland’<sup>97</sup> after Brexit but it is certain that the EU is not willing to follow the Swiss example in this case.

#### 5. Ukraine and EU competition law

The relationship between Ukraine and the EU is governed by the Association Agreement 2014 (AA) and unlike the EEA and its signatory states, the AA ‘does not offer Ukraine the prospect of EU membership;’<sup>98</sup> it only offers Ukraine ‘tariff-free access for goods to the single market’.<sup>99</sup> However, it does not mean that Ukraine has the benefit of this agreement without giving anything in return because one of the conditions of the AA is that Ukraine must align its domestic legislation with EU competition law.<sup>100</sup> Consequently, Ukraine has already implemented a high number of European competition rules into its national law but there is still room for improvement.

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<sup>94</sup> Imogen Foulkes, ‘EU referendum: Can Switzerland show UK route to Brexit?’ *BBC News* (Geneva, 23 February 2016) < <http://www.bbc.co.uk/news/uk-politics-eu-referendum-35615604>> accessed 4 May 2018.

<sup>95</sup> Mason (n 14) p. 4.

<sup>96</sup> They are complicated in a sense that they are expensive and time consuming.

<sup>97</sup> Thomas Stephens, ‘Would the Swiss model suit a post-Brexit Britain?’ <[https://www.swissinfo.ch/eng/politics/eu-negotiations\\_would-the-swiss-model-suit-a-post-brexit-britain/42128110](https://www.swissinfo.ch/eng/politics/eu-negotiations_would-the-swiss-model-suit-a-post-brexit-britain/42128110)> accessed 3 May 2018.

<sup>98</sup> Andrew Duff, ‘Could UK choose a ‘Ukrainian model’ after Brexit?’ *EURACTIVE* (October 2016) <<https://www.euractiv.com/section/uk-europe/opinion/could-uk-choose-a-ukrainian-model-after-brexit/>> accessed 6 May 2018.

<sup>99</sup> *Ibid.*

<sup>100</sup> Kseniya Smyrnova, ‘Enforcement of Competition Rules in the Association Agreement between the EU & Ukraine’ (2014) *Yearbook of Antitrust and Regulatory Studies*, Vol. 2014, 7(10), p. 264.

In regard to the competition rules, it can be seen that article 101 TFEU was included in article 254 AA<sup>101</sup> and then reflected in article 6 of the Law of Ukraine ‘On Protection of Economic Competition.’<sup>102</sup> The correspondent of article 102 TFEU is pictured in articles 13 and 22 of the Law of Ukraine ‘On Protection of Economic Competition’.<sup>103</sup> Moreover, in regard to merger control, the Law of Ukraine<sup>104</sup> was amended in 2016<sup>105</sup> and this led to an accelerated harmonisation of the Ukrainian competition law with EU law. This suggests that the Ukrainian competition law is deeply rooted in EU competition rules.

Ukraine is not as successful in regard to the application of these rules<sup>106</sup> as it was in terms of their creation. This is because even though according to article 255 AA<sup>107</sup> the Anti-Monopoly Committee (AMCU) should follow the example of the Commission,<sup>108</sup> in practice its decisions depart from the European approach. For instance, the AMCU had to decide a number of cases<sup>109</sup> involving pharmaceutical companies that adopted anti-competitive behaviour<sup>110</sup> and it fined all these undertakings.<sup>111</sup> However, the fines have increased gradually from one case to another and there was no reasonable justification for that.<sup>112</sup> This suggests that the AMCU ‘focuses on applying

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<sup>101</sup> The Association Agreement between the European Union and its Member States, of the one Part, and Ukraine, of the other part, Art 254.

<sup>102</sup> Law of Ukraine ‘On Protection of Economic Competition’ 2001, Art 6.

<sup>103</sup> Smyrnova (n 100) p. 269.

<sup>104</sup> The Law of Ukraine ‘On Protection of Economic Competition’ 2001.

<sup>105</sup> Lexis PSL, ‘Ukraine merger control’ (2016) <[https://sk.ua/wpcontent/uploads/sk\\_files/ukraine\\_merger\\_control\\_2016\\_-getting\\_the\\_deal\\_through\\_2.pdf](https://sk.ua/wpcontent/uploads/sk_files/ukraine_merger_control_2016_-getting_the_deal_through_2.pdf)> accessed 5 May 2018.

<sup>106</sup> Competition law application belongs to the Antimonopoly Committee of Ukraine, thereafter cited as AMCU.

<sup>107</sup> The Association Agreement between the European Union and its Member States, of the one Part, and Ukraine, of the other part, Art 255.

<sup>108</sup> Michael Emerson, Veronika Movchan, *Deepening EU – Ukrainian Relations. What, why, how?* (Rowman & Littlefield International, London, 2016) p. 114.

<sup>109</sup> The *Alcon Case*, the *Servier Case* and the *Sanofi Case* in Timur Bondaryev, Dmytro Galchynskiy, ‘The Ukrainian Competition Authority’s latest decision in the pharmaceutical sector’ *Kluwer Competition Law Blog* (Arzinger, 11 December 2017) <<http://competitionlawblog.kluwercompetitionlaw.com/2017/12/11/ukrainian-competition-authoritys-latest-decision-pharmaceutical-sector/>> accessed 6 May 2018.

<sup>110</sup> *Ibid.*

<sup>111</sup> *Ibid.*

<sup>112</sup> *Ibid.* This increase could not be justified as being directly proportional to the effect on competition on the market.

penalties without justifying its decisions.’<sup>113</sup> This behaviour leads to a ‘lack of fairness and transparency in the enforcement process’<sup>114</sup> which has the potential to produce ‘uncertainty for businesses.’<sup>115</sup> Therefore, it means that Ukraine has to improve the way the AMCU applies EU competition law that has already been implemented in its national legislation in order to bring its creation and application in line with EU rules.

Furthermore, it is necessary to mention that State aid was not regulated in Ukraine prior to the adoption of the AA.<sup>116</sup> As a result, Ukraine adopted a State Aid Law<sup>117</sup> which reflects EU State aid rules. However, the general awareness about State aid legislation is very low due to the lack of a proper enforcement mechanism.<sup>118</sup> Consequently, improving the ability of the AMCU to apply the State aid rules would raise the level of alignment of the Ukrainian competition law with the European one.

Therefore, Ukraine is a good example of a country that was required to implement EU competition law in its national legislation. However, it fulfilled this requirement only in part in a sense that even if many of the EU competition rules have their equivalent in the Ukrainian law, their enforcement is only partially effective.<sup>119</sup>

## 6. Why is this relevant to the UK after Brexit?

This is relevant as a similar Association Agreement may bring both the EU and the UK ‘a partnership that has the potential to suit them in the future.’<sup>120</sup> First, this would be the case because such an agreement would not bring with

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<sup>113</sup> *Ibid.*

<sup>114</sup> Smyrnova (n 100) p. 274.

<sup>115</sup> *Ibid.*

<sup>116</sup> ‘Article 262 AA imposed upon Ukraine the obligation’ to adopt an act in this regard. Smyrnova (n 100) p. 274.

<sup>117</sup> ‘On 2 August 2017 the Law of Ukraine On State Aid to Undertakings entered into force.’ Valentyna Hvozd and Vladimir Sanyenko, ‘Competition in Ukraine: Feel the 2017 Progress’ (5 February 2018) <<http://www.mondaq.com/x/670642/Antitrust+Competition/Competition+In+Ukraine+Feel+The+2017+Progress>> accessed 6 May 2018.

<sup>118</sup> Emerson, Movchan (n 108) p. 116.

<sup>119</sup> *Ibid.*

<sup>120</sup> Tony Barber, ‘Ukraine may be closer than Norway to UK post-Brexit’ (January 2018) <<https://www.ft.com/content/11d621a8-f538-11e7-88f7-5465a6ce1a00>> accessed 5 May 2018.

it the four freedoms of the Union.<sup>121</sup> It means that having an agreement with the EU without being required to accept free movement of persons ‘might appeal to Brexiteers.’<sup>122</sup> The EU may not be willing to accept a ‘departure from the doctrine of all freedoms’<sup>123</sup> as it is not in its best interest ‘to promote a new type of integration without membership.’<sup>124</sup>

Second, a similar Association Agreement would allow the UK to have access to the single market.<sup>125</sup> However, it is essential to remember that in Ukraine’s case, the EU is still the party deciding ‘the terms of entry to the EU market and the role of EU competition law.’<sup>126</sup> In this case, it is certainly clear that the UK is not willing to accept to continue being under the Union’s control as the main reason for leaving the Union is to regain its sovereignty.<sup>127</sup> Consequently, ‘there may need to be a little more flexibility’<sup>128</sup> on both sides; otherwise a similar agreement can be taken out of the equation.

Therefore, the EU – Ukraine AA is one of the international treaties that is close to what both the UK and the EU want to achieve, and it would be worth accepting a few compromises in order to achieve a similar agreement and not end up having a unilateral Brexit.<sup>129</sup>

#### **IV. Concluding Remarks**

In conclusion, the current UK competition rules have their origin in EU law<sup>130</sup> and the CMA and the Commission share responsibility in regard to their application.<sup>131</sup> This will certainly change after the Brexit but the British

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<sup>121</sup> Michael Emerson, ‘Which Model for Brexit?’ (No. 147/ October 2016) *CEPS Special Report*, p. 6.

<sup>122</sup> ‘The perception of uncontrolled migration into the UK was a raw issue in the 2016 referendum.’ Barber (n 120) p. 2.

<sup>123</sup> Emerson (n 121) p. 6.

<sup>124</sup> This would set an example of possible ‘stability and prosperity’ outside the Union. Barber (n 120) p. 3.

<sup>125</sup> Duff (n 98) p. 4.

<sup>126</sup> Erika Szyszczak, ‘A UK Brexit Transition: To the Ukraine Model?’ (November 2017) Briefing Paper 11, *UK Trade Policy Observatory*, p. 4.

<sup>127</sup> *Ibid* p. 5.

<sup>128</sup> *Ibid* p. 6.

<sup>129</sup> A unilateral Brexit ‘should be nothing more than an academic exercise.’ Professor Adam Lazowski, ‘No deal can be worse than...no deal: pitfalls of unilateral Brexit’ (13 April 2017) *The UK in a Changing Europe*.

<sup>130</sup> European Union Committee (n 2) para 33.

<sup>131</sup> EUMR Chapter IV.

companies ‘will nonetheless remain within the jurisdiction of EU competition law if their anticompetitive behaviour affects the internal market.’<sup>132</sup>

Moreover, many third countries such as Norway, Switzerland and Ukraine implemented EU competition rules in their national legislation as they wanted to trade with the Union. However, it is difficult for the UK to find a good model of an existing international agreement that is worth considering after Brexit. First, following the Norwegian model would not be convenient for the UK as it would not bring its sovereignty back.<sup>133</sup> Second, following the Swiss model would be convenient for the UK but inconvenient for the EU as creating many bilateral agreements would be expensive and time consuming. Third, the EU – Ukraine AA might be an international treaty close to what both the UK and the Union want but it would also involve compromises on both sides; otherwise, the UK would end up having a ‘no deal’ Brexit that would cause political, legal and economic chaos.<sup>134</sup>

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<sup>132</sup> Dunne (n 5) p. 3.

<sup>133</sup> Lazowski (n 64) p. 8.

<sup>134</sup> European Union Committee (n 2) para 1.

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